Report Title:	**Responsible Investment**
Contains Confidential or Exempt Information	No - Part I
Lead Member:	Councillor Simon Bond, Chairman Pension Fund Committee and Advisory Panel
Meeting and Date:	Pension Fund Committee and Advisory Panel – 19 June 2023
Responsible Officer(s):	Damien Pantling, Head of Pension Fund
Wards affected:	None

REPORT SUMMARY

Whilst responsible investing and ESG have always been guiding principles in the Fund's investment strategy, the decision to pool funds with LPPI from 1 June 2018 enabled more active monitoring and consolidation of its responsible investment outcomes.

Following the release of an Environmental, Social and Governance (ESG) public statement in late 2020, the Fund approved a Responsible Investment (RI) policy on 22 March 2021 supported by several values, principles, and priorities. Since then, the Fund has been continuously improving its approach to RI and have been working towards an updated RI policy that was approved by the Committee on 12 October 2022.

This report aims to update the reader quarterly on the Fund's responsible investment activities and outcomes through presenting an RI report and dashboard as aligned with the Fund's RI policy – noting that climate change is one of the underlying priorities in the Fund's revised RI policy and therefore carries material weight in this update. This report also seeks to provide the reader with a suite of key engagement activities undertaken on behalf of the Fund and the outcomes of these engagements.

In addition, this report covers a detailed climate scenario analysis report which was undertaken by the scheme Actuary as part of our 2022 triennial valuation

1. DETAILS OF RECOMMENDATION(S)

RECOMMENDATION: That the Pension Fund Committee notes the report;

- **i) Approves the Fund's RI dashboard, RI report, active engagement report for publication; and**
- **ii) Acknowledges the Climate Risk Analysis report as provided by Barnett Waddingham for discussion.**

2. REASON(S) FOR RECOMMENDATION(S) AND OPTIONS CONSIDERED

2.1 Since 1 June 2018, all Fund investments have been actively managed or overseen by the Fund's Investment Manager LPPI. Responsible investing is an underpinning principle of LPPI's investment approach and is documented by a suite of detailed RI policies and reports available on their website.

2.2 From December 2021, the Fund has reported publicly on its implementation and outcomes concerning responsible investment. The report and dashboard to Q1 2023 (or Q4 2022/23) are included respectively at Appendix 2 and Appendix 3 to this report.

2.3 Notably, the report and dashboard shows full "green/brown" portfolio exposures to all of the Fund's equity and equity-like assets (listed equity, private equity, and infrastructure) plus corporate bonds within fixed income. The key takeaways from this analysis are as follows:

2.3.1 Investments in brown sectors (extraction, transportation, storage, supply, and generation of energy from fossil fuels) make up just 2.08% of the portfolio.

2.3.2 Investments in green sectors (renewable energy generation, clean technology, and decarbonising activities) make up over 6.96% of the portfolio.

2.4 As illustrated above, the green exposure significantly outweighs the brown exposure by over 3x within the identified portfolio, underpinning the principle of "net" zero. Further work is being progressed by LPPI in relation to Net Zero Target setting and its Climate Solutions Fund project, with the intention of capturing the entire portfolio for green/brown exposure analysis in the near future.

2.5 As detailed in the Fund's Responsible Investment policy, "the RCBPF considers engagement to be a route for exerting a positive influence over investee companies and encouraging responsible corporate behaviour." The Fund (via LPPI) has appointed an engagement partner to ensure active engagement with companies across its credit and equity portfolios, seeking to improve a company's behaviour on ESG related issues. The Fund's active engagement outcomes are reported at Q1 2023 (or Q4 2022/23) on the Fund's website.

2.6 Officers previously included the active engagement report as a separate appendix to this RI report, however, this is now summarised by LPPI in the main RI report at Appendix 2, focusing on its application to the Fund's investment portfolio. The full engagement report is still provided, but on the Fund's website for additional reading instead of as the part of the core meeting papers, in the interest of streamlining the agenda for better decision making.

2.7 Whilst a separate RI policy is not compulsory for LGPS Funds under the Regulations, the Local Government Pension Scheme (Management and Investment of Funds) Regulations 2016, Regulation 7 requires that the Authority's Investment Strategy Statement (ISS) must include the its policy on how ESG considerations are taken into account in the selection, non-selection, retention and realisation of investments. The Fund's ISS (presented for approval

by the Committee on 13 March 2023) defines that a separate RI policy shall be in place with detailed guidance on the points within the Regulations, and that implementation of said RI policy would be undertaken by LPPI.

2.8 A decision was taken by the Pension Fund Committee on 6 December 2021 to set up a RI working group (the Task & Finish Group) of Officers, Committee members, Board members, Advisory Panel members, LPPI and independent Advisors. Terms of Reference were agreed and the group first met in April 2022. The Task & Finish group undertook various other meetings and discussions to develop a comprehensive revised RI policy that is modern, consistent with the current external environment, and that it reflects the values, principles and priorities of the Pension Fund Committee. The revised RI policy also serves as a position statement on the Fund's approach to RI.

2.9 The revised RI policy was approved by the Pension Fund Committee on 12 October 2022. LPPI have also given a professional opinion that the policy shall be implemented in practice and tailored reporting has been reflected in the relevant RI report and dashboard (appendix 2 and 3). The revised RI policy encapsulates several changes such as the focus on continuous improvement as well as specific priorities of the Fund within the Environment, Social and Governance categories. The policy is underpinned by the Fund's fiduciary responsibility to pay scheme members benefits as they fall due.

2.10 Consideration of climate risk was an important part of the triennial valuation process and final report which was signed off by the Committee in March 2023. It was agreed in March 2023 that the Fund would hold a separate training session on climate risk which was then held in June 2023.

2.11 To supplement the 2022 triennial valuation and climate risk training session, the scheme Actuary Barnett Waddingham have prepared a detailed climate analysis report which is attached at Appendix 1 to this report. This report considers both physical and transition risks to the Fund's anticipated future funding levels along with life expectancy and employer covenant considerations within this detailed scenario analysis report.

2.12 The purpose of the Climate Analysis Report at appendix 1 is intended to be for information only at this stage as it supports the Fund Actuary's view that the prudence applied through the 2022 triennial valuation was sufficient to capture the effects of climate risk. The report is acknowledged by both the Fund and it's fiduciary investment manager LPPI and shall be considered in future Strategic Asset Allocation (SAA) and Investment Strategy Statement (ISS) reviews.

2.13 It is important to note that the Climate Risk Analysis report considers the risk of climate change to the Fund's assets, liabilities and funding level, providing reassurance that sufficient prudence is applied through the 2022 triennial valuation to withstand any of the modelled climate scenarios. This report is not intended to provide guidance or advice on how the Fund's asset allocation should change, but instead to provide reassurance that the current Strategic Asset Allocation is robust enough to endure the various pressures on funding level directly or indirectly caused by climate change.

3. KEY IMPLICATIONS

3.1 The Fund is receiving a growing number of Freedom of Information (FOI) requests regarding how the Fund's investment assets are being managed and invested responsibly. Moreover, the recent focus has been on environmental factors concerning carbon emissions and fossil-fuel exposure. The Fund's RI report and dashboard acts as a public document to be updated quarterly and aims to address the majority of public requests for information.

3.2 The RI policy has undergone extensive review by the 'Task & Finish' group and has been confirmed by LPPI to be implementable in practice with no material changes to the Fund's investment activities or objectives.

3.3 The Fund seeks to achieve good ESG credentials whilst maintaining strong investment performance. Evidence suggests these two are not mutually exclusive, therefore, the Fund seeks to achieve both over the long run provided it can meet its fiduciary responsibility to scheme members and employers.

4. FINANCIAL DETAILS / VALUE FOR MONEY

4.1 Net-zero strategy development and LPPI's decision to exclude extractive fossil fuel companies from its global equities fund has involved divesting from a relatively small opportunity set. However, these investments consumed disproportionate stewardship resources and the associated costs of maintaining these. Exclusion of these assets enables attention to move to a broader range of sectors impacted by transition risk and are required to decarbonise, providing the Fund with future opportunities and an improved framework to manage risk.

4.2 At present, the Fund's investment performance and expected returns are not mutually exclusive to the achievement of its revised responsible investment policy outcomes. Therefore, the Fund's fiduciary duty and ultimate goal to pay pensions is not adversely affected by implementation of its revised RI policy but this shall be kept continuously under review.

4.3 Well-governed companies are best equipped to manage business risks and opportunities, and this contributes to achieving optimum risk-adjusted returns over the long term.

5. LEGAL IMPLICATIONS

5.1 Reporting against RI metrics and making a net-zero commitment are not legal or regulatory requirements. TCFD reporting requirements, when published, will be a legal requirement and legislated by DLUHC (Department for Levelling up, Housing and Communities). These requirements will likely involve penalties and levies by tPR for non-compliance. TCFD requirements shall be implemented in due course and the Fund shall monitor these developments closely

5.2 The Fund is compliant with the Local Government Pension Scheme (Management and Investment of Funds) Regulations 2016 (Regulation 7) which requires that the authority's investment strategy statement (ISS) must include the authority's policy on how social, environmental and corporate governance considerations are taken into account in the selection, non-selection, retention and realisation of investments. The Fund's ISS (last approved by the Pension Fund Committee in March 2023) defines that a separate RI policy shall be in place with detailed guidance on the points within the Regulations, and that implementation of said RI policy would be undertaken by LPPI. The revised RI policy is this compliant with the regulations.

6. RISK MANAGEMENT

6.1 The Pension Fund Committee review and approve a risk register on a quarterly basis, prepared in line with CIPFA's guidance on "managing risks in the LGPS – 2018". The latest risk register (including relevant actions and mitigations) has been prepared alongside the amendments within this report, with any relevant changes considered and documented as appropriate in the quarterly risk management report.

7. POTENTIAL IMPACTS

7.1 Failure to comply with pension legislation could result in the Administering Authority being reported to the Pensions Regulator where failure is deemed to be of a material significance.

7.2 Equalities. An Equality Impact Assessment has been completed for this report. The Equality Act 2010 places a statutory duty on the council to ensure that when considering any new or reviewed strategy, policy, plan, project, service, or procedure the impacts on particular groups, including those within the workforce and customer/public groups, have been considered. There are no EQIA impacts as a result of taking this decision. Equality Impact Assessments are published on the council's website

7.3 Climate change/sustainability: This report is centred around the topic of climate change and sustainability and such impacts are documented in detail through the report and its appendices.

7.4 Data Protection/GDPR. GDPR compliance is included as a specific risk on the register in regard to processing and handling personal data, this is dealt with in the relevant risk report to the Committee along with the relevant mitigations.

8. CONSULTATION

8.1 The Fund's Investment Advisor LPPI and scheme actuary Barnett Waddingham was consulted in preparing this report.

9. TIMETABLE FOR IMPLEMENTATION

9.1 Responsible investment outcomes are not subject to any specific timeline and are instead ongoing. Specific interim net-zero targets and plans are set out in the relevant appendices to prior Responsible Investment reports presented to the Pension Fund Committee.

10. APPENDICES

10.1 This report is supported by 3 appendices:

- Appendix 1: Climate Risk Analysis
- Appendix 2: Responsible Investment Report Q1 2023
- Appendix 3: Responsible Investment Dashboard Q1 2023

11. BACKGROUND DOCUMENTS

11.1 This report is supported by one background document available in the "policies and reports" section of the Pension Fund website

- Responsible Investment Policy (October 2022)

12. CONSULTATION (MANDATORY)

Name of consultee	Post held	Date sent	Date returned
Mandatory:	*Statutory Officers (or deputy)*		
Andrew Vallance	Head of Finance (Interim S151 Officer)	**05/06/2023**	**09/06/2023**
Elaine Browne	Head of Law and Governance (Interim monitoring officer)	**05/06/2023**	**13/06/2023**
Deputies:			
Jane Cryer	Principal Lawyer (Litigation) and Deputy Monitoring Officer	**05/06/2023**	
TBC			
Other consultees:			
Cllr Simon Bond	Chairman – Berkshire Pension Fund Committee	**02/06/2023**	
Alan Cross	Chairman – Local Pension Board	**02/06/2023**	

13. REPORT HISTORY

Decision type:	Urgency item?	To follow item?
Pension Fund Committee decision	~~Yes~~/No	~~Yes~~/No

Report Author: Damien Pantling, Head of Pension Fund

Royal County of Berkshire Pension Fund

Climate analysis report as at 31 March 2022

Barnett Waddingham LLP
22 February 2023

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Executive summary

There is clear scientific evidence that human activities are causing climate change. The Royal County of Berkshire Pension Fund (the Fund) faces potential risks from both the physical effects of climate change and the transition to a low-carbon economy.

Climate risk may manifest itself through many of the risks which the Fund already faces such as inflation risk and investment risk, which can potentially cause a deterioration in the Fund's funding position.

The purpose of this paper is to consider climate risk in the context of the Fund's 2022 actuarial valuation. This paper sets out climate scenario analysis on the assets and liabilities of the Fund based on the data and information received for the 2022 actuarial valuation.

The key features of this report are:

Climate risks

- For our analysis we have grouped climate risks into:
  - Physical climate risks
  - Transition climate risks

Other risks

- Climate risk can manifest itself in several other risks that the Fund is already exposed to such as:
  - Employer covenant risk
  - Investment risk
  - Inflation risk
  - Mortality risk
  - Legislative risk
  - Operational risk

Key Principles

- Agreed between the four actuarial firms, the Government Actuary's Department (GAD) and the Department of Levelling Up Housing and Communities (DLUHC)
- Climate risk will feature as part of the Section 13 review of the 2022 valuations

Climate scenarios and key metrics

- The BW framework tests four scenarios (early action, late action, no additional action, far too little too late)
- **Based on the scenario testing, we are comfortable with the current level of prudence included in our proposed funding assumptions**

Introduction and background

This paper sets out climate scenario analysis on the assets and liabilities of the Royal County of Berkshire Pension Fund (the Fund) in-line with the Key Principles agreed with the Government Actuary's Department (GAD) for the purpose of the 2022 LGPS valuations. In producing this analysis, we have also considered the requirements under the Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 however, these regulations do not apply to the LGPS. We anticipate that the equivalent regulations that will ultimately apply to the LGPS will contain similar requirements.

The purpose of this report is to present information to help Royal Borough of Windsor and Maidenhead, as the administering authority to the Fund, consider climate risk in the context of the Fund's 2022 actuarial valuation. This report also sets out measures the administering authority could take to manage climate risk.

The analysis focuses solely on climate related attributes and combines a mixture of qualitative and quantitative assessments, considering the Fund's investment strategy and other unique characteristics.

The results of the analysis can be used by the administering authority to consider the Fund's exposure to climate risks and opportunities. It may feed into the Fund's Task Force on Climate-related Financial Disclosures (TCFD) report, when required.

The analysis considers the projected funding level under various climate-related scenarios, alongside the (proposed) 2022 valuation basis for the Fund. The results thereby allow the administering authority to consider whether the 2022 valuation funding strategy is sufficiently robust in the context of this climate scenario analysis and any potential contribution impacts.

The climate scenarios used are set out in the body of this report and relate to specific targets and global temperature changes, although we recommend these are taken as illustrative only. Qualitative commentary is included throughout to help provide context to the analysis, covering the impact on the Fund's assets, liabilities, and employer covenant.

This advice complies with Technical Actuarial Standard 100: Principles for Technical Actuarial Work (TAS 100) and Technical Actuarial Standard 300: Pensions (TAS 300) as issued by the Financial Reporting Council (FRC).

Climate risks

For our analysis, we have grouped climate risks into the following two categories:

Physical climate risks

This is the direct risk associated with an increased global temperature. This may include acute physical risks (such as heatwaves, landslides, floods, wildfires and hurricanes) and chronic physical risks (such as rising sea levels, changes in precipitation and more volatile weather events). These risks may put an invested asset (or an asset of an underlying company) directly at risk of damage; may cause disruption throughout supply chains and the global economy and/or may lead to higher costs on invested assets or underlying companies (such as insurance and litigation costs).

Transition climate risks

This is the risk associated with the transition to a low carbon economy. The main risk is assumed to be the potential impact of the enforcement of carbon taxes and policies (it is assumed that this risk is higher for regions and sectors with a higher level of, and hard to abate, emissions). However, other risks may include wider policy and regulation risk, technological risk, market risk, litigation risk, and reputational risk.

Physical risks

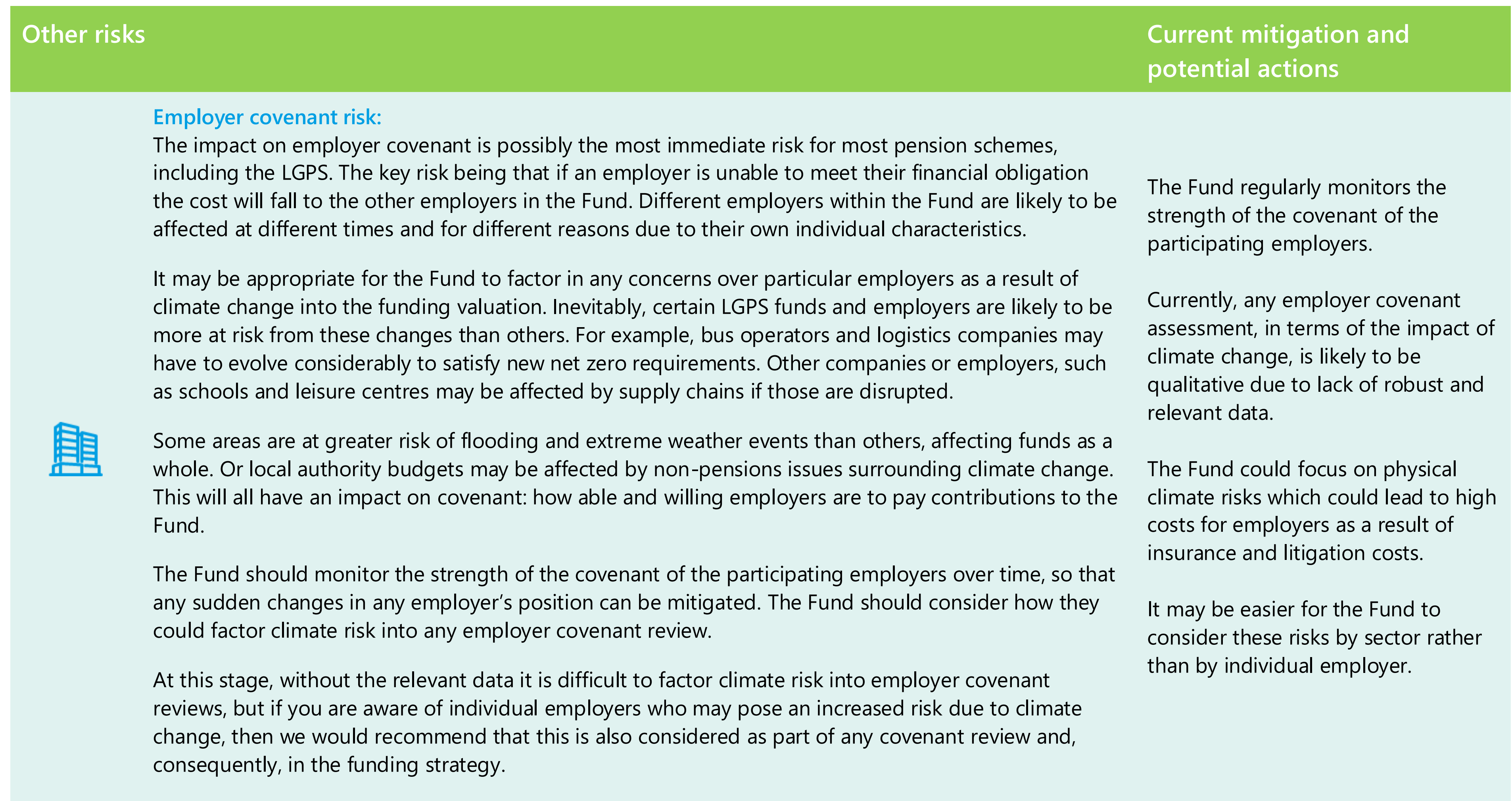
- Droughts
- Floods
- Wildfires
- Sea level rises
- Loss of biodiversity
- Heatwaves

Transition risks

- Carbon tax
- Constrains on consumption of natural resources
- Policy changes in land use and farming practices
- Impact on labour skills development
- Reputational risk

Other risks

Climate risk can manifest itself in several other risks that the Fund is already exposed to such as:



Other risks	Current mitigation and potential actions
Employer covenant risk: The impact on employer covenant is possibly the most immediate risk for most pension schemes, including the LGPS. The key risk being that if an employer is unable to meet their financial obligation the cost will fall to the other employers in the Fund. Different employers within the Fund are likely to be affected at different times and for different reasons due to their own individual characteristics. It may be appropriate for the Fund to factor in any concerns over particular employers as a result of climate change into the funding valuation. Inevitably, certain LGPS funds and employers are likely to be more at risk from these changes than others. For example, bus operators and logistics companies may have to evolve considerably to satisfy new net zero requirements. Other companies or employers, such as schools and leisure centres may be affected by supply chains if those are disrupted. Some areas are at greater risk of flooding and extreme weather events than others, affecting funds as a whole. Or local authority budgets may be affected by non-pensions issues surrounding climate change. This will all have an impact on covenant: how able and willing employers are to pay contributions to the Fund. The Fund should monitor the strength of the covenant of the participating employers over time, so that any sudden changes in any employer's position can be mitigated. The Fund should consider how they could factor climate risk into any employer covenant review. At this stage, without the relevant data it is difficult to factor climate risk into employer covenant reviews, but if you are aware of individual employers who may pose an increased risk due to climate change, then we would recommend that this is also considered as part of any covenant review and, consequently, in the funding strategy.	The Fund regularly monitors the strength of the covenant of the participating employers. Currently, any employer covenant assessment, in terms of the impact of climate change, is likely to be qualitative due to lack of robust and relevant data. The Fund could focus on physical climate risks which could lead to high costs for employers as a result of insurance and litigation costs. It may be easier for the Fund to consider these risks by sector rather than by individual employer.

	Investment risk: For funding purposes, the discount rate used to value the Fund's liabilities reflects the expected return on the investments that the Fund holds (reduced by a margin for prudence). Funds generally invest in equities, bonds and property, along with other alternative assets. The price of these depends on the market outlook of how each company underlying the investments will perform in the future. To the extent that the market has anticipated the effect of climate risk on each company, it is already reflected within the discount rate. However, climate risk is complex and whilst it is easy to imagine the various ways that climate change could impact an energy company, for example, it becomes less clear with other companies such as those in the service or healthcare sectors. If the market cannot anticipate or agree on the impact, then it is *unlikely* this will be priced into today's market value or return expectation – in particular where investors' timeframes vary. Allowance is made in the funding assumptions for the expected long-term performance of risk-seeking asset classes such as equities, but an explicit allowance for climate risk has not yet been included. There is a risk that these returns will not be achieved in practice due to climate risk. Some funds already have a net zero pledge in place and therefore both funding strategy and investment strategy need to be aligned in order to achieve this. The Fund should therefore regularly review the investment strategy specifically with regards to climate risk, to ensure the risks are understood and managed appropriately.	The Fund receives regular updates from their investment advisers and asset managers about how climate risks are allowed for in the Fund's investment strategy. The Fund's policy on environmental, social and governance (ESG) considerations, including climate change, is included in the Fund's Investment Strategy Statement. The Fund may wish to consider any opportunities as well as risks emerging from climate change in incorporate those into the investment strategy. The Fund should regularly monitor the funding position of the Fund, this can be done using our online intervaluation funding monitoring system, Monitor.
	Inflation risk: Inflation is another of our key assumptions, with the majority of LGPS benefits increasing in line with the Consumer Prices Index (CPI) each year. No one knows how inflation will move over the long term. However, we look to the bond market to gauge the market's expectations of this to set our assumption for the valuation. As is the case for the discount rate, however, if the inflationary impact of climate risk is not being priced into the bonds in the market, then this will have a knock-on effect on our inflation assumption – the impact of which is, again, unknown. We have not made any additional adjustments to our inflation	The Fund periodically reviews the level of inflation risk inherent in the Fund's investment strategy with their investment advisers.

	assumption for the 2022 valuation with regards to climate risk. There is a risk that long-term inflation will be different to assumed for the valuation due to climate risk. If inflation is higher, this will increase the cost of providing the benefits. The Fund should therefore consider the inflation risk present within the Fund when reviewing the investment strategy.	
	Mortality risk: It is easy to see that climate change will have an effect on how long we will all live, but it's more difficult to gauge exactly how. The list of implications of how it will affect the world is long (and growing) and includes risks like zoonotic pandemics such as Covid-19. But how much of that will impact on the life expectancy for members of UK pension schemes? How quickly will an effect be seen? And will it vary by location? For example, it is possible that in the UK, longevity might actually improve due to climate change. If winters are milder in future, then that could mean fewer deaths. On the other hand, if our summers get too hot then that might not count for much. It is not possible to predict with certainty how long members of the Fund will live and, if members live longer than expected, additional contributions will be required to prevent a deterioration in the Fund's financial position. The Fund should therefore keep the mortality assumptions under review.	The Fund takes advice from their Fund Actuary on appropriate changes to the Fund's mortality assumptions.
	Legislative risk: Changes in legislation could change the approach that the Fund has taken to managing climate change. Task Force on Climate-related Financial Disclosures (TCFD) is a framework that aims to help companies and investors measure, manage, and report their climate-related risk exposures and opportunities in a consistent manner. At the time of this report, we are still awaiting the consultation regarding the proposals for new requirements for assessing and reporting on climate risks in line with the recommendations of the TCFD and how they apply to the LGPS. Therefore, we have no new regulations or guidance to inform this analysis. However, we have agreed an approach with DLUHC and GAD for the 2022 actuarial valuations.	The Fund receives regular updates on legislative matters from their advisers.

	Further to this, funds face additional risks through the secondary effects of policies introduced by governments. For example, The European Union's (EU's) expansion in 2021 of the Emission Trading Scheme (ETS) made companies pay for the cost of carbon, including the car industry and domestic heating and the carbon border adjustment mechanism requiring goods imported into the EU to be covered by equivalent carbon pricing applicable to production of the same goods within the EU, under the ETS. These types of policies increase the cost of production, affecting businesses and consumers and may affect the investment returns received. The Fund should therefore take professional advice to ensure that they are aware of any changes in legislation and the impact of these changes on the Fund's funding position.	
	Reputational risk: LGPS funds are expected to take action to mitigate climate risk. They are under increasing pressure from the general public to invest sustainably and to communicate their net zero targets. It is easy for funds to be compared against each other in their progress and therefore those funds making the least progress will be highlighted. As mentioned, funds are being asked to make an allowance for climate risk in the 2022 valuations. Any challenges to this requirement are likely to be highlighted and/or flagged in the next Section 13 report.	By engaging with this scenario analysis, the Fund has met the requirements of the Section 13 review and therefore should not be highlighted (for this reason) in the final report.
	Operational risk: Although many physical implications of climate change are expected to play out over decades-long timescales, in the UK we are already seeing increased short-term localised disruption due to flash floods and power cuts. Depending on the location of critical services, these have the potential to disrupt the day-to-day operations of the Fund, including the payment of pensions to members. It is likely that in future such events will increase both in frequency and duration. Transition effects may also impact the running costs of the Fund (in the same way that the current spike in gas and petrol costs, although driven by non-climate-related factors, will be increasing expenses).	The Fund already has procedures in place covering Business Continuity Planning for short-term disruption, but these may need to be reviewed to ensure that they are sufficiently robust in light of the expected increase in frequency and duration of such disruptions, particularly in the context of increased working-from-home.

Key Principles

Barnett Waddingham has worked with GAD and the other actuarial firms to agree a set of Key Principles for how LGPS funds would undertake climate change scenario analysis as part of the 2022 valuations.

The Key Principles behind the climate scenario analysis have been agreed in order to assist GAD in their 2022 Section 13 review of the LGPS funds. In their 2019 Section 13 report dated November 2021, GAD noted:

> *"DLUHC will be consulting on proposals for new requirements for assessing and reporting on climate risks in 2021 in line with the recommendations of the Taskforce on Climate-related Financial Risks (TCFD), and new regulations and guidance are expected to follow. Climate risk will be a focus in future section 13 reports. GAD will facilitate dialogue and engagement with DLUHC, actuarial advisors and the SAB prior to publication of the 2022 valuations to ensure a consistent approach is adopted."*

DLUHC's consultation on governance and reporting of climate change risks was launched 1 September 2022 and closes on 24 November 2022. Barnett Waddingham considered the consultation and submitted a response.

The Key Principles agreed with GAD for 2022 valuation reporting are split into four areas:

Key Principles		Fund/BW action
1.	**Scope of the analysis** The scope was deliberately kept wide to reflect the various levels of that progress that different funds will have made on their journey in managing climate risk. It was agreed that any analysis should be able to identify the impact of transition risk (shorter term) and physical risks (longer term) on the potential funding outcomes. The purpose of the analysis is to test whether the Fund's funding strategy is sufficiently prudent in the context of the scenario analysis considered and therefore any potential contribution impacts. The analysis should be supported by qualitative commentary on what potential actions are being taken to improve resilience to climate change and the potential implications.	The scenario analysis within this report separates the impact into transition risks and physical risks. This report comments on the suitability of the funding strategy. Qualitative commentary is included in the "Other risks" section.

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	Requirement	BW approach
2.	**Scenarios to be considered and "expected" funding level** As a minimum, each fund should select two scenarios to consider: "Paris-aligned" and higher temperature outcome, and compare these to the funding basis. "Paris-aligned" is an optimistic basis which assumes that good progress is made towards the ambitions made in the 2015 Paris Agreement. A higher temperature outcome assumes that no new climate policies are introduced beyond those already agreed, resulting in a growing concentration of greenhouse gas emissions and a larger increase in global temperatures. Funds should also consider the extent to which the scenarios will consider additional elements such as the potential impact on life expectancy changes and employer covenant.	The scenario analysis in this report looks at four scenarios. Our "early action" scenario aims to represent a "Paris-aligned" scenario, and our "no additional action" scenario represents a higher temperature outcome. We also consider a "late action" and a "far too little too late" scenario. The impact on the funding position of each scenario is then considered in the "Projected funding level" section of this report. Additional elements are described in the "Other risks" section.
3.	**Time horizon and output** The output from the scenario analysis will include consideration of the results (which will include the funding level on each scenario modelled) over a period of at least 20 years to ensure there is sufficient recognition of the transition and physical risks of climate change.	The scenario analysis looks at the impact on funding the period to 2050.
4.	**Reporting** A summary of the analysis should be included in the final valuation report. GAD will be looking to confirm that the two scenarios have been considered in a way that funds and other readers can understand. It may also need to be referenced in the Section 13 dashboard included in the final valuation report. The Fund's approach to managing climate risk in the valuation, should also be set out in the Funding Strategy Statement (FSS).	BW will continue to engage with GAD on the 2022 reporting requirements in order to ensure consistency with the other LGPS funds. BW will also provide wording for inclusion in the FSS.

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Climate scenarios and key metrics

The climate scenarios within Barnett Waddingham's in-house climate scenario framework consist of four scenarios, which are broadly based on those used in the Bank of England's Biennial Exploratory Scenario (further details of which can be found in Appendix 1). A brief description of these scenarios is set out below.

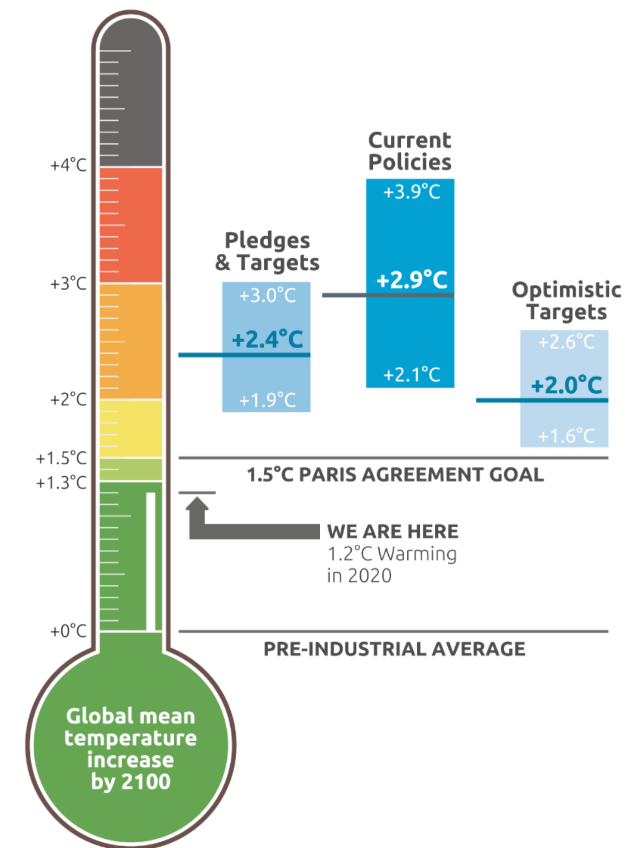
Scenario	Brief description	Assumed temperature rise* by 2100	Approx. carbon price** 2030/2050	Physical risk	Transition risk
Early action (Paris-aligned)	Transition to net zero begins in year one, alongside assuming carbon pricing and policy intensifies over time. The long-term average return under this scenario is equivalent to the best estimate return calculated for the 2022 valuation of the Fund, effectively assuming the market is pricing in early action on climate risks.	1.6°C	$300/$900	Limited	Medium
Late action	Policy implementation is more sudden and disorderly due to delay, resulting in disruption over the medium term.	1.6°C	$30/$1,000	Limited	High
No additional action	No new climate policies are introduced beyond those already agreed, resulting in a growing concentration of greenhouse gas emissions and a larger increase in global temperatures. This results in changes in precipitation and increases the frequency and severity of extreme weather events. A temperature rise of 2.3°C is assumed to happen over the short term.	4.1°C	$30/$20	High	Limited
Far too little too late	This scenario has been created by Barnett Waddingham and accumulates the impacts of a "late action" scenario and a "no additional action" scenario. The scenario considers what may happen if the implementation of polices is more sudden and disorderly due to delay and, despite action, a larger increase in global temperatures still occurs. (It should be noted however that even this scenario does not represent a "worst case".)	4.1°C	$30/$1,000	High	High

* Relative to pre-industrial levels
** Approximate assumed price in 2010 real terms to offset one ton of carbon dioxide in 2030 and 2050, respectively. Like other commodities, price increases with demand.

We do not expect any one of these scenarios to play out exactly in full and actual experience will differ from that projected within the scenarios. However, these illustrations can be used as a guide to consider climate risk within the Fund's funding and investment strategy, thereby helping the Fund to monitor, manage and potentially mitigate specific risks.

The picture to the right shows how global temperature rises could change, based on national policies and pledges, giving context to the temperature rise considered under each scenario in this report.

The picture has been taken from the Climate Action Tracker (based on national polices and pledges end of December 2019) ourworldindata.org



Analysis of the Fund's assets

Using the Fund's long-term investment strategy, as provided to us for the 2022 valuation, we have assessed the climate risk impact under each of the scenarios set out above. The scenarios cover a range of outcomes, from global warming being limited to global warming increasing significantly. However, in reality, the risks may be significantly more material than implied within these scenarios.

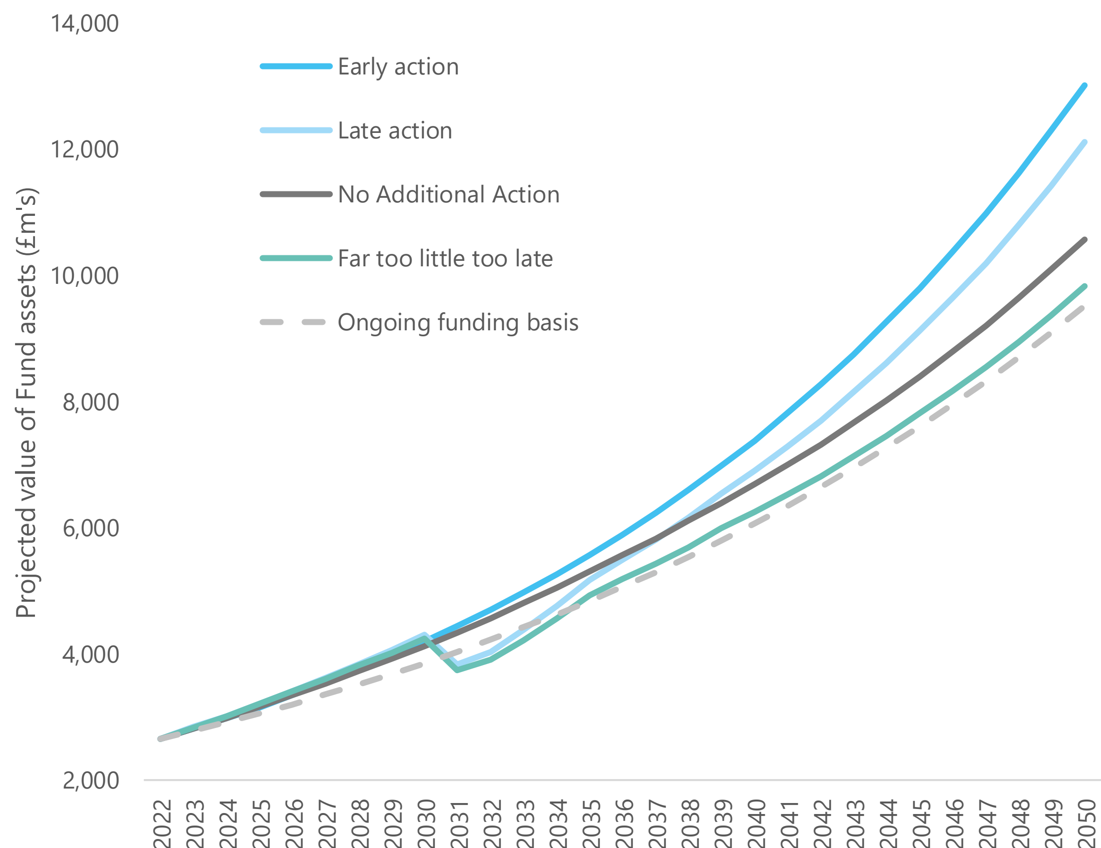
All scenarios effectively consider the current market mispricing of assets and future returns. This may be the case for a vast number of reasons, for example, due to lack of climate risk data for investors, stranded assets, impact on yields through issuance of greater bond supply, or currency risk if not all countries adapt equally.

The Bank of England Biennial Exploratory Scenario data used for our projections utilises a "top-down" approach (that is, at a macroeconomic level), rather than a "bottom-up" approach (at a company level). A bottom-up approach may provide for more granular results, however, given the quality and availability of data, the expectation that climate impacts will be systemic and the nature of UK pension scheme investments (that is, they are primarily invested in pooled funds with various underlying asset classes and numerous securities), a top-down approach was viewed as being more appropriate.

Barnett Waddingham's analysis looks at the impact of climate risk on each asset class at a given point in time. We have grouped the Fund's investment strategy into the same groupings used for the purpose of deriving the discount rate assumption used in the 2022 actuarial valuation and applied the Bank of England Biennial Exploratory Scenario data to each asset class. A breakdown of the asset projections by asset type under each scenario has been included in Appendix 2.

For the avoidance of doubt, our asset projection does not make any allowance for any steps that the Fund may have already taken to reduce emissions and manage climate risk. Further "bottom-up" analysis would be required to incorporate this. Nor does it allow for adjustments at future valuation dates.

The graph below illustrates the estimated pathway of the Fund's assets under each scenario. A projection on the ongoing funding basis is also included for comparison.



The “early action” scenario is used as the base case, and each of the other scenarios are considered relative to this scenario over the period to 2050. The difference between the projected assets under the “early action” scenario and the ongoing funding basis reflects the prudence allowance included for ongoing funding only.

The Fund’s projected assets under each scenario differs and the assets under the ongoing funding basis sit below those on any other scenario in the long-term. This shows that in the long-term, the asset return assumed for the ongoing funding basis is sufficently prudent to withstand the risk of these climate scenarios (albeit the prudence allowance is intended to act as a buffer against other non climate-related risks too).

However, in the medium-term, assets projected on the “late action” and “far too little too late” scenarios fall below those projected in line with the ongoing funding basis. These scenarios assume climate policy implementation is more sudden and disorderly, resulting in disruption and a sharp fall in returns while policies bed in (during the early 2030s).

In practice, we will continue to monitor the return on the Fund’s assets and any changes in our best-estimate outlook will be incorporated into the assumptions used for future valuations. If, for example, our best-estimate outlook shifts downwards towards the late action scenario then our funding projection would shift downwards too (maintaining the same level of prudence as we do currently).

Projected funding level

The Fund's liabilities are also subject to climate risks and opportunities. For example, inflation may increase due to resource constraints or decrease due to lower economic growth, life expectancies might be impacted by physical climate risks (e.g, drought, flooding), or operational costs might increase due to changes in the supply and demand of certain resources.

In this section we consider the impact of the different scenarios on the Fund's overall funding position.

Conditions of analysis

Due to the current lack of robust data, no assumption has been made for potential climate change impacts on mortality in our scenario analysis. We will keep this under review and consider any new information for future reviews of this analysis.

In our calculations we have used member data and asset data provided by the administering authority as part of the 2022 actuarial valuation. We checked the data for reasonableness as part of the valuation process and are happy that the data is sufficiently accurate for the purposes of this analysis.

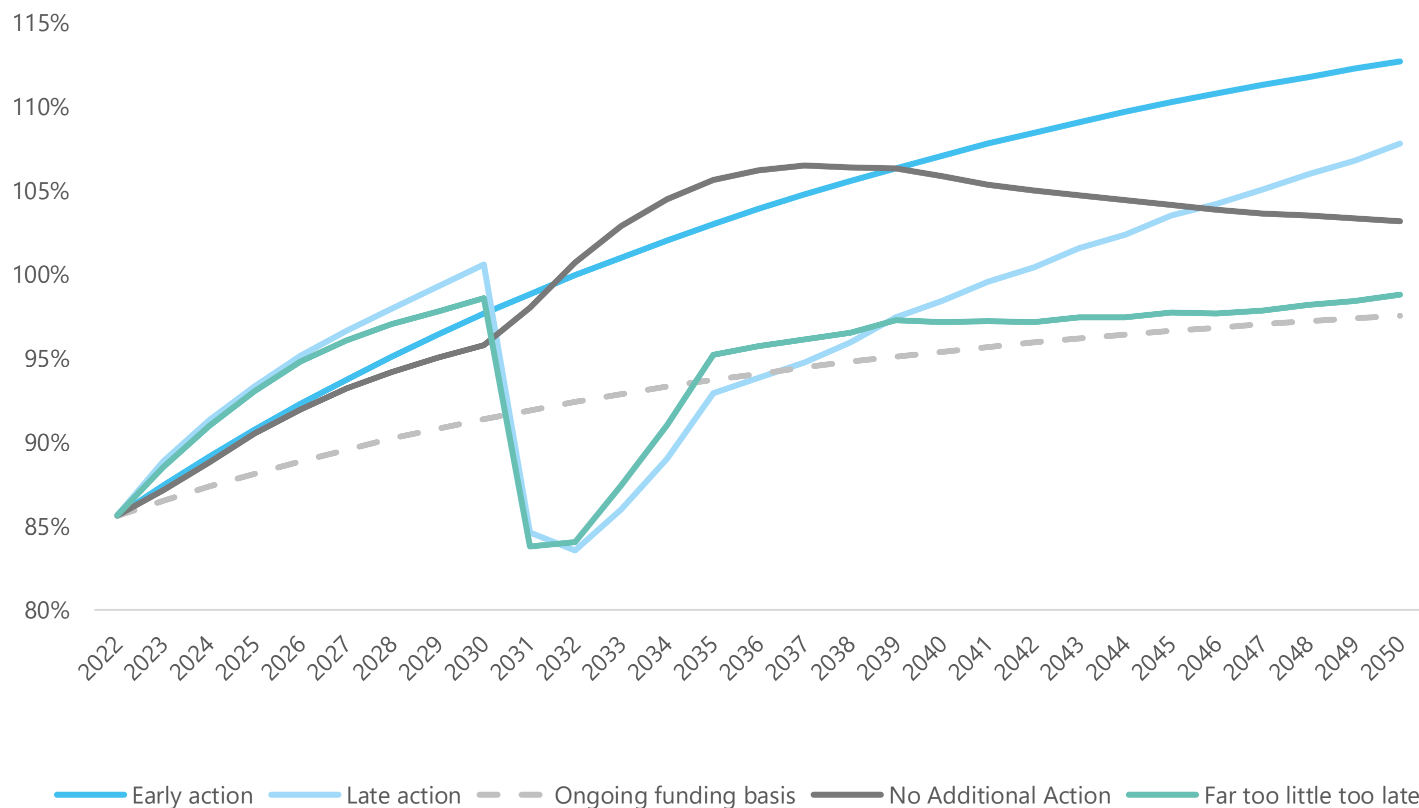
Results

The Fund's liabilities have been projected based on the data and assumptions used for the 2022 valuation. The ongoing funding basis projection assumes the (proposed) 2022 valuation assumptions play out in practice, with no adjustments made at future valuation dates. Whereas the early action scenario assumes that our 'best estimate' assumed return is achieved on the Fund's assets, that is the 2022 discount rate with the margin for prudence removed. The other climate scenario projections are then calculated with reference to the early action scenario using The Bank of England Biennial Exploratory Scenario data.

In our funding model, both the discount rate and benefit increases are linked to the assumed level of inflation. Because of this, the impact of changes in projected inflation on the liability value are minimal. Therefore, the projected values of liabilities are broadly similar across all climate scenarios.

In reality, it is unlikely that there would be this level of disparity between the scenarios over the long-term, as contributions and assumptions would be revisited every three years as part of the Fund's actuarial valuation. However, for the purposes of this analysis, we have calculated the projections in line with the (proposed) 2022 valuation assumptions.

Combining the liability projections with the asset projections, the graph below shows how the Fund's funding level is expected to vary across the scenarios and time periods. This projection assumes that secondary (deficit) contributions are paid to restore the funding level to 100% over a rolling 17 year period on each scenario.



Over the short-term (up to 10 years), the funding level is influenced most by the impact on asset returns under a "late action" and a "far too little too late" scenario, driven by the assumption that physical risk is present from day 1.

Over the medium-term (10 – 20 years), the funding level is influenced most by the impact on asset returns under a "late action" and "far too little too late" scenario, driven by the introduction of sudden and disorderly policies. However, these impacts are somewhat recovered over time.

Over the long-term (20 years or more), the funding levels under all scenarios become less volatile but the outlook is most positive under the "early action" and "late action" scenarios under which the funding position continues to improve. Unsurprisingly, where no additional action or too little action is taken, the funding level is more materially and adversely impacted, although remains above ongoing funding basis over the long term.

The Fund may be able to reduce the impact experienced on its funding level across each of the scenarios and time periods by considering the Fund's investment strategy and using this report in discussions with their investment advisers. As part of any such review, the Fund should consider the other risks and opportunities to which the Fund is exposed (as detailed earlier in the report).

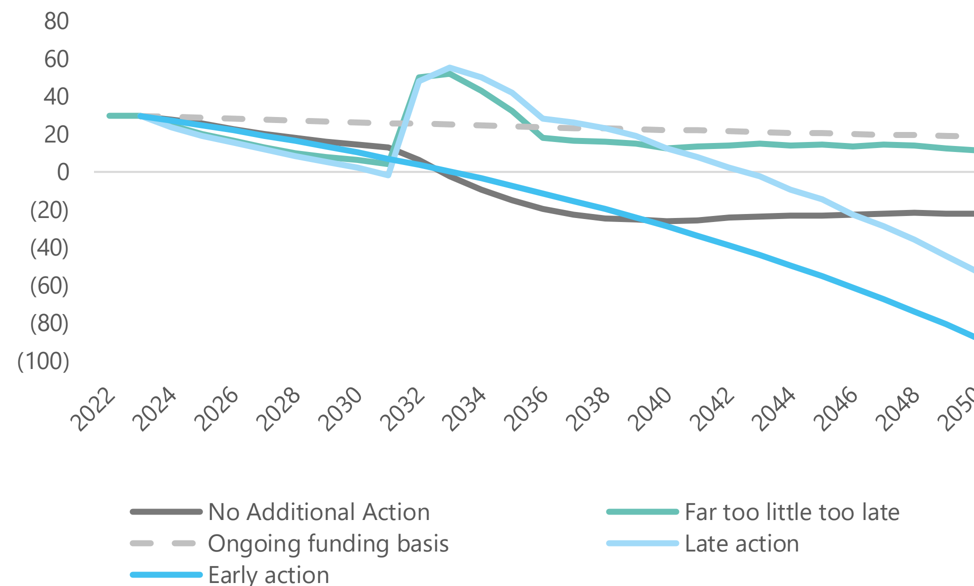
Employer contributions

Our projection assumes that secondary (deficit) contributions are paid to restore the funding level to 100% over a rolling 17 year period on each scenario (the Fund's base recovery period). This means that for the purpose of our projections, the recovery period never gets any shorter. This also means that different secondary contributions are assumed to be paid under each scenario.

The graph to the right shows the projected secondary (deficit) contributions required under each scenario, calculated assuming a rolling 17 year recovery period. As we are assuming a rolling recovery period, the secondary contributions on the ongoing funding basis never fully disappear in these projections. In practice, the contributions payable and associated recovery period would be reviewed at each funding valuation and adjusted as appropriate, i.e., the recovery period is unlikely to remain fixed.

The graph illustrates that, the ongoing secondary contributions are projected to be insufficient in the medium-term should the "late action" or "far too little too late" scenarios play out in practice and larger injections of cash may be required.

We suggest the Fund monitors the situation over the next valuation period, carrying out further climate scenario analysis as and when new information become available. Monitoring of the funding position can be done on a regular basis using our Monitor software which is our online intervaluation funding monitoring system.



Final comments

The Fund has varying levels of climate risk across its assets and liabilities.

Our analysis considers the Fund's funding level under different climate scenarios and there are varying impacts. The largest impacts are experienced over the medium term, under a "late action" and "far too little too late" scenario (primarily driven by transition risks) and over the long-term under a "far too little too late" scenario (primarily driven by physical risks).

The ability to mitigate the climate risk impact on the Fund's liabilities is limited, although consideration should be given to the 2022 valuation basis used to calculate the contributions paid by employers to the Fund, to ensure the administering authority is comfortable with the level of risk being taken.

Climate risk is only one risk that the Fund faces. The prudence allowance included in the valuation assumptions is intended to act as a buffer against all downside risks, not just those relating to climate change.

Based on the scenario testing in this report, we are comfortable with the current level of prudence included in our proposed funding assumptions. Over the short-term, our analysis shows there is some leeway to allow the Fund time to react to worsening conditions and put appropriate measures in place. We will of course keep this under review and, if at subsequent valuations it looks as though we are going down a "late action" type path, we will update our assumptions accordingly.

Next steps

Climate change and managing climate risk is becoming increasingly important. With draft regulations on the way, it is anticipated that it will become necessary for administering authorities to consider climate risk in relation to the Fund.

There are a number of actions set out in this paper, which the Fund could consider in managing climate risk including:

- Different employers are likely to be affected by climate change in different ways, and at different times. The administering authority should stay alert to this and continuously monitor employer covenant to ensure that any changes in covenant are revealed. Any changes should be dealt with as required and as soon as possible, in order to best protect the Fund and the other participating employers. Given the lack of robust data, the Fund may choose to consider climate risk by sector, rather than by individual employer.
- The Fund should regularly monitor the funding position of the Fund. This can be done using our Monitor software.

- The administering authority may also wish to consider the climate risk and opportunities of the Fund's assets and investment strategy. This should be discussed with the Fund's investment advisers. Barnett Waddingham's Investment Consulting team would also be happy to carry out a more in-depth analysis of your investment strategy for you, if desired.
- The Fund should take advice from their Fund Actuary on appropriate changes to the Fund's mortality assumptions at future valuations.
- The Fund should ensure they are in receipt of regular updates on legislative matters from their advisers.

We look forward to discussing this paper with you in more detail.

Barry McKay

Barry McKay FFA
Partner
Barnett Waddingham LLP

Appendix 1 Approach to climate scenario analysis

Overview

Barnett Waddingham's in-house climate scenario framework utilises the Bank of England's Biennial Exploratory Scenario to undertake climate scenario analysis. These scenarios build upon a subset of the Network for Greening the Financial System (NGFS) climate scenarios, which have been produced in partnership with leading climate scientists and make use of climate economic models.

The Bank of England Biennial Exploratory Scenario is not exhaustive concerning asset classes, regions, sectors, funds, macro-economic indicators and scenarios. Therefore, Barnett Waddingham's in-house climate scenario framework combines a mixture of qualitative and quantitative methods to assess climate impacts across all required areas.

The Bank of England Biennial Exploratory Scenario also utilises a "top-down" approach (that is, at a macroeconomic level), rather than a "bottom-up" approach (at a company level). A bottom-up approach may provide for more granular results, however, given the quality and availability of data, the expectation that climate impacts will be systemic and the nature of UK pension scheme investments (that is, they are primarily invested in pooled funds with various underlying asset classes and numerous securities), a top-down approach was viewed as being more appropriate.

Nevertheless, Barnett Waddingham's framework does allow for a bottom-up approach to be incorporated at Fund level, by breaking down the Fund's long-term investment strategy, although we have not done so for this analysis. If the Fund would like to receive more in-depth analysis of their investment strategy, we would be happy to liaise with our Investment Consulting team to prepare this for you. Detailed information on the breakdown of your asset strategy would be required.

Our analysis does not consider the impact of climate change on mortality due to the current lack of data in this area.

Climate scenario modelling is in its infancy and is expected to undergo significant development over time. Furthermore, climate scenario data quality is generally considered spurious and non-comprehensive. As a result, we intend to develop and build upon this analysis over time as data quality and availability improves.

In creating this framework, Barnett Waddingham has recognised these limitations and aims to address them by creating a solution that combines quantitative and qualitative analysis.

Key assumptions

Current market pricing

The Bank of England data includes projected returns and yields on several asset classes up to 2050, under three scenarios – "early action", "late action", and "no additional action". Barnett Waddingham's model examines the differences between these projections under each scenario and applies them to our own funding model, to allow for comparison with the Fund's ongoing funding basis, rather than using the Bank of England data in isolation. To do this we need to make an assumption regarding what, in respect of climate change, is already priced into the markets.

We generally believe that the market is pricing in somewhere between the "early action" scenario and "late action" scenario.

We have spoken to several modelling providers who have provided a range of answers. Very few providers model a "base case" representative of the market's assumed view. However, from what we have seen, modelling providers that do take into account a market "base case" scenario tend to show a positive relative impact under an "early action" scenario, implying that they agree that an "early action" scenario is more optimistic than what the market expects.

We also believe that, as time goes on without a global consensus on climate policy, it is likely that the market will increasingly price in a "late action" scenario.

Exactly how much the market is pricing in at any one time is difficult to predict. Therefore, for our analysis, we have taken a pragmatic approach and, instead of trying to second guess the market, we have used our "early action" scenario as our base case (i.e., equal to our best estimate of market assumptions for the 2022 valuation and excludes any prudence allowance). This means that our base scenario may be seen as somewhat 'optimistic', but results in our risk measures being conservative (as we consider downside risk relative to this scenario).

Projected employer contributions

Employer contributions comprise of primary contributions (covering the annual cost of accrual of benefits) and secondary contributions (as an adjustment to the primary rate as required i.e. payments towards any deficit that may exist). For our projections we have calculated the cost of accrual under each scenario and assumed that primary contributions will be paid in line with this in each case. Similarly, to benefit increases, our discount rate is linked to CPI inflation, and therefore the primary contributions required under all scenarios is assumed to be broadly constant.

The secondary contributions allowed for under each scenario have been calculated to recover the deficit under each scenario over a rolling 17 year period. We have done this to better reflect the action the Fund may be required to take in adjusting contributions under each scenario if that scenario played out.

The funding projections shown are therefore not entirely indicative of what would happen in practice – in reality, three-yearly funding valuations would be carried out and the contributions payable would be recalibrated in line with the funding position and the Funding Strategy Statement, adjusting the recovery period appropriately. However, the projections do still highlight a wide range of outcomes that may be possible, depending on how climate matters progress.

Asset allocation

The Fund's assets are assumed to be invested in line with the strategic asset allocation used for the 2022 valuation, at all future dates. In practice, the strategic asset allocation should be reviewed on a regular basis, and it is unlikely this would remain constant over the next 30 years. Any changes to the asset allocation may affect the Fund's exposure to climate risk and therefore would alter our projections. Our analysis, therefore, only captures the risks projected under the current long-term investment strategy as used for the 2022 valuation and the derivation of the discount rate.

Timeframes

The Fund's investment strategy has been assessed under each scenario across a 30-year time horizon, which has been split into three segments of ten years (short-term, medium-term, and long-term). Ranges, rather than precise years, have been used due to the uncertainty of exact timings regarding climate events. The rationale for selecting these periods is set out below.

Short-term (0-10 years)

Over this period, we would expect significant improvements in modelling and data quality with regards to climate scenario analysis. Furthermore, under an "early action" scenario, we would expect significant progress by global governments and corporations, given the importance of significant changes being made by 2030 to limit global warming.

Medium-term (10-20 years)

Over this period, we may expect the impacts of a "late action" scenario to be at their highest. This is expressed as a ten-year range, as there is great uncertainty regarding the precise timing of any "late action".

Long-term (20-30 years)

Over this period, under an "early action" and "late action" scenario, we would expect global governments' and corporations' carbon emissions to be tending towards zero, in order to meet any net zero targets by 2050. Furthermore, under a "no additional action" and a "far too little too late" scenario, we would expect impacts to be at their greatest at the end of the scenario period (that is, by 2050).

Future reviews

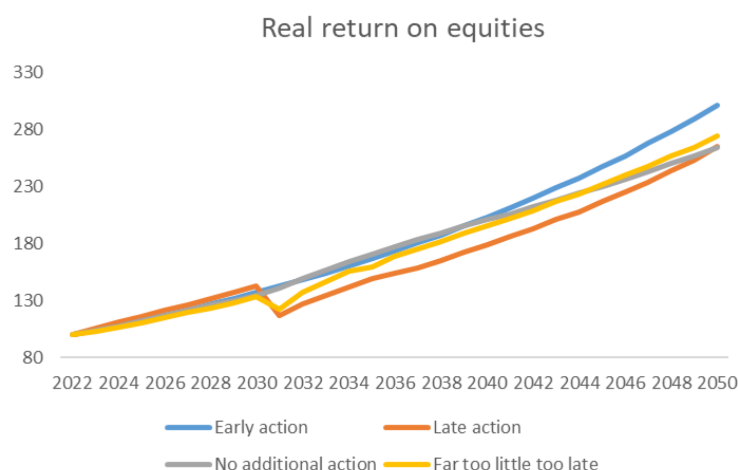
Barnett Waddingham will review and adapt our framework on an ongoing basis but expect to undertake a full-scale review during the next LGPS funding valuation, by which time we would expect a material increase in the quality and coverage of climate scenario analysis forecasts and climate data. If earlier support is required following the draft regulations from DLUHC, we would be happy to help and we will be in touch with more information.

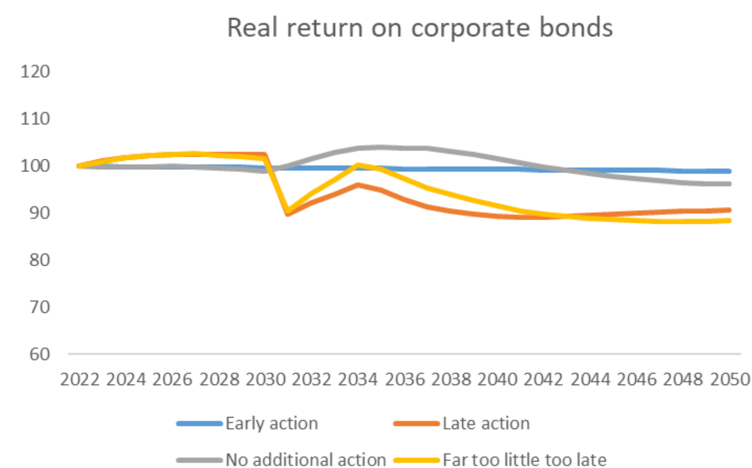
In the meantime, Barnett Waddingham will continue to engage with modelling and data providers, as well as fund managers, regarding best practice and improvements to methodologies, data quality and coverage.

Appendix 2 Asset projections by asset class under each scenario

The graphs in this appendix, consider each asset class's performance under each climate scenario *net* of inflation, over a 30-year time horizon. The early action projections are in line with our best estimate return on each asset class, as assumed for the 2022 valuation. The other scenarios are projected with reference to this using the Bank of England Biennial Exploratory Scenario data and assumed inflation relevant to that scenario. The scale used differs between each graph.

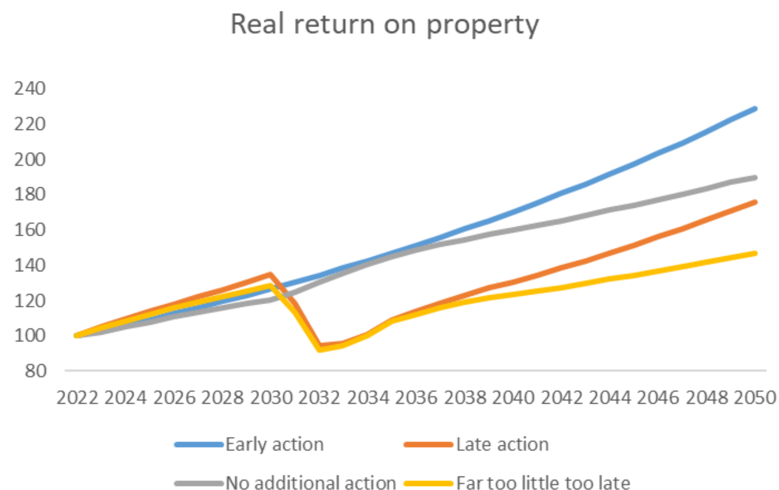
The kinks in the projected return under the "late action" and "far too little too late" scenarios for all asset classes are a result of the expected disruption that would be caused by last minute policy implementation.

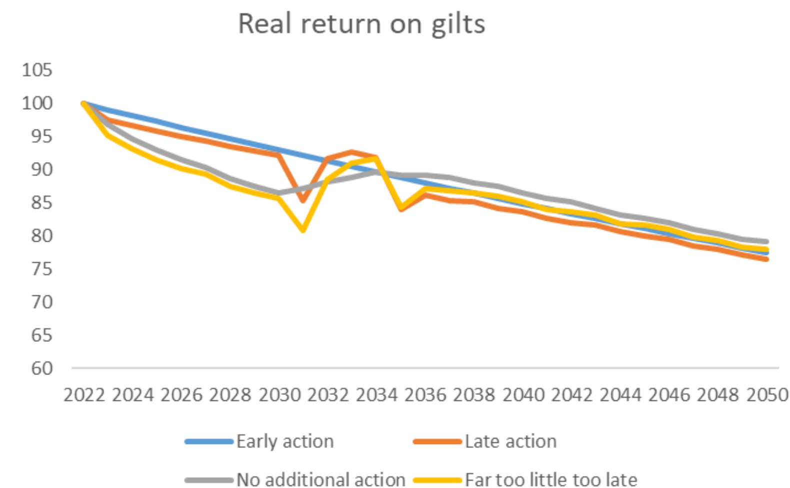




As the world enters uncharted territory with economies looking for ways to combat climate change, company shareholders face substantial risks that established business models may no longer be viable, and innovation may be necessary in order to survive, and thrive. The physical consequences of climate change have the potential to cause widespread damage and disruption to countries across the globe. This is likely to heighten market volatility and may trigger flights to safety from investors, which could result in a significant impact on returns.

Relative to equities, global corporate bond indices have a relatively high weighting to financials, which are expected to be less impacted by transition risk, but also to industrials, which are expected to experience higher impacts. Physical risks will vary, depending on where a company's operations are based and how dependent their revenue is on their at risk assets or supply chains. Not only may these risks harm a company's revenue, and increase the likelihood of them defaulting on the bonds, it may also result in companies having to issue more debt. Recovery rates on bonds may also be impacted, due to the risk of stranded assets.





Property will be a key contributor to the UK's journey to a low carbon economy. It is anticipated that over the coming years, regulation will be created that requires commercial buildings to have at least an EPC rating of 'B' by 2030 as well as increased disclosures. This may result in large upgrade costs to property owners and may result in stranded assets (whereby the cost of upgrading the building is not feasible). As a physical asset, property has high exposure to physical climate risks. For example, a property near the coast may be at more risk of flooding due to rising sea levels, whereas a property in the financial hub of London may be better protected by government spending on sea defences.

The UK was the first major economy to make a net-zero commitment and currently their efforts are deemed to be 'almost sufficient' in meeting these objectives. We therefore believe that the UK will be in a relatively better position with regards to managing climate risk than many other developed and emerging nations. However, the UK is not immune to these risks. On the physical side in particular, large areas of the UK, including major cities, are expected to be below sea level in a scenario where temperatures increase significantly. These risks may impact businesses and result in lower tax revenues for the UK government.

As illustrated by the graphs, there is significant volatility of returns under the "late action" and "far too little too late" scenarios in the medium-term. This is primarily driven by the knee jerk action assumed to be taken in these scenarios. The real return on property is assumed to be affected by climate change to a greater extent than equities, bonds, and gilts for the reasons described above.

If the Fund wished to consider any alterations to their investment strategy, then advice should be taken from their investment advisers. The Fund's objectives as a whole, along with the other risks and opportunities to which the Fund is exposed, should also be taken into account.

Royal County of Berkshire Pension Fund (RCBPF) Responsible Investment Report – Q1 2023

This report has been prepared by LPPI for Royal County of Berkshire Pension Fund (RCBPF) as a professional client.

1. Introduction

This report on Responsible Investment (RI) is a companion to the LPPI RI Dashboard (Appendix 1) and the Quarterly Active Ownership Report (Appendix 2).

It covers stewardship in the period 1st January - 31st March 2023 plus insights on current and emerging issues for client pension funds.

[R] This symbol indicates a term explained in the reference section at the end of this report.

Key takeaways for the period:

- In Q1 2023 LPPI voted on 94% company proposals, supporting 88% of these.
- Investments in Brown sectors (extraction, transportation, storage, supply, and generation of energy from fossil fuels) have increased to 2.08% of the portfolio.
- Investments in Green sectors (renewable energy generation, clean technology, and decarbonising activities) have increased to 6.96% of the portfolio.
- LPPI has joined the IIGCC's[R] Net Zero Engagement Initiative (NZEI). By expanding the universe of companies engaged beyond the Climate Action 100+[R] focus list, the objective is to help investors align more of their portfolio with the goals of the Paris Agreement[R].
- LPPI has been participating in the FCA-convened Vote Reporting Group. The Group aims to bring together a range of stakeholders with knowledge and interest in good practice vote disclosure to develop a more comprehensive and standardised vote disclosure regime.
- The conclusion of the DLUHC[R] consultation on the introduction of climate risk reporting for LGPS will be delayed, after originally being planned to be in place by April this year. This means that the requirements will not come into place for the 2023/24 financial year.

2. RI Dashboard – Portfolio Characteristics

This section of the report shares key takeaways from the RI Dashboard at Appendix 1.

Asset class metrics (*Dashboard pages 1 & 2*) offer insights on the composition of the portfolio and its general characteristics. See the summary for Q1 2023 outlined below.

The Real-World Outcomes section of the dashboard features examples of socially positive investments and this quarter the focus is on Infrastructure. Pages 6-9 share information on a selection of investments within the RCBPF portfolio which are developing solutions based in the UK and abroad.

Listed equities (Dashboard p1)

Sector Breakdown

Categorised by GICS[R] the largest sectoral exposures for the GEF are Information Tech. (20%), Financials (17%), and Consumer Discretionary (15%).

Comparing the GEF with its benchmark (MSCI ACWI)[R] gives insight into how sector exposures for the fund differ from a global market index. The length of each horizontal bar indicates by how much exposures differ in total (+ or –) compared with the benchmark, which is the outcome of active managers making stock selection decisions rather than passively buying an index.

Top 10 Positions

The top 10 companies (10 largest positions) make up 22% of the total LPPI GEF.

In Q1 2023 Microsoft moved up 2 positions and is now the largest holding in the GEF. Visa and Nestle remain in the top three, with Visa remaining stationary and Nestle moving down by 2 positions. Accenture and Starbucks have moved down 1 and 2 positions respectively, whilst Alphabet and LVMH have both moved up by 1 position. Pepsico, Colgate and Diageo were replaced by Intuit, Rockwell Auto and Apple, which makes up the last positions in the top 10.

Portfolio ESG Score

During a period of ongoing dialogue with our provider related to licensing to publish ESG ratings for the GEF, LPPI has temporarily removed this metric from our reporting. We expect the process to conclude by next quarter and for monitoring of the score to continue. We will communicate details privately until matters have been concluded.

Transition Pathway Initiative (TPI)

Monitoring against TPI[R] Management Quality ratings confirms the GEF continues its relatively low exposure to highly carbon intensive activities with minimal changes in ratings since Q4 2022. By value, the coverage of the GEF represented within the globally high emitting companies under TPI assessment has increased from 11.0% to 11.9%, between Q4 and Q1.

The number of GEF companies in scope of TPI scoring has increased by 2 since Q4 2022, changing from 31 to 33. This increase is a result of 3 new assets entering the portfolio from our external managers, which are already part of the TPI universe. One company has dropped out of scope as it is no longer held in the portfolio.

Of the 33 companies in TPI scope:

- 91% (by value) are rated TPI 3 and above – demonstrably integrating climate change into their operational planning (TPI 3) and into their strategic planning (TPI 4). This is down from 92% in Q4 2022, which is a general reflection of mark-to-market changes in the valuations of in scope companies.
- 8 companies are scored below TPI 3 and are under monitoring.

Governance Insights

The following metrics provide insights on governance issues for the GEF using data from ISS DataDesk (Institutional Shareholder Services) our provider of shareholder voting services.

Women on the board: A measure of gender diversity confirming the average proportion of female board members for companies in the GEF (where data is available).

In Q1 2023, an average of 30% of board members were female in the GEF, which is up from 29% in Q4 2022. There was a coverage of 85% data availability (up from 84% in Q4), which was a result of several companies not being in scope of the ISS database.

Board independence: The average proportion of board members identified by ISS as independent. Please note independence expectations vary across markets with LPPI generally favouring greater independence as a route to an appropriate breadth of ideas, skills and experiences being drawn upon.

In Q1 2023, on average 69% of board members were independent in the GEF, which is up from 68% in Q4 2022. There was a coverage of 84% data availability (unchanged from Q4), which was a result of several companies not being in scope of the ISS database.

Say-on-pay: The average level of investor support for the most recent say-on-pay vote at a company meeting. Please note not all markets require say-on-pay votes. A vote of greater than 20% against (support < 80%) is generally considered significant.

In Q1 2023, an average of 88% were in support for say on pay (unchanged from Q4), which indicates a high proportion of investors were supportive of the pay policies of investee companies. There was a coverage of 62% data availability (down from 69% in Q4), which was a result of several companies not being in scope of the ISS database.

Other asset classes (Dashboard p2)

Private Equity

The largest sector exposure continued to be in health care, increasing from 37% in Q4 to 39% in Q1 2023. The geographical exposure continued to have a strong presence in the United States (37%), slightly reducing from 40% in Q4 2022.

Infrastructure

The geographical exposures to UK based infrastructure slightly decreased, moving from 48% exposure in Q4 to 46% in Q1 2023. The largest sectoral exposure remained in Traditional Energy, Renewable Energy, Waste, which makes up 41% of the portfolio.

Real Estate

The largest sectoral exposure continued to be industrial assets in Q1 2022, making up 31% of the portfolio. The portfolio continued to be largely deployed in the UK, increasing from 71% in Q4 to 75% in Q1 2023.

Green & Brown Exposures

Calculation of the Fund's exposure to Green and Brown activities focusses specifically on equity assets (Listed Equity, Private Equity, and Infrastructure) plus corporate bonds within Fixed Income. Figures give an indication, rather than a precise measure, as an assistance to reviewing the overall position.

Green activities are those directly contributing to real world decarbonisation, principally through renewable energy generation, but include other activities supporting lower emissions including district heating, and waste management. Brown activities are those directly involved with extracting, transporting, storing, and otherwise supplying fossil fuels, or using them to generate energy.

The dashboard presents information on the trend in Green and Brown exposures (commencing in Q2 2021). Quarterly changes in Green and Brown exposure reflect multiple factors at play including funds reaching maturity, assets being revalued, and investments being made and sold. The total value of the Royal County of Berkshire Pension Fund (RCBPF) portfolio (as the denominator) also affects Brown and Green % shares quarterly.

Compared with Q4 2022, brown exposure has increased from 1.76% to 2.08%. The biggest contribution to this increase was a reduction in the overall portfolio valuation relative to the performance (valuation) of the Brown assets. In real terms, there has been a reduction in the value of Brown infrastructure assets, due to a company leaving the portfolio from an existing fund, an opportunity taken to capitalise on a high MOIC (Multiple on Invested Capital).

Compared with Q4 2022, green activities have increased from 5.01% to 6.96% of the portfolio. The biggest contributor to the increased exposure is from the Infrastructure asset class. The figures reflect one new company being added to an existing fund which has been identified as Green. Infrastructure's contribution also reflects a positive mark-to-market increase, indicating strong performance by Green positions held in portfolio. This has increased infrastructure's Green exposure from 4.72% in Q4 to 6.56% of the portfolio in Q1 2023. Another contributing factor to inflated Green exposure was a decline in the portfolio's overall valuation relative the performance (valuation) of the Green assets.

Investments in renewable energy generation from wind, solar, hydro, and waste make up 61% of total green exposure, and 94% of green exposure is via Infrastructure assets.

3. Core Stewardship

This section of the report gives an overview of stewardship activities in the last quarter. Client pension funds delegate day to day implementation of the Partnership's Responsible Investment approach to Local Pensions Partnership Investments Ltd (LPPI). Ongoing stewardship activities by LPPI include portfolio and manager monitoring and the exercise of ownership responsibilities via shareholder voting, and engagement.

Shareholder Voting - LPPI Global Equities Fund (GEF) *(Dashboard page 3)*

Shareholder voting is overseen centrally by LPPI rather than by individual asset managers. LPPI receives analysis and recommendations from an external provider of proxy voting and governance research. We follow Sustainability Voting Guidelines focussed on material ESG considerations and liaise with providers and asset managers as needed to reach final voting decisions.

Full details of all shareholder voting by LPPI are publicly available from the LPP website within quarterly shareholder voting reports.

The period 1st January – 31st March 2023 encompassed 49 meetings. LPPI voted at 46 (94%) meetings where GEF shares entitled participation, totalling 460 resolutions voted. LPPI did not vote in three meetings. LPPI was prevented from voting two meetings due to custodian delays during the onboarding of the Baillie Gifford mandate to our proxy voting platform. The operations team will address this issue in the next service review. An expired Power of Attorney precluded voting at a further meeting. The custodian has subsequently rectified this.

Company Proposals

LPPI supported 88% of company proposals in the period.

Voting against management included:

- the election of directors: 33% of votes against (addressing overall board independence, over-boarding, and company specific issues such as diversity).
- compensation: 13% of votes against (addressing inadequate disclosure of underlying performance criteria, use of discretion, and the quantum of proposed rewards).

Case Study – Director Related

LPPI voted against 21 director-related resolutions across nine companies. This was 8% of all director-related votes.

LPPI voted against four directors across four companies due to the lack of diversity on the Board. Results (where disclosed): 9.2%-18.8% Against.

LPPI voted against one director due to overboarding (results: not disclosed)

Case Study – Compensation

LPPI voted against eight compensation resolutions at five companies. This was approximately 13% of compensation-related votes.

At Estun Automation (China: Industrial Machinery), LPPI voted against the stock option incentive plan. This was driven by the potential for conflict of interest by those eligible to receive the stock option plan being involved in its administration. Result: 20.1% Against.

At SimCorp A/S (Denmark: Application Software), LPPI voted against the remuneration report. This was driven by the lack of a rationale behind changes made in flight to LTIP (Long Term Incentive Plan) targets. Result: not disclosed.

At Titan Company Ltd (India: Apparel, Accessories & Luxury Goods), LPPI voted against the Performance Based Stock Unit Scheme. This was driven by the lack of disclosure around performance targets. Result: 7.8% Against.

Shareholder Proposals

LPPI supported 25 out of 38 (66%) shareholder resolutions over the quarter.

At Starbucks Corporation (USA: Restaurants), LPPI supported the resolution requesting the Board "Commission Third Party Assessment on Company's Commitment to Freedom of Association and Collective Bargaining Rights". This follows an uptick in union organising among Starbucks employees in recent years. The vote passed with 52% support.

At Apple Inc. (USA: Technology Hardware, Storage & Peripherals), LPPI supported a shareholder resolution seeking the disclosure of median pay gaps across race and gender, as disclosure could be improved in this area. The vote did not pass, but received support of 33.8%.

At Becton, Dickinson and Company (USA: Health Care Equipment), LPPI supported a shareholder resolution requesting enhanced shareholder say on new severance or termination packages that exceed 2.99x the executive's base salary plus short-term bonus. The vote passed with 61.7% support.

Climate Voting

In line with the updated LPPI Shareholder Voting Guidelines (published December 2022), LPPI rolled out its enhanced climate voting policy, targeting the laggards among the GEF's high impact holdings.

In Q1, meetings of six companies in this population occurred. A vote against management was cast in one instance on climate-related grounds. A second company avoided a vote against management despite its laggard status as no incumbent directors were up for election. Companies avoided votes against management where disclosure has improved or there is evidence of adequate progress.

No CA100+ flagged resolutions took place in Q1 23.

4. Active Ownership

LPPI continually monitors external managers and engages to encourage the evolution of ESG integration practices. The following examples from Private Equity (PE) and GLIL (Infrastructure) indicates positive progress being made.

Case Studies – Manager Engagement

PE

In late 2021 the PE team identified three priority areas for engagement where improvement was required following the underwriting of a manager, these included:

1. No current carbon reporting.
2. Limited resourcing for ESG. Despite positive plans, only 30/40% of an associate's time on ESG was being allocated in a planned manner.
3. Early-stage investment governance framework and processes around ESG portfolio monitoring (including the theoretical framework for ESG ratings for investments / assets).

By engaging with the manager and monitoring their progress, as of February 2023, they have confirmed the following improvements:

1. An annual ESG report is now produced – The report includes firm and fund level proxy carbon reporting and ESG metrics such as turnover rate, manager ESG rating score, and gender diversity. Fund level TCFD[R] reporting is the next focus for 2023.
2. One associate has become fully focused on sustainability, working with other analysts, building and implementing ESG frameworks, and contributing to underwriting.
3. All investments for all funds have now been rated 1-5 on E, S and G risks by the investment leads. Higher ESG risk investments, as part of an ESG watchlist, are discussed in portfolio review committee meetings where they review 2 ratings – the investment rating and the ESG rating. This is also one of the most well attended committees, with IC members and a larger complement of investment staff present than routinely attends IC meetings.

GLIL

Agility Trains East (ATE) has been established to work in partnership with the Department for Transport in developing the Intercity Express Programme (IEP), to replace Britain's ageing fleet of Intercity trains. As an investor, GLIL joined a group of shareholders in a collaborative engagement aimed at developing an ESG survey for ATE to complete. The aim was to develop a survey that is compliant with industry standard ESG initiatives and reporting metrics. ATE first completed the survey in the early months of 2023, covering the 2022 period.

The suggested survey was aligned with metrics monitored under the EU taxonomy, UN Global Compact, PRI[R], TCFD[R], GRESB[R] and NZAMI[R]. Following a successful engagement and joint development, ATE were able to allocate sufficient resource to significantly improve their annual ESG disclosures to GLIL and ultimately identify gaps that can be improved in the coming reporting period.

5. Robeco Summary

Engagement (Public Markets): Robeco *(Dashboard page 4)*

This section of the dashboard outlines the engagement activities undertaken by Robeco in the public markets by topic, sector, method, and region (indicating the number of companies engaged / geographical distribution). Robeco currently engages with 34 companies in the LPPI Global Equities Fund (GEF) and 10 companies in the LPPI Fixed Income Fund (FIF), accounting for 22.4% and 2.9% of the total portfolios respectively.

Robeco-linked voting is a new section within the engagement activity by topic, which represents the number of companies engaged through the new *AGM engagement 2023 theme* (described below).

Engagement (Public Markets): Robeco *(Dashboard page 5)*

Engagement progress by theme, also shown on page 2 in the Robeco Active Ownership report, summarises their engagement activity for our portfolio over the quarter and breaks them down into sub-sectors, where they are rated on success/progress (shown as a %). For this quarter, three themes were removed as they have now been concluded. They include:

- Single Use Plastics (conclusions found in the Q2 2022 Robeco report)
- Digital Innovation in Healthcare (conclusions found in the Q2 2022 Robeco report)
- Social Impact of Artificial Intelligence (conclusions found in the Q4 2022 Robeco report)

Also included in the progress chart is Robeco's new ad hoc engagement metric *AGM engagement 2023*, which is used to formalise Robeco's dialogue with corporates on their voting decisions. Whilst we do not use Robeco for proxy-voting, we value their opinion and expertise, and it will be of interest to track the success of engagement activity indicated by this metric.

The data outlined in our dashboard is specifically related to the companies in LPPI's portfolio and the engagements Robeco undertake on our behalf.

Robeco Active Ownership Report: Content Overview

Lifecycle Management of Mining

Robeco launched an engagement program in 2020 with the objective of encouraging mining companies to mitigate their impacts on the environment. After three years of engagement, Robeco are now closing the program.

From 2020 to 2023, Robeco engaged with 14 mining companies located across four continents. The engagement targeted the largest mining companies and aimed to improve water management, increase the safety management of tailing dams, and improve asset retirement planning, including financial surety, liquidity and accessibility. The dialogues were centred around nine objectives split equally across the three headline objectives.

Of the 14 companies, the engagement with four of them was halted. The Russia-Ukraine conflict prevented Robeco from continuing their engagement with two companies, while one case was transferred to the Controversies Engagement program as a result of a severe environmental breach. The fourth case was transferred to the Sustainable Development Goals theme where the engagement objectives were expanded. Of the 10 remaining companies, Robeco closed 9 cases successfully. Details of the progress seen as a result of the engagement and Robeco's next steps following its conclusion can be found in the attached report.

Proxy Voting – Market Insight

Investors are increasingly looking beyond balance sheets to understand a company's 'double materiality' impact on the wider world. To reinforce this, regulators worldwide are tightening their requirements for disclosure on ESG issues.

2022 saw the SEC adopt a host of new rules which will improve the quality of US companies' disclosure and enhance a board's accountability to shareholders. A selection of the key changes and Robeco's view is below:

1. SEC's adoption of new rules requiring the use of 'universal proxy cards' (UPCs) for any meetings involving contested elections.

The new rules strengthen the means by which shareholders can hold companies accountable for poor governance by placing investors voting in person and by proxy on an equal footing.

2. SEC proposed changes to the process by which shareholder proposals are included in a company's proxy statement. Under rule 14a-8, a company may omit a shareholder proposal from its proxy statement if it falls within one of 13 substantive bases for exclusion.

Robeco view the shareholder proposal process as being one of the most important means of engagement between companies and shareholders, and believe that an effective process is crucial in ensuring that a variety of ESG issues reach ballots.

Labour Practices in a Post Covid-19 World

The pandemic put frontline workers and their labour conditions at the centre of public attention. In many cases, the labour issues that surfaced were an amplification of existing, yet often hidden industry characteristics, from seasonal demand spikes at hotels and low wages at food retailers, to unprotected worker contracts within the online food delivery sector. While the world seems to have moved on, the aftermath of the global lockdown and the labour issues they highlighted continue to mark low-wage earners' lives, especially as costs of living are rising.

In 2021, Robeco launched their engagement on 'Labour practices in a post Covid-19 world', focusing on those sectors where working conditions were put into the spotlight throughout the pandemic, whether due to extreme pressures on them, or a complete halting of operations. As such, they began to engage with companies from across the hotel, food retail and online food delivery sectors to encourage them to address the systemic labour risks highlighted throughout the times of crisis. So far, out of the 7 companies Robeco engaged with, 3 have shown positive progress on 'Wages and benefits'.

Walmart Case Study:

US food retail company Walmart Inc. has for a long time been under severe scrutiny for its low starting wages. Robeco focused its dialogue with the company on conducting a living wage assessment and adapting minimum wages appropriately, which has resulted in positive progress. Over the last year, Walmart has engaged in simple payment restructuring following employee feedback, such as integrating bonus pay-outs in hourly pay instead of quarterly pay-outs, as well as raised minimum wages by 17%, from USD 12 to USD 14 per hour in March 2023. While not yet meeting living wages and continuing to fall behind peers, these amendments do showcase first considerations towards helping to meet employees' rising cost of living.

6. Collaborations and Partnerships

LPPI participates in a range of investor groups and partnerships which provide opportunities for shared learning and a platform for collective action. The following are headlines for Q1 2023.

Institutional Investor Group on Climate Change's (IIGCC) Net Zero Engagement Initiative

Following application, LPPI has joined the IIGCC's[R] Net Zero Engagement Initiative (NZEI). By expanding the universe of companies engaged beyond the Climate Action 100+[R] focus list, including those across the demand side, the objective is to help investors align more of their portfolio with the goals of the Paris Agreement[R] as set out by investor net zero commitments, such as the Net Zero Asset Managers initiative. The central ask of investor engagement via NZEI is a corporate net zero transition plan. 107 focus companies have been sent letters from a total of 93 investors outlining their expectations for a net zero transition plan. LPPI is due to find out during Q2 whether or not we will lead engagements with companies in this group, as the next steps depend on company responses to the initial letter.

Global Plastics Treaty

In early 2022, LPPI signed up to The Business Call for a UN Treaty on Plastic Pollution, in alignment with the Internal Equity engagement theme on packaging and waste. The initial coalition can be considered a success, following agreement at the March 2022 UN Environmental Assembly to develop a binding treaty to end plastic pollution by 2024. The group has evolved into a new body, the Business Coalition for A Global Plastics Treaty (still convened by the Ellen MacArthur Foundation and WWF[R]), which seeks to ensure the binding treaty developed is an ambitious and effective international policy framework. LPPI has re-affirmed our commitment to these aims by signing up as a supporter to the Business Coalition for A Global Plastics Treaty.

Workforce Disclosure Initiative (WDI)

The WDI released their 2022 dataset in Q1, which contains in-depth insights into workforce practices. As an investor signatory to the WDI, LPPI supports efforts to enhance corporate disclosure on workforce practices. During the 2022 engagement cycle, LPPI contacted six

companies to encourage participation in the survey. Following engagement, three out of the six companies targeted responded to the survey, providing us with enhanced insights on their workforce management.

FCA – Vote Reporting Group

LPPI has been participating in the FCA-convened Vote Reporting Group. The Group aims to bring together a range of stakeholders, such as pension funds, insurers, investment consultants, asset managers, proxy advisors, issuers and civil society groups, with knowledge and interest in good practice vote disclosure to develop a more comprehensive and standardised vote disclosure regime. The Group met roughly monthly in the six months from October 2022. The FCA plans to launch a public consultation on the Group's output in H2 2023.

Local Government Chronicle Investment Seminar

LPPI's Head of RI was a panellist at the LGC Investment Seminar at Carden Park in Cheshire (30/31 March 2023).

Panel members shared their insights on ESG challenges in a session called "ESG - the good, the bad, and the ugly" which incorporated three different perspectives, those of LPPI as an LGPS pool, Quinbrook as an infrastructure manager, and Accounting for Sustainability (A4S) as an advocate for a global sustainable financial system.

Noting considerable progress made and that ESG has become mainstream, challenges include a lack of consistent definitions and universally applicable frameworks to give assurance about rigour and comparability and the need for broader disclosure by companies. The panel noted that regulators are increasingly acting to address these issues in efforts to tackle greenwashing and expand information available to investors.

The politicisation of ESG in the USA where it is polarising positions and producing rhetoric which misrepresents what ESG is (a lens for assessing sustainability) was noted as ugly. Anti ESG measures in some states suggest traction is being achieved. However, an alternative perspective is that unsustainable business practices (including reliance on fossil fuels) are increasingly being brought into question, triggering reaction and backlash from sectors, industries, communities, and economies directly affected. The scale of the shift implied by the goal of a net zero emissions world economy by 2050 will inevitably create risks and losses as well as opportunities and wins.

7. Other News and Insights

Net Zero Update

This year LPPI are working towards bringing real estate and corporate fixed income into scope of net zero target setting. In preparation, work has begun on establishing the baseline for emissions data and in particular working with our provider, KFIM (Knight Frank Investment Management), on a detailed net zero strategy for the individual assets within the direct portion

of the real estate portfolio. Monitoring and implementation of LPPI's existing targets is also underway. LPPI have received the first round of enhanced engagement reporting from external managers within the GEF and will be discussing responses over the next month to understand the methods managers are using to track and monitor their climate related engagements. Work is also underway by the Risk team who are undertakingon a data scoping exercise across the portfolio in preparation for bringing all asset classes into scope of TCFD[R] reporting by June 2024.

DLUHC

The conclusion of the DLUHC[R] consultation on the introduction of climate risk reporting for LGPS will be delayed, after originally being planned to be in place by April this year. This means that the requirements will not come into place for the 2023/24 financial year. Whilst awaiting the delayed regulations expected to be in place by April 2024, LPPI will align TCFD[R] preparations with the FCA requirements on asset managers combined with the draft DLUHC requirements set out in the consultation in order to best prepare for the eventual requirements.

UK Green Finance Update

In March 2023, the UK released an update to its 2019 Green Finance Strategy, found here. The report sets out how continued UK leadership on green finance will cement the UK's place at the forefront of the growing global market, and how it will mobilise the investment needed to meet the UK's climate and nature objectives. This is important because it indicates the shape of the policy context which will have an influence on investment opportunities going forward.

The strategy aims to reinforce and expand the UK's position as a world leader on green finance and investment, hoping to deliver on its five key objectives:

1. UK financial services growth and competitiveness
2. Investment in the green economy
3. Financial stability
4. Incorporation of nature and adaptation
5. Alignment of global financial flows with climate and nature objectives

The structure of the report focuses on three key pillars, with each outlining the UK's detailed approach to help achieve the objectives set out above.

Three key pillars:

- Foundations – UK approach to green finance.
- Align – Enabling the market to align with UK climate and environmental goals.
- Invest – Mobilising and creating opportunities for green investment.

For Reference

GICS - Global Industry Classification System
The most widely used approach to categorising activities into industry sectors. The main standard in use for public markets with growing use for other asset classes. For more information on GICS and the activities that fall into each sector, please see:
https://www.spglobal.com/marketintelligence/en/documents/112727-gics-mapbook_2018_v3_letter_digitalspreads.pdf

Climate Action 100+
Climate Action 100+ is an investor-led initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change.

Paris Agreement
The Agreement is a legally binding international treaty to tackle climate change and its negative impacts. The Agreement includes commitments from all countries to reduce their emissions and work together to adapt to the impacts of climate change. It entered into force on 4 November 2016.

The Agreement sets long-term goals to guide all nations to:

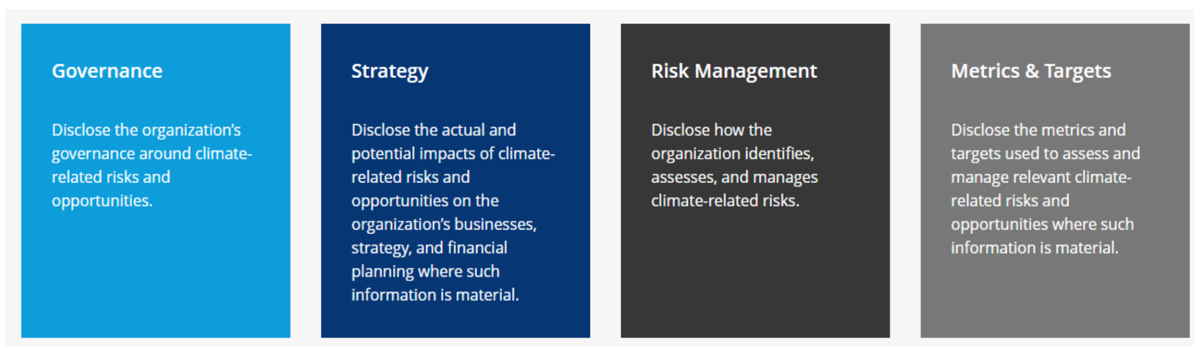
- substantially reduce global greenhouse gas emissions to limit the global temperature increase in this century to 2 degrees Celsius while pursuing efforts to limit the increase even further to 1.5 degrees,
- review countries' commitments every five years,
- provide financing to developing countries to mitigate climate change, strengthen resilience and enhance abilities to adapt to climate impacts.

https://www.un.org/en/climatechange/paris-agreement

MSCI ACWI - MSCI All Country World Index
A stock index designed to track broad global equity-market performance. The LPPI Global Equity Fund's benchmark.

MSCI - Morgan Stanley Capital International
A global index provider.

TCFD - Taskforce on Climate Related Financial Disclosure
The Financial Stability Board created the Task Force on Climate-related Financial Disclosure (TCFD) to improve and increase reporting of climate-related financial information by companies and investors.
Recommendations include annual disclosure under 4 pillars:



TPI - Transition Pathway Initiative https://www.transitionpathwayinitiative.org/
The TPI assesses the highest emitting companies globally on their preparedness for a transition to a low carbon economy. 368 companies are rated TPI 0-4* for Management Quality based on 19 separate datapoints. TPI Management Quality scores provide an objective external measure of corporate transition readiness.

NZAMI – Net Zero Asset Managers Initiative https://www.netzeroassetmanagers.org/
The Net Zero Asset Managers Initiative launched in December 2020 and aims to galvanise the asset management industry to commit to a goal of net zero emissions.

IIGCC
Institutional Investor Group on Climate Change. LPPI is a member.

PRI - Principles for Responsible Investment https://www.unpri.org/
A United Nations-supported international network of financial institutions working together to implement its six aspirational principles, often referenced as "the Principles"

GRESB - https://www.gresb.com/nl-en/
GRESB is an independent organization providing validated ESG performance data and peer benchmarks for investors and managers to improve business intelligence, industry engagement and decision-making.

WWF - World Wide Fund for Nature https://www.wwf.org.uk/

DLUHC - Department for Levelling Up, Housing & Communities

Responsible Investment Dashboard Q1 2023

1. Portfolio Insights

THE ROYAL COUNTY OF BERKSHIRE PENSION FUND

LPP Local Pensions Partnership Investments

Listed Equities (LPPI Global Equities Fund)

Sector Breakdown (%)

Sector	%
Information Tech.	20.3
Financials	17.0
Consumer Discretionary	14.7
Consumer Staples	14.5
Industrials	13.7
Health Care	7.6
Communication Services	6.2
Cash	3.1
Energy	0.8
Real Estate	0.8
Utilities	0.8
Materials	0.6
Others	0.0

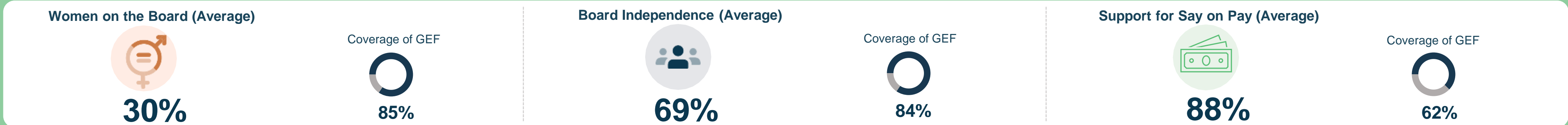
LPPI Global Equities Fund Sector Weights vs MSCI ACWI ND

-10% -8% -6% -4% -2% 0% 2% 4% 6% 8% 10%

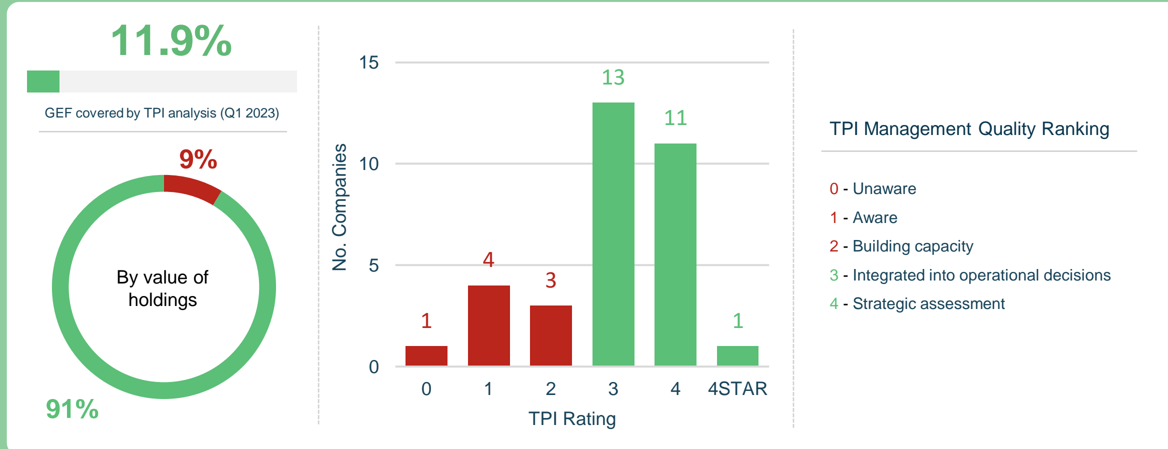
Top 10 Positions

	Portfolio (%)
1. Microsoft Corp	3.1
2. Visa Inc	3.0
3. Nestle	3.0
4. Alphabet Inc	2.3
5. Accenture Plc	2.2
6. LVMH Moet Hennessy	2.0
7. Intuit Inc	1.7
8. Starbucks Corp	1.7
9. Rockwell Auto Inc	1.6
10. Apple Inc	1.6

Governance Insights (ISS DataDesk)



Transition Pathway Initiative – Management Quality Headlines



TPI Management Quality Ranking

- 0 - Unaware
- 1 - Aware
- 2 - Building capacity
- 3 - Integrated into operational decisions
- 4 - Strategic assessment

Responsible Investment Dashboard Q1 2023

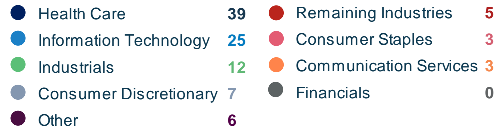
1. Portfolio Insights

BERKSHIRE PENSION FUND | LPP Local Pensions Partnership Investments

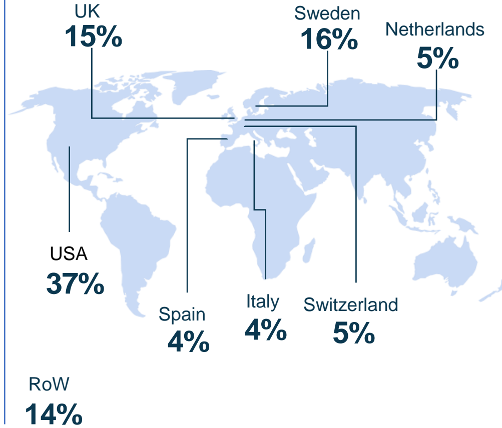
Other asset classes

Private Equity

Industry Breakdown (%)

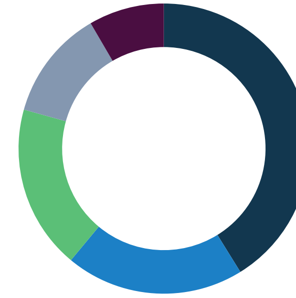


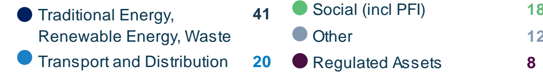
Region Breakdown (%)



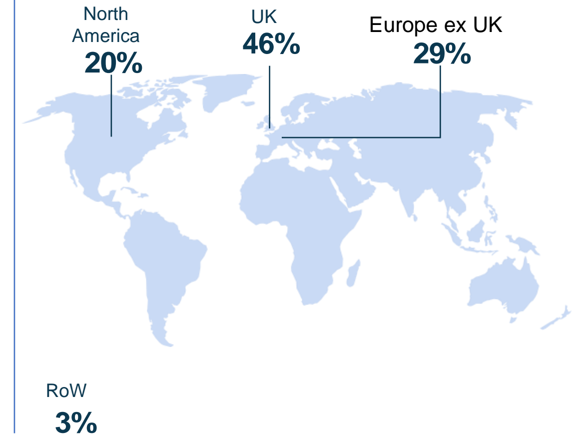
Infrastructure (LPPI Global Infrastructure Fund)

Industry Breakdown (%)





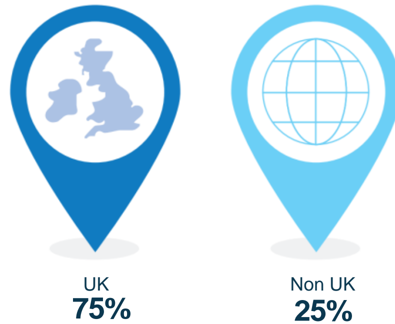
Region Breakdown (%)



Real Estate (LPPI Real Estate Fund)

Sector Breakdown (%)

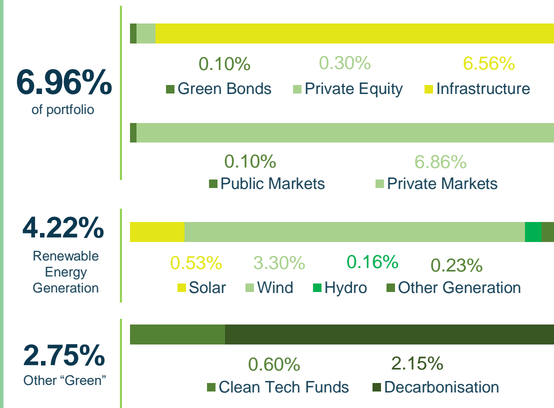
Geographical Exposure (NAV %)



Green & Brown Exposure

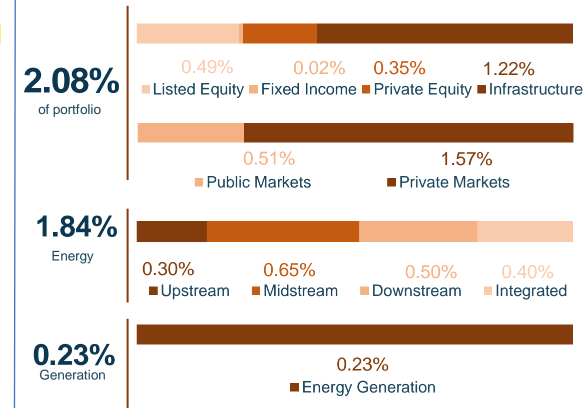
Green

Investments in businesses directly contributing to the global transition to a lower carbon economy, expressed as a % of the total value of the pension fund.

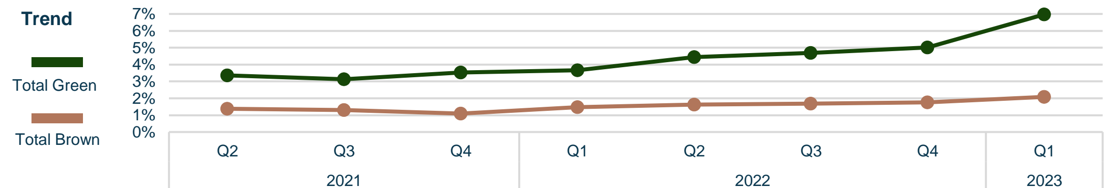


Brown

Investments in traditional energy (based on fossil fuels) expressed as a % of the total value of the Pension Fund.



Trend



The above Green and Brown metrics apply to parts of the portfolio which have exposure to a specific set of activities as per our definition of Green and Brown, and which are quantifiable at the time of publication (please see appendix). LPPI's Responsible Investment team endeavours to provide clients with the most expansive picture of exposure possible.

Responsible Investment Dashboard Q1 2023

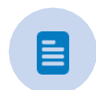
2. Stewardship Headlines

Shareholder Voting

Shareholder Voting Statistics (LPPI Global Equities Fund)

Headlines

46 Meetings Voted



460 Proposals Voted

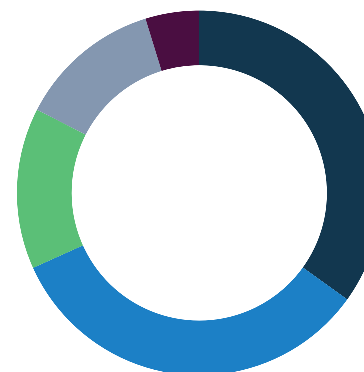
Supported **88%**

422 Company Proposals

Supported **66%**

38 Shareholders Proposals

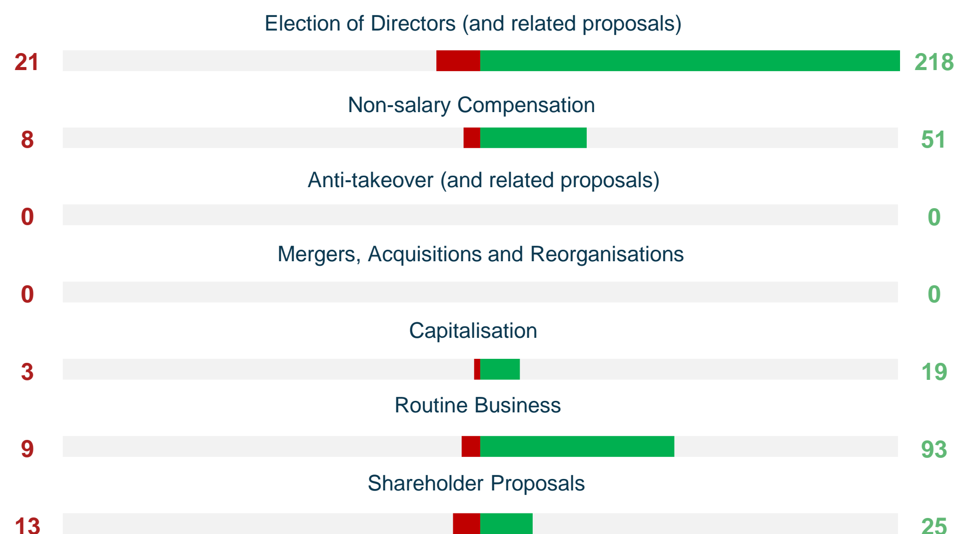
48% Meetings with a vote against Management



Votes Against Management (By theme)

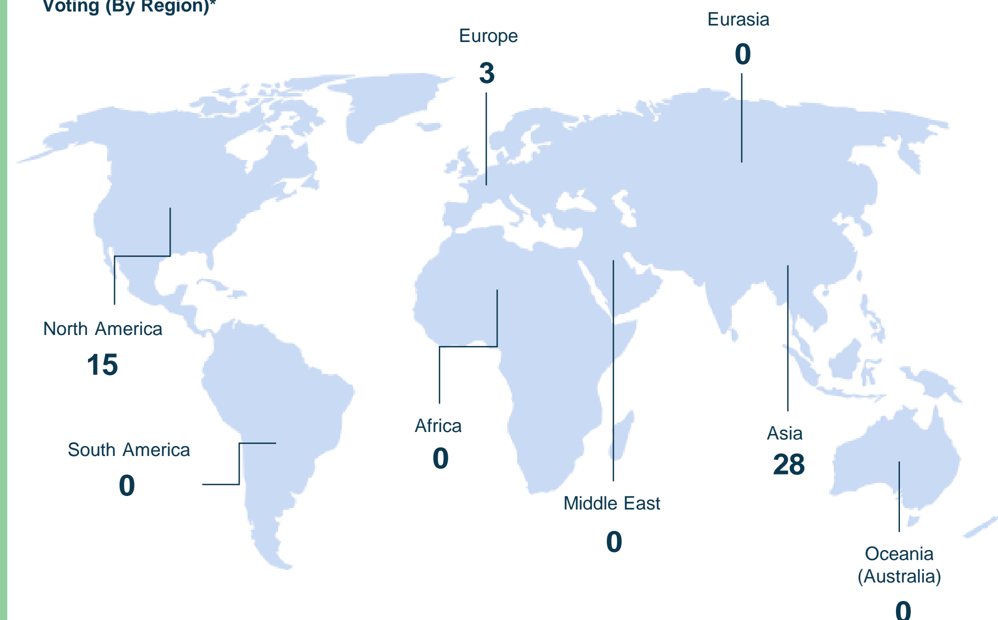
Theme	Votes
Shareholder Resolutions	22
Election of Directors (and related)	21
Routine Business	9
Non-salary Compensation	8
Capitalisation	3
Anti-takeover (and related proposals)	0
Mergers, Acquisitions and Reorganisations	0

Voting (By Theme)



Theme	Against	For
Election of Directors (and related proposals)	21	218
Non-salary Compensation	8	51
Anti-takeover (and related proposals)	0	0
Mergers, Acquisitions and Reorganisations	0	0
Capitalisation	3	19
Routine Business	9	93
Shareholder Proposals	13	25

Voting (By Region)*



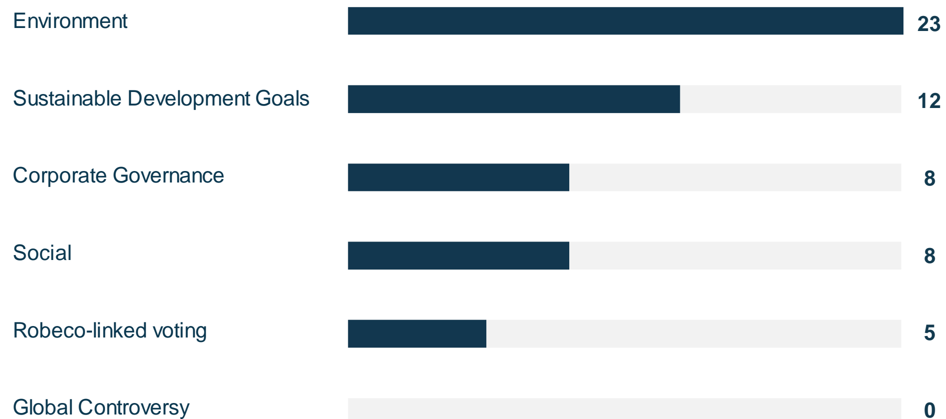
*Total votable meetings

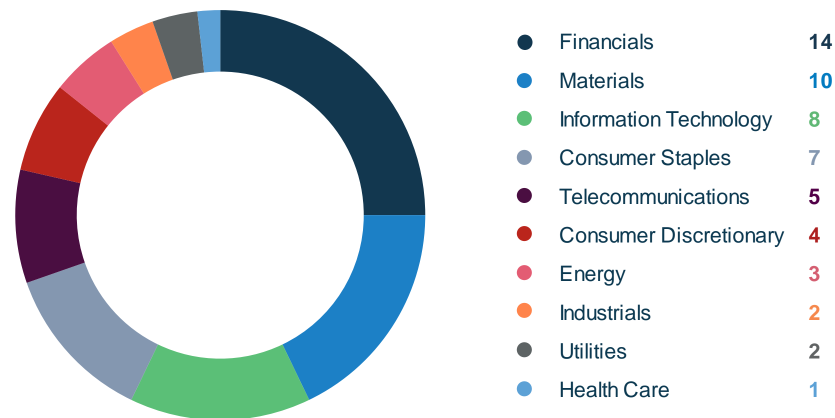
Responsible Investment Dashboard Q1 2023

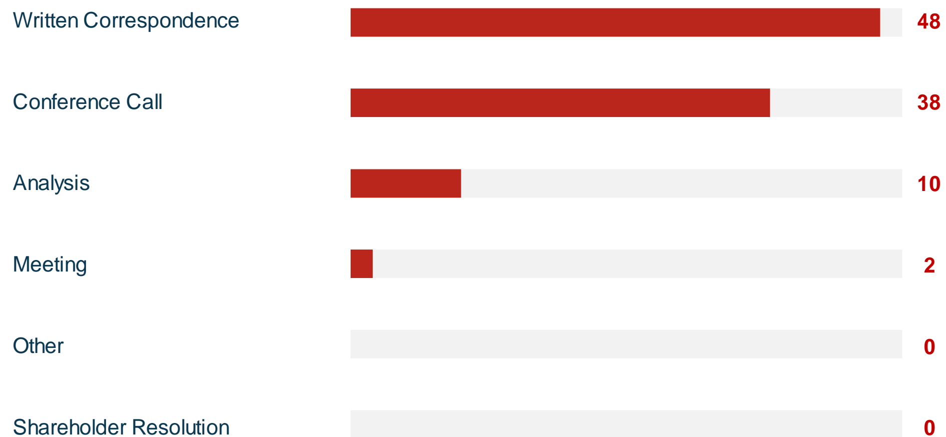
2. Stewardship Headlines

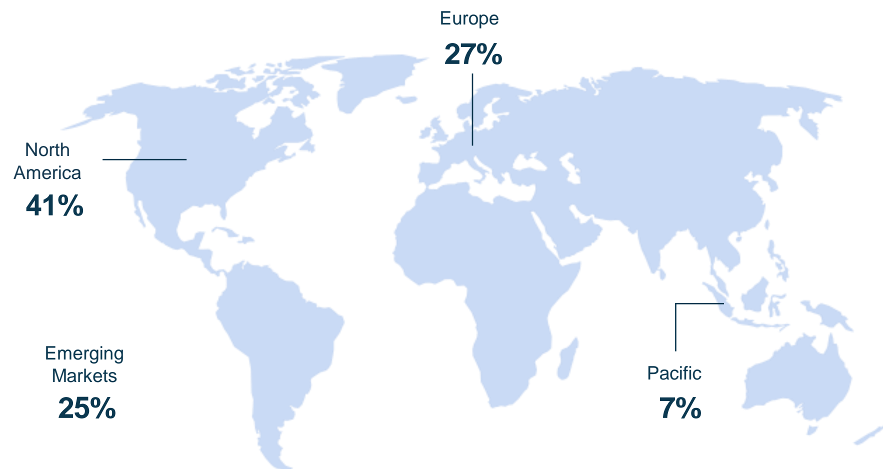
Engagement (Public Markets): Robeco

The following data is specifically related to the companies in LPPI's portfolio and the engagements Robeco undertake on our behalf.









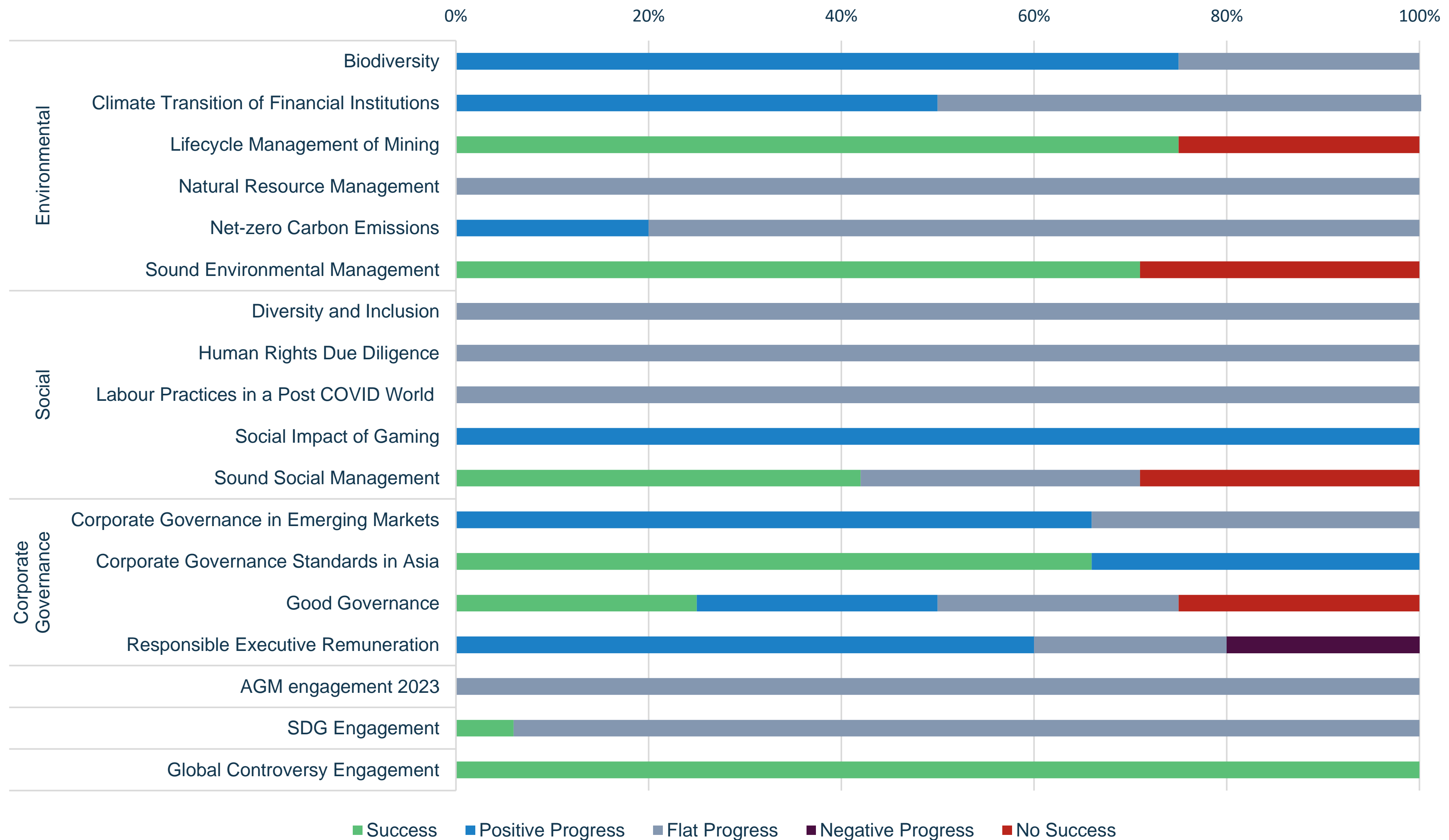
Source: Robeco Active Ownership Report Q1 2023

Responsible Investment Dashboard Q1 2023

2. Stewardship Headlines

Engagement (Public Markets): Robeco

The following data is specifically related to the companies in LPPI's portfolio and the engagements Robeco undertake on our behalf.

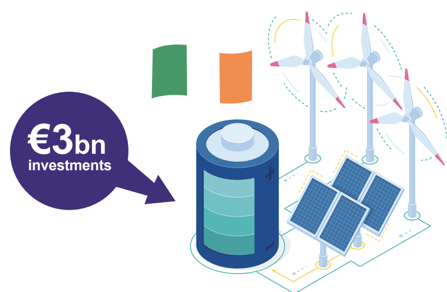


BERKSHIRE PENSION FUND
LPP Local Pensions Partnership Investments

energia group

Energia is an integrated energy company with thermal generation, renewables and supply operating across Northern Ireland and the Republic of Ireland.

A leading player in renewable production, Energia has invested in many renewable assets, primarily in wind. It is responsible for approximately 25% of existing wind power capacity installed on the island.



Positive energy investment program

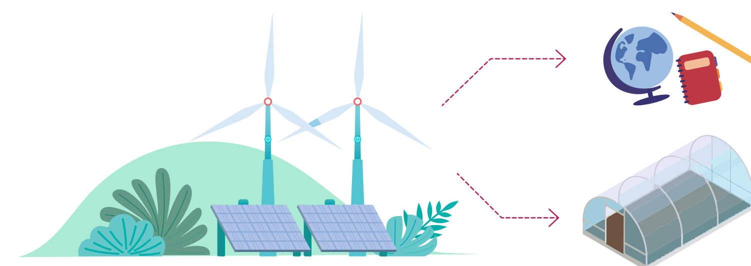
Energia launched its **positive energy investment program** in 2019 and committed to **investing €3 billion** in Irish renewable energy generation/related systems over the next five years.

- In 2021 the company set a medium-term target to reduce the carbon intensity of its electricity generation by **50% by 2030.**
- As of the beginning of 2022, the company had **14 operational wind farms (309MW) and a pipeline of almost 3,000MW** of new renewable energy projects across offshore wind, onshore wind and solar.

New ESG governance structure

In 2021/22, Energia established a new ESG governance structure, creating an ESG steering group to help implement an **ESG strategy**, ensure accountability and improve its overall monitoring.

- The **ESG steering group is chaired by the chief financial officer**, who is responsible for its continued development and implementation.
- The group is also responsible for ensuring **all ESG related matters are represented at management, board and executive board levels.**



Supporting local communities

Energia supports local communities in the process of constructing and operating wind farms. They have contributed over **€3 million to local communities in the past six years and continue to provide around €600,000 a year.**

Meenadreen Wind Farm Fund, Co. Donegal

- In addition to allocating community project grants, the annual €90,000 fund operates a local bursary scheme, covering higher education tuition fees for a small number of local students.

Tyrone Three Combined Fund, Co. Tyrone

- Grants are available for local community projects within a five-mile radius of wind farms.
- Cooley Primary School and Nursery Unit used their grant to install a polytunnel in a new outdoor learning area.

Source: energiagroup.com

ExteNet is a provider of distributed network systems (DNS) and other wireless communication infrastructure in the US and Canada. It designs, builds, owns and operates distributed networks for use by mobile service providers and indoor venue owners (for example, sports and entertainment venues, commercial real estate and healthcare). Its networks enhance coverage and enable wireless service in both outdoor and indoor environments.

ExteNet has proactively looked to better understand its environmental impact and implement the right practices; it has made strides in engaging with its employees and continues to improve its workplace environment; and has engaged with NAVEX Global to implement a standardised governance, risk, and compliance framework.

Greenhouse gas emissions audit

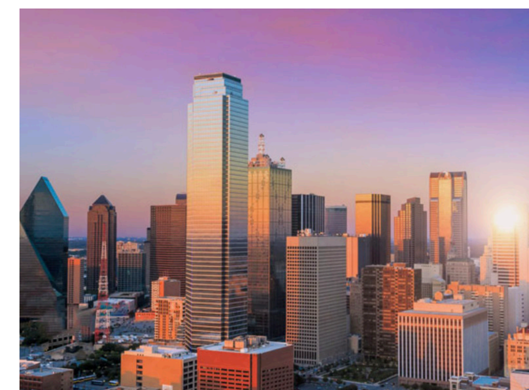
ExteNet has engaged with Natural Capital Partners to assess and audit the company's current **greenhouse gas emissions profile. Audits and assessments are expected to begin in H1 2023.**

Diversity, equity, and inclusion committee

The diversity, equity and inclusion committee, formed in 2020, aims to help increase the proportion of underrepresented groups in management roles. As of Q4 2021 they have a **50% gender diversity in executive leadership positions.**

Diversity, equity and inclusion training program

In 2022 the diversity, equity and inclusion training program saw **100% participation from full time employees and contractors.**



Source: extenet.com

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LPP Local Pensions Partnership Investments

Cubico, is a leading Independent Power Producer (IPP). The portfolio has been operational for more than three years and comprises over 250MW of onshore wind and solar projects at 18 sites across the UK.

Cubico sustainable investments have funded and backed various local community projects covering basic needs, education, infrastructure, and the environment in 2022.

A key supporter to the Kelmarsh wind farm community benefit charity

Cubico is a key supporter of the Kelmarsh wind farm community benefit charity, which supports community organisations near to the Kelmarsh Wind Farm.

- Support has been given to the local school in Kelmarsh, which **helped to provide materials for their design and technology curriculum** during a time of increased financial pressure.
- Additional support also covered the Naseby Battlefield Project, which aims to **educate the public on local history during the 17th century by helping to improve their digital communication and education facilities.**

Purchasing IT equipment

Similar initiatives were hosted in Middlewick where Cubico **purchased IT equipment for a scout group** to enable full access to digital activities for beavers, cubs, and scouts.

Tackling UK food poverty

Cubico and GLIL Infrastructure donated more than **£100,000 to help tackle UK food poverty,** donating to 11 food banks local to its wind farm and solar projects.

Funding costs for community sites

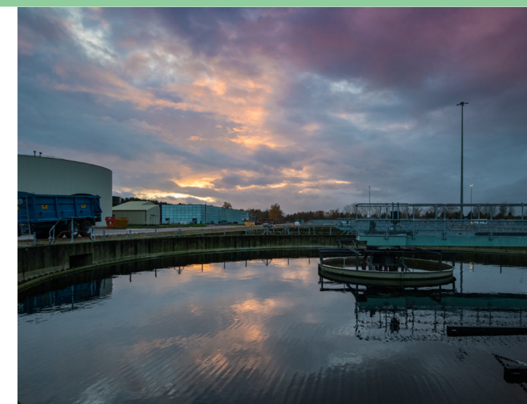
Further funding **covered maintenance and repair costs for sports centres** and various local community sites in the UK.

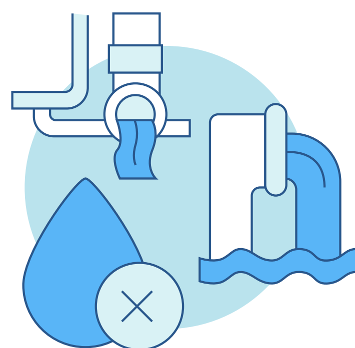
Source: cubicoinvest.com

Anglian Water Group

Anglian Water Services Limited (Anglian), provides water and wastewater services to more than six million customers in the east of England. Anglian is the largest water and sewerage company in England and Wales by geographic area, and the fourth largest water company as measured by Regulated Capital Value (RCV).

For the 2021/22 reporting year, Anglian implemented an efficient emissions optimisation programme. The company reports both location and market-based methodologies. Location-based reporting uses UK average emissions for energy, whereas market-base uses the emissions from specific suppliers.

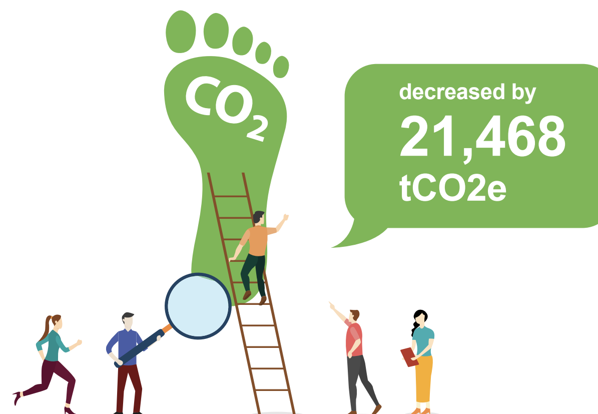




7.9GWh of savings

Net zero status by 2030

Anglian has incorporated an optimisation programme to help meet their **net zero status by 2030**. The programme looks to optimise all areas of the business, including key areas such as reducing leakage in the water system and improving their wastewater treatment facilities. **As of 2021/22, the programme delivered 7.9 GWh (full year effect) of savings, equating to 1,826 tCO2e.**



Gross annual emissions decreased

Anglian's gross annual emissions have **decreased by 21,468 tCO2e between 2021 and 2022.**

In the same period the national grid **decarbonised by 9%**, with renewables an increasing amount of the UK energy mix, and Anglian purchased **22.5GW of green electricity.**

Source: awg.com

BERKSHIRE PENSION FUND
LPP Local Pensions Partnership Investments

Portfolio Insights (Pages 1 - 2)

Sector Breakdown (%)

- Identifies the Global Equities Fund's ("GEF") sector breakdown and their proportions.

GEF Sector Weights

- Comparison of sector weights against their benchmark.
- The larger the bar the bigger the difference between GEF and benchmark weightings.
- Where a positive number is shown, this indicates the GEF is overweight to a sector.
- Where a negative number is shown, this indicates the GEF is underweight to a sector.

Top 10 Positions

- The top 10 GEF companies as a % of the asset class portfolio.

Governance Insights

- **Women on the board:** A measure of gender diversity based on the average proportion of female board members for companies in the GEF.
- **Board independence:** The average proportion of board members identified by ISS as independent. Please note independence expectations vary across markets with LPPI generally favouring greater independence.
- **Say-on-pay:** The average investor support for the most recent say-on-pay vote at a company meeting. Please note not all markets require say-on-pay votes. A vote of greater than 20% against (support < 80%) is generally considered significant.

Portfolio ESG Score

- During a period of ongoing dialogue with our provider related to licensing to publish ESG ratings for the GEF, LPPI has temporarily removed it from our reports. We expect the process to conclude by next quarter and for monitoring of the score to continue.
- We will communicate details privately until matters have been concluded.

BERKSHIRE PENSION FUND
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Portfolio Insights (Pages 1 - 2)

Transition Pathway Initiative (TPI) Headlines

- TPI assess how well the largest global companies in high carbon emitting sectors are adapting their business models for a low carbon economy.
- The % of GEF covered by TPI shows the portfolio exposure to high emitting companies.
- The number/proportion of companies with top scores (TPI 3 and 4) is a measure of the quality of transition management by the high emitting companies held within the GEF.
- Detailed TPI methodology can be found through the following link: https://www.transitionpathwayinitiative.org/methodology

Private Market Asset Classes

- These metrics indicate the industry sector and regional breakdown as a % of the asset class for Private Equity, Infrastructure and Real Estate investments.

Green & Brown

- These metrics indicate the Pension Fund's total portfolio exposure (%) to green and brown assets. Current coverage extends to: Listed Equities, Fixed Income, Green Bonds, Private Equity, and Infrastructure.
- These are further broken down into their sectors/activities related to green and brown.
- Please be aware that due to rounding within the different breakdowns the totals may not sum correctly.

Green

These are investments in renewable energy and sectors/activities assisting in renewable energy generation, low carbon tech and wider decarbonising activities.

Brown

Investments in energy and power generation based on fossil fuel activities, including: extracting (upstream), transporting (midstream), refining (midstream), supplying (downstream), or some energy companies that legitimately span all aspects (integrated). Fossil fuels used to generate energy is part of electricity generation.

Stewardship Headlines (Pages 3 - 5)

Shareholding Voting

- Key shareholder voting metrics for LPPI's GEF.
- The Headline section provides insight into the scope of voting activity, including how votes against management is concentrated.
- LPPI is responsible for voting on each decision taken, working in partnership with Institutional Shareholder Services to best inform views prior to taking action.
- The map of votes per region is included because different jurisdictions have different voting seasons. This provides context to the reporting of voting statistics quarter to quarter as votes take place in batches depending on the companies domicile at different points throughout the year.

Engagement (Public Markets)

- Engagement is an active, long-term dialogue between investors and companies on environmental, social and governance factors, which can be executed through a variety of channels.
- LPPI has engaged an external provider (Robeco Active Ownership Team) to supplement dialogue underway by LPPI and external delegate managers.
- This section outlines the engagement activities undertaken by Robeco in the public markets by topic, sector, method, and region (indicating the number of companies engaged / geographical distribution).
- "Activity by method" summarises engagements by category / method and can include multiple inputs from the same company.
- The updated Robeco Active Ownership report summarises our engagement activities for the quarter and breaks them down into sub-sectors, where they are rated on success/progress (shown as a %).
- Page 9 of the Robeco stewardship policy outlines further details of their process: https://www.robeco.com/docm/docu-robeco-stewardship-policy.pdf

Real World Outcomes (Pages 6 - 8)

- This section provides real world ESG case studies, relevant to the Pension Fund's holdings, which rotate between asset classes each quarter.
- The focus of the real world outcomes rotates between asset classes for each quarter in the following pattern:
    - Q1 – Infrastructure
    - Q3 – Real Estate
    - Q3 – Private Equity
    - Q4 – GEF
- The case studies are an in-depth review of positive ESG practices for current investments within the portfolio over the past year.

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