

# **CLIMATE CHANGE GOVERNANCE AND REPORTING IN LINE WITH THE RECOMMENDATIONS OF THE TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD)**

**Reporting period: 12 months to 5 April 2024**

**May 2024**

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## Chair’s Introduction

Welcome to our second climate change report, which has been prepared in line with the recommendations of the Task Force on Climate-Related Financial Disclosures (“TCFD”) and the statutory requirements prescribed by the Department of Work and Pensions<sup>1</sup>.

The Trustee of the ABF Pension Scheme (the “Scheme”) recognises climate change as a risk that could impact the financial security of Defined Benefit (“DB”) members’ benefits and the value of Defined Contribution (“DC”) members’ funds if not properly measured and managed. It also presents a potential opportunity, by investing in companies or assets that are expected to perform well in an economy that is positioned to address climate change.

The Trustee’s assessment of climate-related risks and opportunities has been carried out based on information that is available at the time of preparing this report, both in terms of data from the companies and assets in which the Scheme invests and in consideration of the different global warming scenarios that we have analysed.

The ultimate responsibility of the Trustee is the investment of the Scheme’s assets to pay the DB members their pension and other benefits as they fall due and make available a range of funds for members of the DC section to choose from. Climate change is one risk amongst many that the Trustee measures, monitors and manages. To this extent, climate change needs to be considered alongside these other risks in a balanced and proportionate way and, for the DB Section, with consideration of the strong funding position of the Scheme. The Trustee may therefore continue to invest in companies that are exposed to climate risk, where there is a sufficiently attractive investment case and the relevant asset manager believes there is an opportunity to engage and influence changes in the behaviour and actions of a company.

This report is split into sections to help members understand:

### **Governance**

The Scheme’s governance around climate-related risks and opportunities.

### **Strategy**

The actual and potential impacts of climate-related risks and opportunities on the Scheme’s investment and funding strategies, and financial planning.

### **Risk Management**

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

### **Metrics and Targets**

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

Figure 1: TCFD Framework



<sup>1</sup> UK Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 and the UK Occupational Pension Schemes (Climate Change Governance and Reporting) (Miscellaneous Provisions and Amendments) Regulations 2022 using the statutory guidance issued by the Department for Work and Pensions (“DWP”)

The appendix covers the more technical aspects of the climate scenario modelling and climate metrics and sets out the methodology and assumptions used to produce the information contained in this report.

The core policies and processes of the Trustee have not changed materially over the reporting period.

At the overall level, emissions for the DB Section have marginally increased over the year, this being partly due to increases in the carbon emissions of a small number of managers but is mainly as a result of the liability hedging portfolio increasing exposure to UK Government Bonds over the year – which helps to control other specific risks within this portfolio. As such, the Trustee is not overly concerned by this increase. Pleasingly, the DB Equity portfolio has achieved the Trustee’s greenhouse gas emissions reduction target, 5 years ahead of the 2030 target. This has been driven largely by a substantial reduction in the carbon footprint of the Liontrust portfolio. The Trustee is looking for this reduction to persist over the longer-term before re-considering the target, especially as a fall in carbon footprint metric could be a result of an increase in enterprise value of the underlying companies invested in, as opposed to reductions in emissions.

Within the DC Section of the Scheme, the carbon footprint has fallen across all target date fund vintages. The Trustee’s DC greenhouse gas emissions reduction target has not yet been achieved, although as at 30 September 2023 it is very close to being achieved. The Trustee will continue monitoring progress against this target and will look for it to be persistently achieved before re-considering it.

A key change to the Trustee’s reporting is the inclusion of ‘Scope 3’ climate metrics, where available. Further information on this is included in the main body of the report.

Data quality has increased over the year, although not significantly. Data quality has increased most materially within the DB Private Debt portfolio, although not to the extent that the Trustee considers it suitable to include within the report.

Finally, as both the Scheme’s investment allocation and strategy has not materially changed and the modelling methodology has not significantly evolved over the year, the Trustee has decided not to update the funding and investment climate scenario analysis. The Trustee expects the climate scenario modelling performed for last year’s report to continue to provide an accurate analysis of the climate risk exposure of the Scheme’s investments.

The Trustee recognises the importance of engaging with you, our valued members, on this topic. The Trustee is committed to keeping members informed about our efforts to address climate-related risks and opportunities and members are encouraged to ask questions, provide feedback, and share perspectives on how the Trustee can further enhance their approach to climate change considerations.

Members are encouraged to contact the Trustee if there are comments they wish to raise. These can be raised by email at [pensions.admin@abfoods.com](mailto:pensions.admin@abfoods.com) or by calling **the Pensions Team on 0800 090 2267** (free to call from UK landlines and mobiles). This report is available online at TCFD Report - Associated British Foods | Pension Scheme ([abfpensions.com](http://abfpensions.com)). For calls from outside the UK: +44 (0)20 7636 8111. The team are available Monday to Friday, from 9am to 5pm.

### **James G West**

Trustee Chairman, for and on behalf of the Associated British Foods Pension Trustees Limited as Trustee of the Associated British Foods Pension Scheme

## Governance

### The Trustee’s approach to climate-related risks and opportunities

The Trustee’s approach to the oversight and management of climate-related risks and opportunities is consistent with its approach to considering other financially material risks and opportunities facing the Scheme: the Trustee’s Statement of Investment Principles (the “SIP”) details the key objectives, risks and approach to considering environmental, social and corporate governance factors, including climate change and stewardship, as part of its investment decision making. The SIP is reviewed at least on a triennial basis or more frequently as required, that last review being made in March 2024 to reflect the transition of the DB Section to the low-dependency portfolio.

The Trustee holds the following responsible investment beliefs, which are set out in the SIP and were last reviewed in August 2023 as part of a wider review of the SIP:

**ESG integration:** good stewardship and environmental, social and governance issues may have a material impact on investment performance and risk, and that good stewardship can create and preserve the value of companies and markets.

**Climate change risk:** Long-term sustainability issues, particularly climate change, present risks and opportunities that increasingly may require explicit consideration.

**Stewardship (or active ownership):** Good stewardship can create and preserve value for companies and markets as a whole, which has the potential to benefit Scheme members in the long term. Engagement and voting are influential and can be effective in changing behaviour and increasing returns. The Scheme’s investment managers are best placed to manage risks related to ESG, to engage with companies and to effect change on the Trustee’s behalf on a day-to-day basis. The Trustee expects its FCA registered managers to comply with the UK Stewardship Code. The Trustee encourages its non-FCA authorised managers to adhere to the Stewardship Code on a best-efforts basis. The Trustee is taking steps to communicate these views with its investment managers.

The Trustee has determined the following key engagement priorities, which will be reviewed from time-to-time. The priorities were last reviewed in August 2023:

Engagement Priority	Rational
<b>Environment:</b> Climate Change	<p>Climate-related financial impacts are driven by the associated transition to a low-carbon economy and the physical damages of different climate outcomes.</p> <p>The Trustee believes climate change issues present risks and opportunities that increasingly may require explicit consideration</p>

Engagement Priority	Rational
<b>Social:</b> Human rights including modern Slavery	<p>Workforce and supply chain safety and human rights practices should avoid contributing to modern slavery, exploitation and other human rights abuses – these can contribute to economic instability, the threat of social tension and subsequent political instability which, in turn, may have a negative impact on investment performance.</p> <p>The Trustee notes alignment of this priority with the Company’s Supplier Code of Conduct and the commitments made therein.</p>
<b>Governance:</b> Executive remuneration	<p>Executives have significant influence over the financial success of the companies which they manage. Therefore, executive remuneration policies can have a meaningful impact on the return of investors in companies. These policies should attract and retain talent whilst ensuring alignment of incentives with company and shareholder objectives.</p>

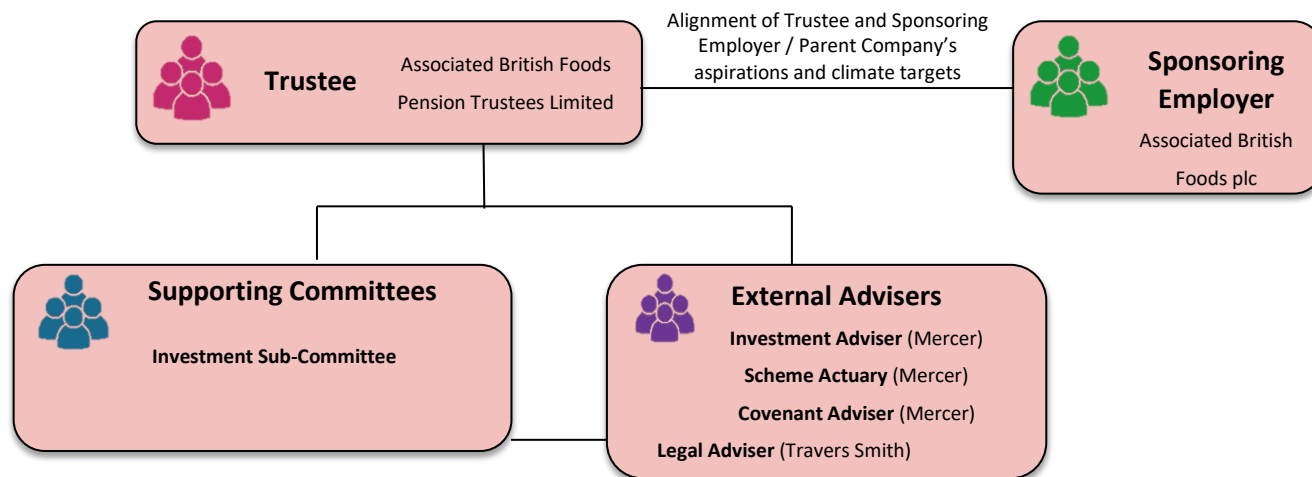
These engagement priorities are based on the Trustee’s belief that ESG issues, across each of the three factors, may have a material impact on investment performance. As such, the Trustee has determined what they consider the most salient topic within each of the three ESG factors. The engagement priorities are used to determine the significant votes to include within the implementation statement.

The Trustee maintains a Climate Governance Policy, which outlines the roles of the Trustee, ISC, in-house pensions team and relevant professional advisers in respect of climate-related risks and opportunities, and the governance processes around this. This was reviewed in March 2024 and no changes were made as it remained appropriate. The Trustee maintains oversight of climate-related risks and opportunities through discussion at the ISC, with key summaries provided at full Trustee Board meetings. Further details of the roles and responsibilities of those parties advising or assisting the Trustee, together with a summary of relevant activity over the year, are provided later in this section.

The Trustee expects all advisers to act with integrity and diligence in fulfilling the set objectives and uses meetings with the advisers to assess and challenge them. Where relevant, this includes discussion of the steps taken by advisers to identify, assess and manage any climate-related risks and opportunities. The investment consultant’s approach to climate change and how it is integrated into its advice and services is assessed as part of the adviser selection and monitoring process. The Trustee sets its investment consultant’s objectives, including objectives related to ESG and climate change competency. The investment consultant is formally assessed against these objectives annually, with the last review occurring in September 2023. This review found Mercer to have performed strongly against the ESG and climate change objective given the extensive advice and support provided in producing the Trustee’s first TCFD report. The Trustee will consider adopting a similar approach for other relevant advisers, including the scheme actuary, covenant adviser and in-house pensions team as appropriate.

## Key Trustee responsibilities and oversight of climate change risks

Figure 2: Key parties involved in overseeing climate change risks for the Scheme



The Trustee has ultimate responsibility for ensuring effective governance of climate change risks and opportunities in relation to the Scheme's investment and funding strategies.

The ISC undertake specific actions, especially in relation to considering investment strategy and liaising with investment managers.

To aid the Trustee in carrying out this responsibility, the Trustee receives support from the in-house pensions team, advice from its external professional advisers and delegates certain responsibilities to its appointed investment managers. The ISC undertakes scheme governance activities on behalf of the Trustee in respect of climate-related risks and opportunities and receives advice and assistance from the Trustee's in-house pensions team and external advisers as set out in further detail below.

Over the reporting period, the Trustee's relevant **professional advisers** were:

**Mercer, as the investment consultant**, who:

- Advised on strategic asset allocation taking into account climate risk, greenhouse gas emissions targets and changes to investment mandates;
- Monitored investment managers, including in relation to the integration of climate risk into their investment processes. Over the year to 5 April 2024, Mercer improved their ESG rating of the Liontrust and Schroders strategies, meaning these strategies are considered to have greater integration of ESG considerations than previously, no other ESG rating changes occurred over the year.
- Provided advice in relation to the continued appropriateness of the climate-related scenario analysis, climate-related metrics and climate targets for the Scheme;
- Produced the annual TCFD dashboard report which includes various climate metrics, outlines climate-related risks or opportunities on an ongoing basis and monitors progress against the Trustee's climate-related targets; and
- Liaised with investment managers and other professional advisers to provide training to the Trustee and the ISC on climate change.

**Sam Eida of Mercer, as the Scheme Actuary (and James Bourne of Mercer, as former Scheme Actuary),** who:

- Advised on the funding position of the Scheme including an understanding of the potential funding impact resulting from changes to financial or demographic assumptions driven by climate change;
- Advised on funding strategy robustness to climate risk. Provided input to enable strategic asset allocation decisions to be made considering the impact of climate risks on funding strategy; and
- Provided input into scenario analysis and advised on funding implications.

**Mercer, as the covenant adviser,** who:

- Assesses the Sponsoring Employer's ability to continue to financially support the Scheme now and in the future. As part of the advisory cycle, and at least annually, Mercer's review includes climate risk considerations which may impact the employer covenant.
- In 2023 the Trustee instructed Mercer to prepare a high-level TCFD paper which considered the physical and transitional risks that may impact the ABF employer covenant, over the short, medium, and longer term.

Over the reporting period, the Trustee was also supported by the **ABF in-house pensions team,** who:

- Assisted with the organisation of meetings;
- Facilitated reporting to the Trustee Board;
- Facilitated appropriate communications to members;
- Assisted the Trustee in the general running of the Scheme and undertook Scheme governance activities on behalf of the Trustee, such as coordinating required public disclosures and the work outputs of the relevant professional advisers; and
- Liaised with investment managers and professional advisers to provide training to the Trustee and the ISC on climate change.

In addition, **Travers Smith,** as the legal adviser, provided advice as necessary on legal risks and regulatory developments including those relating to climate change.

## **Training and climate competency**

Given the extent of work and training carried out over the previous, the overall resources and time committed to considering climate related risks was reduced over the year to 5 April 2024.

However, the Trustee and ISC continued to monitor climate related risks during their quarterly meetings and in-line with their risk management framework. The ISC and Trustee Board explicitly discussed climate-related risks at their Q1 2024 meetings, where the updated TCFD Dashboard was presented.

The Trustee works with the Scheme's advisers to identify the training needs of ISC committee members (and the wider Trustee Board) and make training recommendations to the Trustee to help them achieve an appropriate degree of knowledge and understanding relating to climate change and the requirements of the TCFD regulations. The ISC received training on the requirements of their second TCFD report and, more broadly, on scope 3 emissions at the February 2024 ISC meeting.

## Strategy

### The Trustee’s approach to managing strategic climate change risks and opportunities

The climate scenario analysis performed in 2023 reflected both the DB Section’s transition to the low-dependency portfolio and the strategy of the DC target date funds, both of which have not materially changed over the year. In addition, the modelling methodology has not significantly evolved over the year. As such the Trustee expects the 2023 climate scenario modelling continues to provide a fair reflection of the climate risk exposure of the Scheme’s investments and has therefore taken the decision not to refresh this analysis. The results and methodology of the 2023 analysis is presented in this report alongside updates made to the Trustee’s investment strategy over the year.

### Summary of Scheme’s Assets - DB Section

Given the DB Section’s funding position, the Trustee and ABF have agreed to transition the investment strategy to a low-dependency portfolio. The Trustee began this transition in September 2023 and intends to conclude it by the end of 2026. To facilitate this transition the allocation to equities has been reduced over the year, in favour of fixed income assets.

The 2023 scenario analysis reflects this transition, full details of the modelling is provided in the “Impact on DB Section investments and funding” section of the report.

The table below sets out the actual asset allocation as at 30 September 2022 and the Strategic Asset Allocation. It also includes the Low-Dependency Target Allocation.

Figure 3: DB Section asset allocation

Asset Class	Actual Asset Allocation at 30 Sept 2022	Strategic Asset Allocation at 30 Sept 2022	Low-Dependency Target Allocation
Equity (Artemis, Calamos, Liontrust, Schroders, Veritas)	33.8%	31.5%	16%
UK Property (Internally managed)	10.3%	10.0%	6%

Asset Class	Actual Asset Allocation at 30 Sept 2022	Strategic Asset Allocation at 30 Sept 2022	Low-Dependency Target Allocation
Fixed Income			
<ul style="list-style-type: none"> <li>Public Investment Grade Credit (GSAM)</li> <li>Public Credit (Beach Point, CQS)</li> <li>Bonds - Private Debt (Beach Point, Ares, Haymarket Financial, MezzVest, Arcmont, HIG Capital, Neuberger Bergman, Cordet, EQT, Muzinich, MSIM, Alcentra, Ninety One)</li> <li>Liability Driven Investment &amp; Cash (Insight, BlackRock)</li> </ul>	55.9%	58.5%	78%

## Summary of Scheme's Assets - DC Section

The Scheme's DC default investment arrangements are Target Date Funds ("TDFs") managed by Alliance Bernstein, by way of an insurance contract using an investment platform with Mobius Life. All other investments for the DC Section are also held on the same investment platform.

As a minimum, the scope of reporting for DC arrangements is expected to cover popular arrangement(s), which is considered to meet one of the following criteria:

- £100m or more of invested DC assets; or
- Accounts for 10% or more of the assets used to provide money purchase benefits.

Based on this definition, the Scheme's previously had one popular arrangement, the AllianceBernstein TDF 2035-37. For this year the AllianceBernstein TDF 2038-2040 has also become a popular arrangement. This has changed from last year where only the 2035-37 TDF was deemed a popular arrangement, this is because the 2038-2040 now accounts for more than 10% of the assets used to provide money purchase benefits.

Climate change scenario analysis was completed for the 2023 report for the Scheme's popular arrangement at that time as well as the following additional TDFs in order to show the impact of climate change on a range of member ages. These additional TDFs covered the Scheme's new popular arrangement. As such the scenario analysis has not been updated for the Scheme year as all existing popular arrangement are covered and there have been no changes to the TDFs or the climate scenario modelling. The current climate scenario analysis continues to reflect Mercer's best estimate of the impact of climate change on the Scheme.

Changes to the TDFs have been agreed over the year, which are due to be implemented over the coming year. The Trustee will therefore consider updating the climate change scenario analysis to reflect these changes in next year's report.

Figure 4: TDFs considered for DC Section scenario analysis

Member approaching retirement:	Members mid-way through the retirement journey:	Younger member:
2023-2025 TDF	2035-2037 TDF (popular arrangement)	2050-2052 TDF
	2038-2040 TDF (new popular arrangement)	2062-2064 TDF
		2071-2073 TDF

Assets within the above TDFs represent 32.9% of the total DC Section assets as at 30 September 2023, this compares with 32.8% as at 30 September 2022.

### Climate change timescales

The Trustee believes that sustainability issues, including climate change, present risks and opportunities, which increasingly require consideration. Climate change is identified and described as a systemic risk, which may materially affect the financial performance of the Scheme’s investments and/or be material to its DB funding strategy.

The Trustee has considered the following time horizons:

Figure 5: Timeframes of short, medium and long-term horizons to identify relevant climate-related risks and opportunities.

DB Section		
From 30 September 2022		
Short term	2027 (5 years)	Aligns with the possible transition period to a low-dependency investment strategy
Medium term	2037 (15 years)	Aligns with broad peak cash flow of the Scheme
Long term	2047 (25 years)	Beyond the average duration of the active and deferred liabilities

DC Section		
From 30 September 2022		
Short term	2027 (5 years)	Aligns with a member who is approaching retirement.
Medium term	2042 (20 years)	Aligns with a member who is approximately halfway through their journey to retirement.
Long term	2062 (40 years)	Aligns with a member who is just beginning their journey to retirement.

The Trustee’s risk considerations over these timeframes are outlined in the following section.

The Trustee, through the ISC as appropriate, from time to time considers approaches to climate change risks and opportunities as part of its ongoing investment strategy and funding strategy. The climate scenario analysis (and climate metrics) helps the Trustee to consider how the Scheme is exposed to climate-related risks and opportunities.

## **Climate-related risks and opportunities relevant to the Scheme over the time periods that the Trustee has identified and the impact of these on the Scheme's investment strategy**

### **Climate-related Risks**

One of the greatest impacts to the Scheme from climate change is investment risk. The performance of the Scheme's portfolios is directly aligned with the value of the underlying assets, which are increasingly impacted by climate-related risks.

The Trustee seeks to ensure that the Scheme's investment strategy is well-diversified and that the investment managers have an appropriate understanding of both the companies and assets in which they invest and the risks to which they are exposed. The Trustee has set carbon footprint reduction targets for the DB Section's Equity and Fixed Income GSAM portfolio as well as the DC Section's TDFs. The Trustee has engaged with managers to make them aware of these targets and monitors the managers against them. As data availability improves the Trustee will be able to consider extending such targets to the Scheme's other managers but does not feel data availability is sufficient to do so at this stage.

The Trustee monitors on an annual basis the carbon intensity of the Scheme's assets and how this changes over time, where the information is available. The carbon intensity for each of the Scheme's assets and impact on the Scheme's investment and funding strategy has been reported (where available) within the Scenario Analysis section below and the Metrics section of this report.

The Trustee has considered the following short, medium and long-term drivers of risk in relation to climate change:

Over the short term (out to 5 years), risks may present themselves through rapid market re-pricing relating to climate transition as:

- Scenario pathways become clearer. For example, a change in the likelihood of a well below 2°C scenario occurring and driving the transition risk;
- Market awareness grows. For example, the cost and impacts of the transition suddenly influence market pricing;
- Policy changes unexpectedly surprise markets. For example, if a carbon price or significant regulatory requirement was introduced across key markets to which the portfolio is exposed, at a sufficiently high price to impact behaviour;
- Substitution of existing products and services with lower emission alternatives may impact part of the portfolio;
- Litigation risk relating to dangerous warming becoming more prevalent; and
- Increases in the energy/heat efficiency of buildings and infrastructure.

Over the medium term (out to 15-20 years), risks are likely to be more balanced reflecting both transition and physical risk. Over this time period the transition pathway will unfold and the level of anticipated physical damage will become much clearer. While the full extent of the physical damage is unlikely to have occurred, markets are likely to be allowing for it to a large degree in asset pricing.

Over the long term (beyond 25 years), physical risks are expected to come to the fore. This includes the impact of natural catastrophes leading to physical damages through extreme weather events. Availability of resources is expected to become more important if changes in weather patterns) affect the availability of natural resources such as water.

### **Climate-related Opportunities**

There are significant opportunities for investing in companies and assets that may benefit the Scheme's portfolio as the economy transitions to a lower carbon environment. For example, over the short term, taking advantage of the climate transition by avoiding and reducing investment in high-emitting carbon sensitive businesses/assets that do not have a business plan that supports the transition to a low carbon economy.

The Trustee has given its investment managers discretion when evaluating ESG factors (including climate change considerations). The Trustee is taking steps to communicate its expectations to its investment managers to therefore consider the impacts of climate change on risk and return, including any opportunities that may arise, when managing the Scheme's assets. The Trustee seeks to select managers and choose indices that can identify potential emergence of low carbon opportunities and the decline of some traditional sectors. In addition, as the DB Section's transition to the low-dependency portfolio progresses the exposure to asset classes with higher climate risk exposure, such as equities, will reduce.

Climate risks and opportunities will be considered as part of future investment strategy reviews for the DB and DC Sections where appropriate. In particular, climate risk and opportunities were discussed as part of a proposal to introduce private market allocations to the DC TDFs (the proposed changes to the TDF were not implemented within the Scheme year).

### **Climate change scenarios**

This section considers the impact of three climate scenarios, relative to a base case scenario<sup>2</sup>, where financial markets behave in line with Mercer's capital market assumptions as at 30 September 2022. These are defined as 'warming pathways': the expected degrees of warming of the atmosphere by the end of the century relative to pre-industrial levels.

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<sup>2</sup> See Appendix 2 for more detail on the base case scenario.

Figure 6: Mercer’s climate change scenarios

	1.5°C Scenario – Rapid Transition	<2.0°C Scenario – Orderly Transition	4.0°C Scenario – Failed Transition
<b>Overview</b>	<p>Average temperature increase of 1.5°C by 2100 in line with the Paris Agreement.</p> <p>This scenario assumes sudden large-scale downward re-pricing across multiple securities in 2026. This could be driven by a change in policy or realisation that policy change is inevitable, consideration of stranded assets or expected cost. To a degree the shock is sentiment driven and is therefore followed by a partial recovery across markets. The physical damages are most limited under this scenario.</p>	<p>Average temperature increase of less than 2.0°C by 2100.</p> <p>This scenario assumes political and social organisations act in a quick, predictable, co-ordinated way to implement the recommendations of the Paris Agreement to limit global warming to well below 2°C. Transition impacts do occur but are relatively muted across the broad market.</p>	<p>Average temperature increase above 4°C by 2100.</p> <p>This scenario assumes the world fails to co-ordinate a transition to a low-carbon economy and global warming exceeds 4°C above pre-industrial levels by 2100. Physical climate impacts cause large reductions in economic productivity and increasingly negative impacts from extreme weather events. These are reflected in re-pricing events in the late 2020s and late 2030s.</p>

These scenarios align with those recommended in the Department for Work and Pensions in its statutory guidance on pension scheme TCFD reporting. Running analysis against lower and higher warming pathways allows the Trustee to explore the potential impact of both transition risks and physical risks.

Climate scenario analysis is an evolving space and, as such, the scenarios modelled and reported may be subject to review in future periods. Appendix 2 provides further information on the key assumptions and limitations of the climate scenario modelling. It is important to note that the modelling may understate the true level of risk due to the uncertainty around the future economic impacts of climate change.

### Impact on DB Section investments and funding

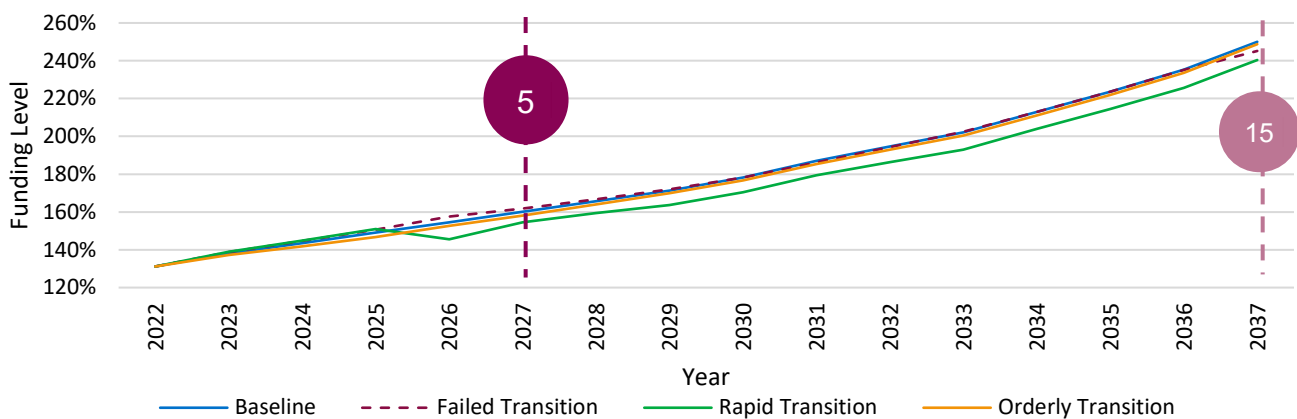
Over a 3 to 5 year period from 30 September 2023, the DB Section will transition to the Low-Dependency Target Allocation. As such, the portfolio is c. 6-months into this transition as at 5 April 2024. As there is reasonable certainty over the path of the transition to the low-dependency portfolio (albeit the final allocations and timing may be subject to change), this transition is reflected as part of the climate scenario analysis. Specifically, in producing the analysis, the asset allocation has been phased over a period of 5 years from the actual asset allocation as at 30 September 2022 to the Low-Dependency Target Allocation. The Trustee notes that it currently intends to complete the transition sooner than 5-years but it does not expect this shorter transition timeframe to materially impact the climate change scenario analysis. Once the Low-Dependency Target Allocation is reached the asset allocation is assumed to remain static.

In addition, given the strong funding level of the DB Section, the Trustee has agreed a contribution abatement with the Sponsor, which commenced in October 2023. The continuation of the contribution abatement is subject to an annual check of the funding position at each 5 April. As such, the analysis assumes there are no further DB contributions over the projection period.

The funding level projections are heavily influenced by the starting funding position, which is very strong. As a result, the projections show the funding position reaching very high levels over the medium to long-term. The

Trustee notes that the important aspect of the scenario analysis is the funding level relative to the baseline, as opposed to the actual funding level in each scenario. Further, as part of the evolution of the low-dependency portfolio, actions will be taken to maintain the funding level at appropriate levels. However, the results do show that, in all scenarios and timeframes considered, the DB Section is expected to be very well funded, suggesting that the security of the DB members' benefits is not materially exposed to climate risk.

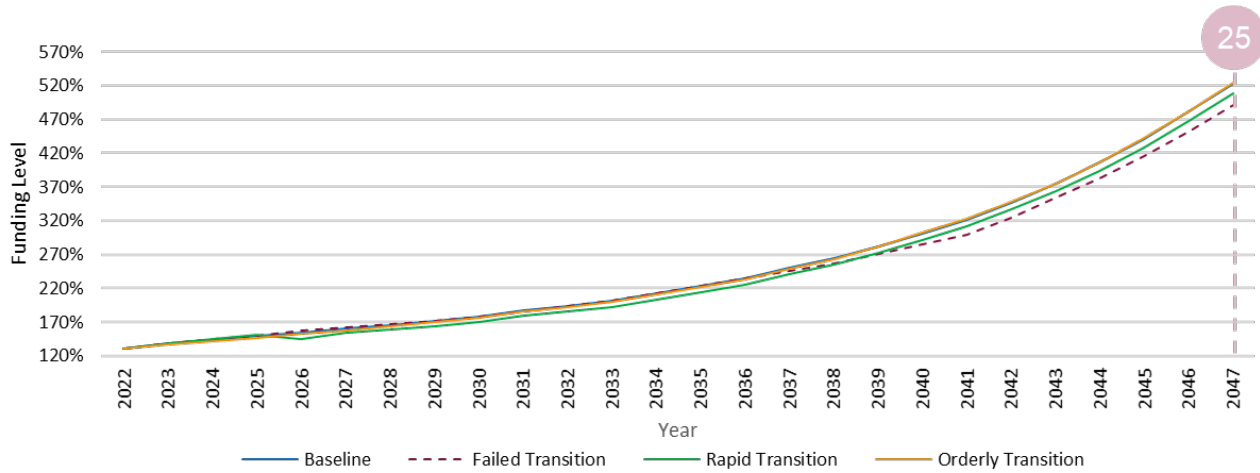
Figure 7: DB Section - 15 year projection



In the **short term** (5 years), transition risk dominates, with the Rapid Transition having the largest impact. A funding level loss of c.5.5% is projected (i.e. over the short term, the funding level under a Rapid Transition scenario is 5.5% worse than in the central, baseline scenario), due to a reduction in expected investment returns of c.0.7% p.a., as unprecedented policy action causes markets to initially overreact. All asset classes within the Scheme's investment strategy experience losses except LDI and cash. The market is then assumed to largely recover in subsequent years. The credit mandates contribute to the rebound on the basis of limited additional defaults. In the short term, the DB Section performs best in the Failed Transition, with a projected funding level gain of c.1.7% relative to the baseline. This is a result of the markets not re-pricing and as a result growth assets like equities performing well. Overall, the Trustee considers the Scheme to be resilient to climate risk over this period.

Over the **medium term** (15 years), physical risks begin to be priced in. At this point it is projected that all scenarios experience a drop in funding level relative to the baseline. The largest impact is seen in the Rapid Transition, with a funding level fall of c. 9.6% relative to baseline (i.e. over the medium term, the funding level under a Rapid Transition scenario is 9.6% worse than in the central, baseline scenario). This is due to the large transition impact on equity valuations which, over this timeframe, have not experienced the benefit of lower physical impact of the Rapid Transition. The Orderly Transition has a marginally negative impact, with a cumulative loss of c.1.3% relative to the baseline. This is due to these impacts being (a) relatively small and (b) priced in to an extent. Overall, the Trustee considers the Scheme to be resilient to climate risk over this period. The Failed Transition scenario lies in between the other two scenarios, as physical risks begin to be priced in.

Figure 8: DB Section - 25 year projection



Over the **long term** (25 years), the DB Section assets fare better under the Orderly Transition versus the baseline with a funding level rise of c.1.2% projected (i.e. over the long term, the funding level under an Orderly Transition scenario is 1.2% better than in the central, baseline scenario). Over this longer period physical impacts are lower in both the Orderly and Rapid transition due to temperature rises being limited. Therefore both these scenarios perform materially better than the Failed Transition (by 33.1% and 17.6% in funding level terms respectively), where physical impacts are most acutely felt given higher temperature rises. However, under all scenarios the funding level is significantly above 100% and therefore the Scheme is considered to be resilient to climate risk over this longer period. A summary of the results is provided in the table below.

Figure 9: DB Section – funding level projections relative to baseline<sup>3</sup>

Funding level projection relative to baseline			
	Short term (5 Years)	Medium term (15 years)	Long term (25 years)
<b>Rapid Transition</b>	-5.5%	-9.6%	-14.3%
<b>Orderly Transition</b>	-2.0%	-1.3%	+1.2%
<b>Failed Transition</b>	+1.7%	-4.8%	-31.9%

Overall, the Trustee believes the DB Section’s investment strategy and funding level demonstrate robustness with respect to the potential impact of climate change across the scenarios over each of the timeperiods considered. The Trustee notes this is largely due to the current strong funding position of the Scheme and the de-risking that will occur as a result of the transition to the Low-Dependency Target Allocation.

### Impact on life expectancy

The analysis above ignores any impact that these scenarios might have on life expectancy of pension scheme members.

<sup>3</sup> See Appendix 2 for a summary of how the DB Section assets perform in the different scenarios over time.

The Trustee has carried out a separate analysis of potential mortality impacts from climate-related scenarios, this analysis covers both the transition and physical risks described previously. The balance between these will vary over different time horizons as discussed in the Climate-related Risks section above.

The scenarios considered by the Trustee are in line with those detailed in Figure 6 of this report, i.e. Rapid Transition, Orderly Transition and Failed Transition. We also show one further scenario, ‘Middle of the Road’, which falls between the Orderly and Failed Transition scenarios.

In modelling scenarios for mortality impacts, the Trustee’s advisers have made use of:

- Representative Concentration Pathways (RCPs) and Shared Socioeconomic Pathways (SSPs) as defined by the UN Intergovernmental Panel on Climate Change (IPCC), including estimated projected temperatures.
- Relationships between each SSP and a range of socioeconomic and other variables as published by the UK Climate Resilience Program and modelling of how changes to those variables would affect UK mortality rates.
- UK-based climate projections from the Met Office, with correlations between past climate data and mortality rates being used to predict future influences.

Our modelling indicates the following scenario outcomes, each compared to mortality assumptions constructed with no explicit allowance for climate-related risks<sup>4</sup>:

Figure 10: DB Section - Impact of climate scenarios on life expectancy

SSP	RCP	Likely temperature increase to 2100 vs pre-industrial	Scenario	Life Expectancy Change		Scheme Liability Impact
				Age 25	Age 65	
1	1.9	Within ~ 1.5 °C	Rapid Transition	+ 1 month*	+ 22 months*	+ 6.5%
1	2.6	Within ~ 2 °C	Orderly Transition			
2	4.5	Within ~ 3 °C	Middle of the Road	- 13 months*	+ 12 months*	+ 3.3%
3	7	Within ~ 4 °C	Failed Transition	- 62 months*	- 3 months*	- 1.9%

In the Scheme’s DB Section, the youngest member (ignoring dependants) is aged 39 and the oldest pensioners are over age 100. For reference, in the DC Section, the youngest members are aged 18, while the oldest members are over age 65.

As shown above, climate-related longevity uncertainty is higher in respect of younger generations, though there is more funding risk associated with climate-positive scenarios and their implications for improved shorter-term mortality for current pensioners. Key drivers of differences in life expectancies between the scenarios include GDP growth and health care provision, in addition to the impact of temperature rises.

<sup>4</sup> It is important to note that these “Results” are based on longevity projection models and third-party data which may produce output that differ materially from actual outcomes. The Results are set out for informational purposes only and should not be used for any other purpose. In particular, the Results should not be relied upon and they are not suitable for repurposing, copying, redistributing or modifying. The model provider disclaims all liability and makes no representations about the suitability for any purpose of the Results and such content is supplied on an as is basis, without any warranty of any kind.

Based on this analysis, mortality changes arising from the direct and indirect impact of climate change may be material to the funding position longer term. The Trustee regularly reviews the funding position of the Scheme as part of its integrated risk management framework.

### **Impact on the sponsoring employer**

As ABF is the ultimate parent to the Group, and a sponsoring Employer of the Scheme, Mercer considers it appropriate to assess climate-related risks and opportunities at a Group level.

ABF Group has an ambition to become net zero by 2050. To date the Group's focus has been to reduce emissions for its material businesses (Primark, Sugar, and Twinings) where significant risks exist - these businesses have set challenging interim targets to reduce greenhouse gas emissions by 2030.

In 2022 ABF worked with third party experts (South Pole) to perform scenario analysis on a range of different scenarios, including <2°C and 4°C, to assess Group resilience. Risks and opportunities have been considered over three time horizons: Short-term (by 2025), Medium-term (by 2030) and Long-term (by 2050).

To date, the Group has prepared largely qualitative disclosures in relation to TCFD (quantitative assessments are expected in future years). Consequently, the work that the Trustee can reasonably undertake with respect to the impact of climate change on the employer is also based on a qualitative assessment.

Climate-related risks are considered integral to ABF's long-term success and as such have been fully integrated into the Group's strategic plans. ABF operates a diverse portfolio that spans multiple geographies, which partly reduces its exposure to individual climate-related risks. Based on the analysis prepared by the Group, Mercer's view is that over the short to medium-term, climate-related risks are considered low and unlikely to materially impact upon the employer covenant, based on risks identified by the Group that were qualitative in nature. Therefore, the Trustee and its covenant adviser anticipate the Group's robust business will be resilient against climate risks over the short- to medium-term.

The DB Section is currently well funded and as such there is a low reliance on the sponsor covenant today (sponsor covenant is the commitment from the Company to support the Scheme and meet its pension obligations). Rather than seek a buy-out of the Scheme's liabilities, which would remove the covenant reliance and the Scheme's exposure to ABF's climate risks, the Trustee and the Company intend to "run-on" the Scheme extending covenant reliance into perpetuity. Over time, should the Scheme's funding surplus reduce, its level of covenant reliance may increase. The Trustee will therefore continue to monitor the Company's employer covenant on a proportionate but frequent basis and will include climate-related risks so the Trustees can monitor the Group's exposure to climate risks.

Going forward the Trustee has requested Mercer perform an annual review of the ABF TCFD report to identify if there has been any material change in ABF's climate risk profile, with a more in-depth review being carried out on a triennial basis. Mercer's 2024 covenant update noted that the Group's 2023 TCFD report is materially unchanged from the prior year and had effectively been updated to monitor progress against targets.

### **Impact on the DC Section**

As noted earlier, DC scenario analysis last completed last year for the 2035 – 37 TDF (popular arrangement), the 2038-40 TDF (which is now also a popular arrangement) as well as 4 other TDFs (see Figure 4) to cover a broad range of member ages. The table below shows the impact on returns of the Target Dated Retirement Funds under the 3 climate scenarios. The figures below are the cumulative impact on a member's return

relative to the baseline scenario. For example, in 20 years' time, the value of a DC member's assets invested in TDF 2050-2052 is projected to be -19.9% lower under a failed transition scenario than under the baseline scenario:

Figure 11: DC Section – cumulative impact on returns relative to baseline

	Rapid Transition			Orderly Transition			Failed Transition		
	Year 5	Year 20	Year 40	Year 5	Year 20	Year 40	Year 5	Year 20	Year 40
TDF 2023-2025	-2.6%			-1.1%			0.9%		
TDF 2035-2037	-6.2%	-4.2%		-2.0%	-1.2%		1.8%	-8.8%	
TDF 2038-2040	-6.7%	-4.5%		-2.3%	-1.6%		1.9%	-10.2%	
TDF 2050-2052	-9.7%	-6.4%	-6.0%	-2.8%	-2.7%	-5.7%	2.5%	-19.9%	-23.4%
TDF 2062-2064	-9.7%	-6.1%	-5.2%	-2.8%	-3.0%	-7.7%	2.5%	-25.7%	-32.1%
TDF 2071-2073	-9.7%	-6.1%	-4.7%	-2.8%	-3.0%	-8.6%	2.5%	-25.7%	-34.4%

Over the **short term** (5 years), transition risk dominates. The Rapid Transition is the most impactful scenario, meaning this scenario has the most negative impact on member's asset value relative to the baseline. Under this scenario there is a shock to returns in year 4 followed by a partial recovery the following year. The Failed Transition is marginally positive due to expected transition costs not materialising.

Over the **medium term** (20 years) physical damages begin to be priced in, the Failed Transition becomes the most impactful scenario.

Over the **long term** (40 years), physical damages are the dominant driver and the Failed Transition is by far the worst scenario. In addition, we see the additional warming and hence damage in the Orderly Transition (compared to the Rapid Transition) meaning it becomes a more negative scenario.

Key assumptions for the scenarios used and the key limitations of the modelling are detailed in Appendix 2.

## Risk Management

The Trustee recognises that climate-related risks can be financially material, and that due consideration of climate risk falls within the scope of the Trustee's fiduciary duty. Given the long-term nature of the Scheme's investments and the timeframe in which climate risks could materialise, a total portfolio approach to risk management covering all sectors and all relevant asset classes has been taken, coupled with funding and covenant analysis for the DB Section.

This section summarises the primary climate-related risk management processes and activities of the Trustee. These help the Trustee identify and understand the materiality of climate-related risks, both in absolute terms and relative to other risks to which the Scheme is exposed, and to integrate this within the Trustee's overall risk management framework. The Trustee's approach to managing climate-related risk has not materially changed over the year.

### Governance

The Trustee reviews climate change developments to identify risks and opportunities for the Scheme regularly. In particular, the Trustee reviews the DB Section's investment managers' ESG ratings, provided by Mercer, quarterly and the DC Section's manager annually. Climate-related risks are referenced in the Trustee's risk register, which is reviewed at the Trustee board meetings on a quarterly basis to ensure the Scheme's risks are effectively managed.

The Trustee reviews the advice and services provided by its advisers as part of the selection and monitoring process and questions and challenges the advice it receives where appropriate.

The Trustee and ISC receives training from Mercer as appropriate on climate-related risks and opportunities, including market and regulatory updates.

### Strategy

The Trustee has carried out climate change scenario modelling which provides a strategic assessment of climate change risks and opportunities. This focused on the Scheme's potential exposure to both transition and physical risks.

Whilst the Scheme has low reliance on its sponsor covenant, given its very strong funding position, the Trustee has also consulted with its covenant adviser, Mercer, regarding the impact of climate change on the Company. This indicated that climate-related risks are considered integral to ABF's long-term success and as such have been integrated into the Group's strategic plans.

The impact on climate-related risks and opportunities were considered as part of the investment strategy review of the TDFs which took place over year.

Furthermore, ABF has a diverse portfolio of businesses that spans multiple geographies. Therefore, the Trustee anticipates the Group will be able to manage the risks faced over the short- to medium-term.

## Metrics and Targets

As set out later in this report, the Trustee has assessed the Scheme using a number of climate-related metrics to identify potential areas of risk and to inform Trustee consideration of how these risks can be appropriately assessed and managed.

Considering the importance of climate risk compared to the other risks that the Scheme faces, the Trustee has set targets to reduce greenhouse gas emissions, which broadly align with the Paris Climate Change Agreement. The Trustee monitors progress against these targets annually. The Trustee believes that this will help it to take steps to reduce climate-related risk over time.

The Trustee recognises the challenges with various metrics, tools and modelling techniques used to assess climate change risks. The Trustee aims to work with its investment consultants and investment managers to improve its approach to assessing and managing risks over time.

## Manager selection, monitoring and retention

The Trustee relies on third-party investment managers to manage Scheme assets. Part of the managers' day to day functions includes looking at climate change related risks on specific assets, as relevant. Therefore, the managers in turn are regularly assessed, including as to ESG and climate risk effectiveness, using the Trustee investment consultant's ESG investment manager research ratings and as part of the annual TCFD report and Implementation Statement. ESG credentials also factor into the decision-making process when appointing new investment managers.

Where relevant, managers are invited to present to the ISC to explain their approach to climate change risk management, amongst other topics. Over the year the ISC met and discussed ESG integration with three DB private debt managers (Arcmont, Neuberger Berman and BeachPoint – who also manage a portion of the liquid credit portfolio), a DB equity manager (Artemis) and the DB LDI manager (Insight).

## Active stewardship

The Trustee recognises that active ownership by the investment managers will continue to be a very important part of the Scheme's approach to managing these risks. The Scheme's voting rights are exercised by its investment managers in accordance with their own corporate governance policies. The Trustee expects its FCA registered managers to comply with the UK Stewardship Code. The Trustee encourages its non-FCA authorised managers to adhere to the Stewardship Code on a best-efforts basis. The Trustee is taking steps to communicate these views with its investment managers. The Trustee may, from time to time, ask the Scheme's Investment Managers to explain their corporate governance policy and practices and review their voting activities. In particular, the Trustee asks the Investment Managers to provide annual reports indicating the overall level of voting activity and detailing any instances where they have not voted in line with their stated policy. The Trustee notes that Veritas, a DB Equity Portfolio manager, voted against a number of climate change proposals relating to Alphabet Inc. (the parent company of Google). The Trustee received the rationale for these voting decisions and, upon review, determined no action was required.

The Trustee has determined three key engagement priorities which are described in detail in the Governance section of this report. These engagement priorities are based on the Trustee's belief that ESG issues, across each of the three factors, may have a material impact on investment performance. These engagement priorities are used to determine the significant votes to include within the implementation statement and what key engagement themes are focussed upon when review investment managers voting activity throughout the year.

## Metrics

### Key metrics for climate change related risks

Climate risk metrics aid the assessment of potential climate-related risks to which the Scheme is exposed and help to identify areas for further risk management, including engagement and fund manager monitoring.

The Trustee recognises that the availability of accurate data for some asset classes or methodology is an industry-wide issue. However, the Trustee has noticed improvements in the ability of investment managers to report climate metrics and will continue to engage with them to further refine their climate reporting.

The Trustee has chosen to report on the following metrics:

Figure 12: Summary of chosen metrics

Metric type	Description
1. <b>Absolute emissions:</b> Total greenhouse gas emissions	The total greenhouse gas emissions (in metric tons) of the Scheme’s investments.
2a. <b>Emissions intensity:</b> Carbon footprint	Total greenhouse gas emissions (in metric tons) weighted to take account of the size of the investment made (in US \$million).
2b. <b>Alternative emissions intensity:</b> Weighted Average Carbon Intensity (“WACI”)	The average, based on the size of the Scheme’s holding in each investment, of the greenhouse gas emissions (in metric tons) divided by revenue (in US \$million) associated with each investment
3. <b>Portfolio Alignment:</b> Implied temperature rise (“ITR”)	An estimate of the level of global warming consistent with the Scheme’s investments. Alignment is measured relative to the Paris Agreement goal of limiting the increase in global average temperature to 1.5°C above pre-industrial levels.
4. <b>Additional metrics:</b> Data quality	Proportion of the portfolio for which emissions data is verified, reported, estimated or unavailable.

The Trustee has chosen **total greenhouse gas emissions as its absolute emissions metric** and **carbon footprint as its emissions intensity metric** in line with the Department for Work and Pensions recommendations. In addition to carbon footprint, the Trustee has also chosen to report **WACI as an additional emissions intensity metric**. This is currently the preferred intensity metric for a number of the Scheme’s investment managers and has been chosen given the higher levels of data coverage for this metric.

In terms of emissions-based metrics (total greenhouse gas emissions, carbon footprint and WACI), given data availability and the regulatory requirements, the Trustee has made progress from last year in which only aggregate Scope 1 and 2 emissions were reported. Scope 3 emissions, where available, have been included within the results section later in the report. Scope 1, 2 and 3 emissions are defined as follows:

- **Scope 1 “direct” emissions:** those from sources owned or controlled by the Company (e.g. direct combustion of fuel from vehicles); and
- **Scope 2 “indirect” emissions:** those caused by the generation of energy (e.g. electricity) purchased by the Company.
- **Scope 3 “indirect” emissions:** In this category are all the emissions associated, not with the company itself, but that occur in the value chain of the reporting company.

The Trustee has chosen **ITR as its portfolio alignment metric** because of its simplicity in presentation and as it is a useful way to see, at a glance, the positioning of a Scheme towards a low carbon economy. Investments with high ITR metrics are likely to have a greater transition risk.

The Trustee has also chosen **data quality as an additional non-emissions-based metric** as it quantifies the overall data coverage and helps identify mandates where the Trustee should work further with its investment managers to increase the coverage of data reported.

The Trustee recognises the challenges with various metrics, tools and modelling techniques used to assess climate change risks. Although advancements have been made since last year's report, the Trustee aims to keep working with its investment advisers and investment managers to continuously improve the approach to assessing and managing risks over time as more data becomes available. Over the year, the Trustee has seen some improvement in the availability of data for the DB Section's private debt portfolio but not to the extent that it is considered suitable to report these results.

## Results – DB Section

### Data assumptions and limitations; overall summary

The dashboard presented overleaf shows metrics data as at 30 September 2023 across the Scheme's DB public assets and compares each metrics to the 30 September 2022 position. Data requests were sent to all non-legacy DB managers, but data was not received from the following:

- UK Property internally managed (10% strategic target) due to lack of data availability on the underlying assets;
- BlackRock Currency Hedging due to the short term nature of the contracts and lack of direct carbon emissions;
- c. 60% of the private debt managers.

Given data coverage is much better for public assets, the dashboard focuses on DB public assets. The darker grey colouring in the table shows that a specific metric is not yet reported by that investment manager.

The Insight LDI data coverage figure reflects the net UK Government bond position, i.e. total physically held UK Government bonds as a proportion of the total value of the LDI portfolio.

Where managers have provided carbon footprint normalised by invested value in a currency other than USD, Mercer has converted this metric to USD for consistency across all investment managers, based on the exchange rate as at the effective date of the data (source: Refinitiv).

The Scheme's actual asset allocation has been used to compute the Scheme's aggregate metrics where relevant.

## DB Section TCFD Metrics Summary

The table summarise the DB Section's metrics as at 30 September 2023 and compare them to the prior-year's results. The Trustee makes the following observations on the metrics:

- Overall, the results are mixed with some managers, such as Liontrust, Artemis and Calamos making good progress in reducing their GHG Emissions, Carbon Footprint, and WACI. On the other hand, a few managers including Schroders, CQS, and Insight have seen their climate metrics increase since last year.
- Given the calculation methodology some of the falls in WACI are the result of inflation increasing the revenue of the companies invested in within the portfolio as opposed to these companies reducing their carbon emissions.
- The increase in the Insight total GHG Emissions is largely a result of the liability hedging portfolio increasing exposure to UK Government Bonds over the year – which helps to control other specific risks within this portfolio. This increase is driving the majority of the overall GHG Emissions increase and, as such, the Trustee is not overly concerned by this overall increase.
- The Trustee notes that the increase in CQS portfolio's carbon footprint is not as a result of an increase in emissions. Instead this is the result of one issuer, who has de-carbonised their operations over the year but has also experienced significant falls in their market capitalisation, resulting in the carbon footprint metric increasing. The Trustee recognises this shortcoming with the carbon footprint metric, which is in part why they also report on WACI, which has not increased for the CQS portfolio.
- The reduction in Liontrust's emissions are the results of the manager rotating out of some high carbon emission holdings and reallocating to holdings with lower carbon emissions. The sales of some holdings in these sectors reflected a deterioration in the investment case as per Liontrust's investment process.
- In aggregate the total GHG Emissions for the assets analysed has increased over the year by 5%.
- The GSAM evolution is impacted by the exceptionally low figure last year due to trading activity on 30 September 2022, which resulted in the holding being predominantly cash on this day, comparisons against the position last year are therefore not made.

In this second TCFD report the Trustee is also reporting on Scope 3 emissions, split by upstream and downstream emissions. The Trustee notes that data quality and availability is significantly poorer for Scope 3 emissions with almost all metrics being reported based off estimated data. However, the majority of managers, except Schroders, Calamos, and Insight, were able to report on upstream and downstream emissions.

Figure 13: Scope 1 and 2 Metrics summary as at 30 September 2023 (DB Public Assets), change over the year shown in brackets beneath each metric.

Asset Class	Manager	Allocation (£m)	Scope 1 and 2 carbon related metrics			
			Total GHG Emissions (tCo2e)	Carbon Footprint (tCo2e/US \$M invested)	WACI (tCo2e/US \$M sales)	Data coverage (% reported + % estimated)
Equity (31.5% strategic allocation)	Liontrust	280 (+1%)	19,660 (-52%)	56 (-52%)	59 (-50%)	100%
	Artemis	174 (-19%)	12,018 (-38%)	70 (-14%)	82 (-29%)	98%
	Schroders	213 (-13%)	18,988 (+1%)	73 (+8%)	100 (n/a)	100%
	Calamos	211 (-17%)	9,766 (-24%)	41 (-9%)	108 (-46%)	86%
	Veritas	184 (-16%)	1,512 (-1%)	7 (-1%)	44 (-4%)	100%
Fixed income (58.5% strategic allocation)	GSAM	63 (+635%)	3,188 (n/a)	57 (n/a)	140 (n/a)	78%
	Beach Point	347 (-4%)	44,779 (-38%)	126 (-29%)	188 (+38%)	84%
	CQS	196 (+10%)	19,127 (+42%)	114 (+32%)	86 (+0%)	70%
	Insight <sup>5</sup>	523 (-7%)	222,582 (+35%)	241 (+8%)	112 (n/a)	78%
<b>Total assets analysed</b>		<b>2,191</b> (-6%)	<b>351,620</b> (5%)			<b>87% coverage</b> (+11%)
<b>Percentage of DB assets</b>		<b>63%</b>				<b>55% total assets</b> (+6%)

Source: Investment Managers and Mercer calculations.

<sup>5</sup> As this mandate invests in UK Government Bonds the greenhouse gas emissions are based upon the annual UK greenhouse gas emissions for 2022 and the total UK Government Debt as at 30 September 2023. WACI based upon purchasing power parity adjusted GDP estimate for the UK for 2022. Data coverage reflects the net gilt exposure of the portfolio.

Figure 14: Scope 3 Metrics summary as at 30 September 2023 (DB Public Assets).

Asset Class	Manager	Allocation (£m)	Scope 3 carbon related metrics (Upstream / Downstream) shown on second line where available			
			Total GHG Emissions (tCo2e)	Carbon Footprint (tCo2e/US \$M invested)	WACI (tCo2e/US \$M sales)	Data coverage (% reported + % estimated)
Equity (31.5% strategic allocation)	Liontrust	280	535,722 (122,963 / 412,760)	536 (123 / 413)	738 (205 / 533)	100%
	Artemis	174	139,787 (37,475 / 102,312)	818 (219 / 598)	1,074 (252/822)	100%
	Schroders	213	189,491	733	957	100%
	Calamos	211	136,884	566	N/A	0%
	Veritas	184	61,149 (12,540 / 48,609)	284 (58 / 226)	678 (202/475)	100%
Fixed income (58.5% strategic allocation)	GSAM	63	16,046 (5,685 / 10,361)	286 (101 / 185)	746 (235/512)	25%
	Beach Point	347	296,614 (238,890 / 57,725)	864 (670 / 194)	1,388 (990/398)	84%
	CQS	196	1,115,772 (21,734 / 1,094,038)	544 (134 / 410)	385 (107/278)	68%
	Insight <sup>6</sup>	523	n/a	n/a	n/a	n/a
<b>Total assets analysed</b>		<b>2,191</b>	<b>2,491,465</b>			<b>59% coverage</b>
<b>Percentage of DB assets</b>		<b>63%</b>				<b>37% total assets</b>

Source: Investment Managers and Mercer calculations.

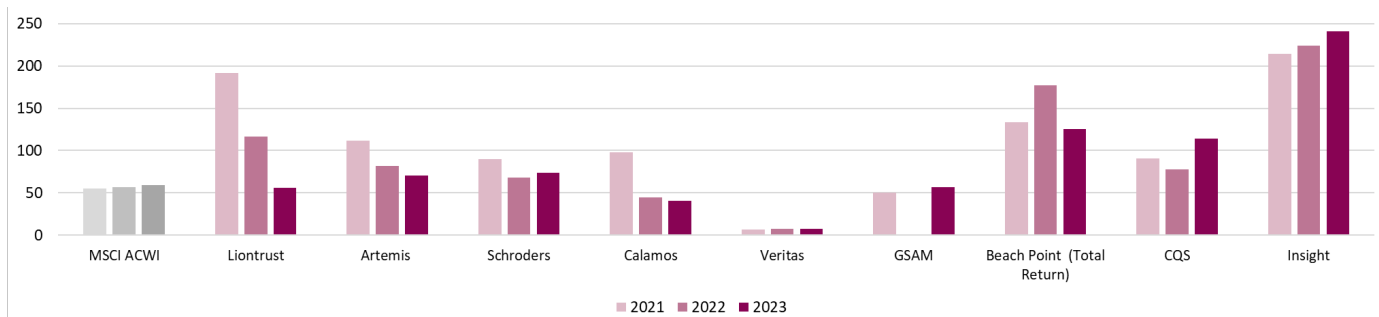
<sup>6</sup> As this mandate invests in UK Government Bonds the GHG emissions are based upon the annual UK GHG emission for 2022 and the total UK Government Debt as at 30 September 2023. WACI based upon purchasing power parity adjusted GDP estimate for the UK for 2022. Data coverage reflects the net gilt exposure of the portfolio. Insight currently do not report on scope 3 emissions.

## Carbon footprint

Given the Trustee’s climate related targets are relative to the carbon footprint metric the Trustee carries out additional monitoring of managers against a broad market equity index (the MSCI All Country World Index). This helps identify market trends and enables the Trustee to monitor their investment managers in context of these trends. Over the year to 30 September 2023, the Trustee makes the following observations in addition to those made above:

- The carbon footprint of most strategies reduced over the year to 30 September 2023, with the exception of Schroders, CQS, Insight and GSAM; the latter because of an exceptionally low figure last year due to trading activity on 30 September 2022, which resulted in the holding being predominantly cash on this day.
- The Insight metric relates to the UK’s annual greenhouse gas emissions and the total value of UK Government Debt in issuance. Over the period from 30 September 2021 the UK’s annual greenhouse gas emissions have marginally reduced. However, due to falls in the value of UK Government Debt the carbon footprint has increased.
- With the exception of Artemis and Schroders, the DB Section’s Equity managers have a lower carbon footprint than broad global equities (as measured by the MSCI ACWI index) in 2023.

Figure 15: DB Section carbon footprint summary as at 30 September 2023.



Source: Investment managers.

## Implied temperature rise

This is a forward-looking metric that considers the pledges, commitments and business strategy changes that underlying investee companies/issuers have made. It provides a prediction of the potential temperature rise over the rest of the century based on the activities of those companies and issuers. The metric illustrates the degree of portfolio alignment with the goals of the Paris Agreement (notably to limit warming to well below 2°C by the end of the century) and therefore the Trustee looks to present the results within this framework.

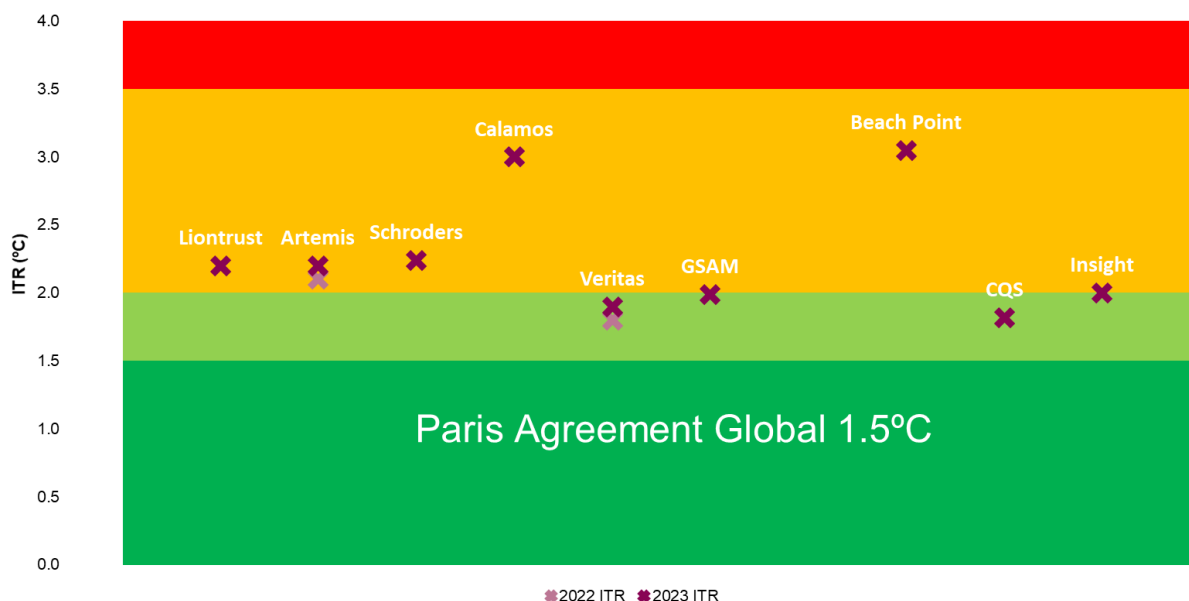
The majority of managers are now able to calculate an Implied Temperature Rise (ITR). The ITR ranges between 1.8°C and 3.1°C, reflecting underlying companies at different stages of transitioning towards a low carbon future but also a range of methodologies for computing ITR. Figure 16 below plots the 2022 and 2023 ITRs for the managers who were able to share ITR data. The Trustee makes the following observations:

- Data availability has increased over the year, with most managers now reporting ITR.
- The Calamos and Insight ITR metrics are unchanged between 2022 and 2023.

- The Artemis and Veritas ITR marginally increased between 2022 and 2023.
- None of the DB Sections ITR scores are currently consistent with a 1.5°C target, but Veritas, GSAM, CQS and Insight are consistent with a 2°C target.

There are currently multiple methodologies for calculating ITR and these can have variable results. We expect there to be greater consensus on methodologies over time, but it is important to be aware that the results can be materially different based on the methodology chosen.

Figure 16: DB Section ITR summary as at 30 September 2023



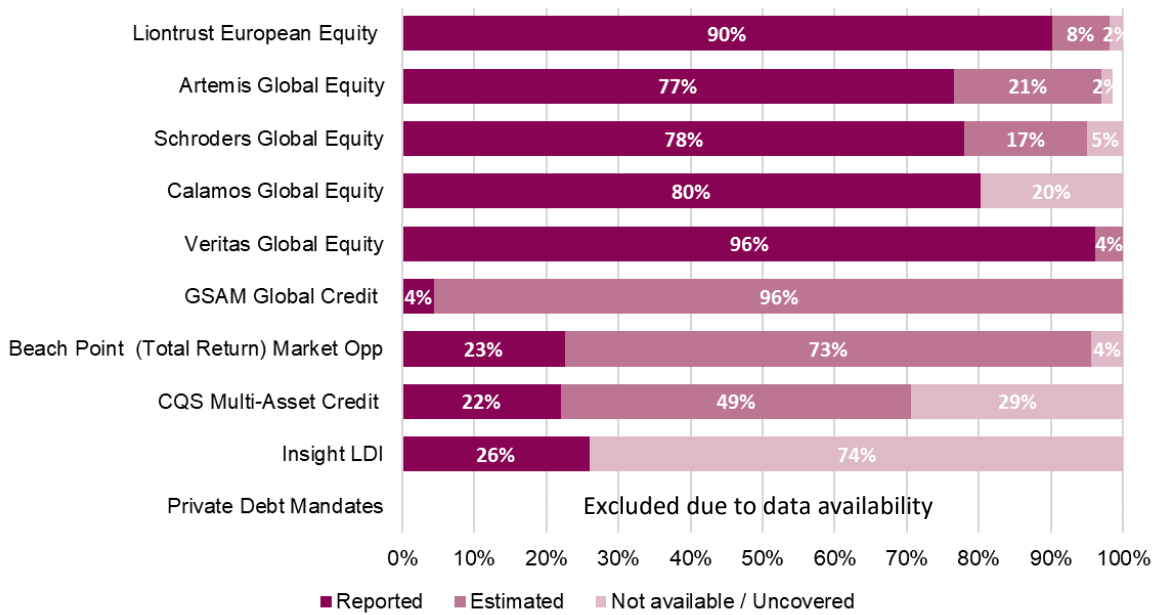
Source: Investment managers.

### Data quality

The Trustee monitors the development of data quality year on year and expects this to increase over time. The charts below show the data quality for those managers where quality is determined to be of sufficient value. The Trustee notes that:

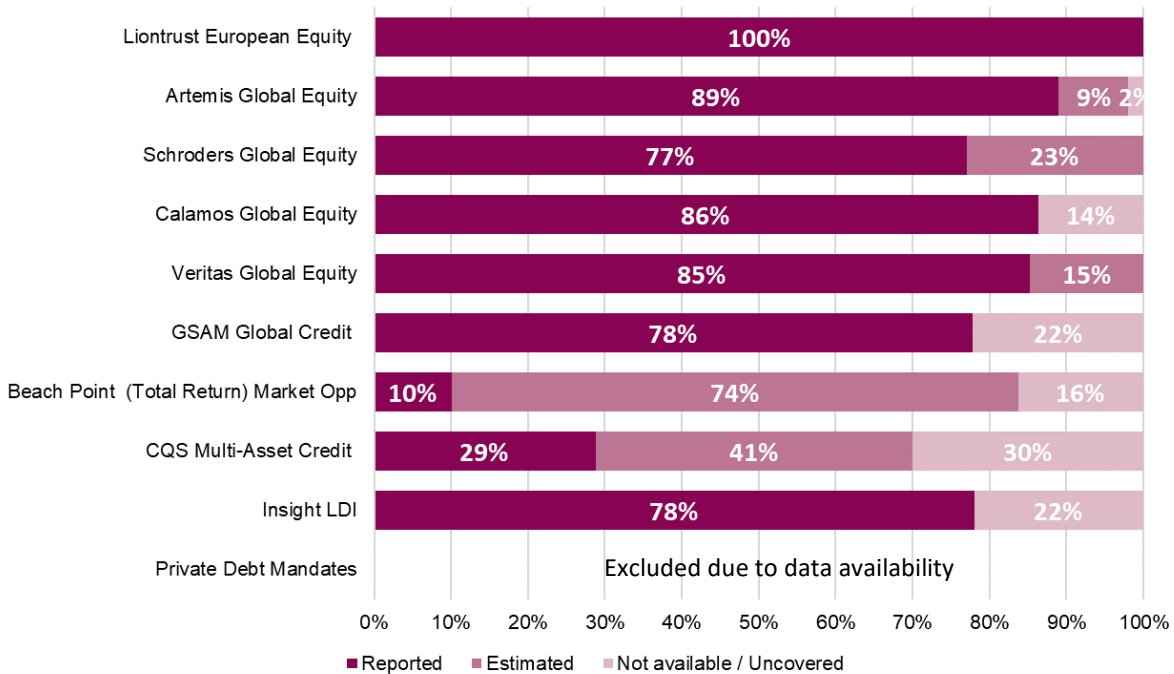
- Data quality for the Liability Driven Investment (LDI) mandate is based on the proportion of the gilt exposure that is fully funded (the LDI mandate is a strategy which aligns investment portfolios with future liabilities). This proportion has increased over the year and therefore data quality has improved.
- For the rest of the Scheme’s assets, data quality is mixed, with equity mandates having the largest proportion of reported data. On the other hand, only a limited number of Private Debt managers could provide up to date data. The Trustee considered the varied data provided and decided not to include the results in this years’ report.
- Overall, there has been a slight improvement in data reporting. Liontrust, Artemis, GSAM, CQS, and Insight have all increased their reported coverage while the proportion of data reported fell for Beach Point, Veritas and Schroders.

Figure 17: DB Section data quality as at 30 September 2022



Source: Investment managers.

Figure 18: DB Section data quality as at 30 September 2023



Source: Investment managers.

## Results - DC Section

The majority of the Scheme's DC assets are managed by AllianceBernstein in the TDF range, which represents 98% of the total DC Section assets. AllianceBernstein produces the agreed emissions-based metrics. This enables the Trustee to consider the carbon emissions data in a consistent manner across the DC mandates.

The Trustee is required to provide metrics data for all popular DC arrangements which are funds or Lifecycle arrangements that meet certain criteria; they either make up more than 10% of the total DC assets or are valued at over £100m. As noted previously, the Scheme now has two popular DC arrangement within the DC Section, however the metrics for all of the DC TDFs have been included within this report for complete analysis of members at different stages of the glidepath.

The DC TDF's are shown in Figures 19 and Figure 20. As at 30 September 2022, c.11% of the DC assets were held in the only popular arrangement at that time, the 2035-37 TDF. As at 30 September 2023, c.11% of the DC assets were held in the existing popular arrangement and c.10% of the DC assets were held in new popular arrangement, the 2038-2040 TDF.

Figure 19: Analysed Funds in the DC Section as at 30 September 2022

Vintage	Total Assets (£m)	% of total assets	Total greenhouse gas (GHG) emissions (tCo2e)	Carbon footprint (tCo2e/US \$M invested)	Weighted Average Carbon Intensity (tCo2e/US \$M revenue)	Implied temperature rise (°C)	Data Coverage
2011-2013	0.2	0.0%	10	64	83	2.2	41%
2014-2016	1.7	0.2%	109	64	84	2.2	41%
2017-2019	4.9	0.6%	315	65	86	2.2	42%
2020-2022	15	1.9%	999	67	90	2.2	43%
2023-2025	31.8	4.0%	2,188	69	94	2.2	47%
2026-2028	50.6	6.3%	3,654	73	103	2.3	56%
2029-2031	58.3	7.3%	4,569	79	112	2.3	66%
2032-2034	72.8	9.1%	5,757	79	114	2.3	72%
2035-2037	85.1	10.7%	6,817	80	116	2.3	80%
2038-2040	79.7	10.0%	6,307	78	115	2.3	87%
2041-2043	76.5	9.6%	5,861	75	112	2.3	92%
2044-2046	70.5	8.8%	5,246	73	110	2.3	94%
2047-2049	66.4	8.3%	4,943	73	110	2.3	94%
2050-2052	59.1	7.4%	4,403	73	110	2.3	94%
2053-2055	50.9	6.4%	3,707	73	110	2.3	94%
2056-2058	34.9	4.4%	2,545	73	110	2.3	94%
2059-2061	17.4	2.2%	1,264	73	110	2.3	94%
2062-2064	5.8	0.7%	425	73	110	2.3	94%
2065-2067	0.6	0.1%	46	73	110	2.3	94%
2068-2070	0.0	0.0%	3	73	110	2.3	94%
2071-2073	0.0	0.0%	0	73	110	2.3	94%
<b>Total</b>	<b>782.2</b>	<b>98.0%</b>	<b>59,159</b>				

Source: AllianceBernstein

Figure 20: Analysed Funds in the DC Section as at 30 September 2023 – Scope 1 and 2

Vintage	Total Assets (£m)	% of total assets	Total greenhouse gas (GHG) emissions (tCo2e)	Carbon footprint (tCo2e/US \$M invested)	Weighted Average Carbon Intensity (tCo2e/US \$M revenue)	Implied temperature rise (°C)	Data Coverage
2011-2013	0.2	0.0%	2	53	71	2.0	40%
2014-2016	1.6	0.2%	20	53	72	2.0	39%
2017-2019	4.5	0.5%	56	54	73	2.0	39%
2020-2022	11.5	1.3%	150	55	75	2.0	40%
2023-2025	30.2	3.3%	419	56	77	2.0	42%
2026-2028	49.6	5.5%	843	58	81	2.0	50%
2029-2031	60.7	6.7%	1180	62	86	2.0	55%
2032-2034	77.6	8.6%	1673	63	87	2.0	61%
2035-2037	95.6	10.6%	2290	64	88	2.0	67%
2038-2040	91.0	10.1%	2486	65	89	2.1	75%
2041-2043	89.6	9.9%	2848	66	89	2.1	86%
2044-2046	82.4	9.1%	2924	67	89	2.1	95%
2047-2049	79.1	8.8%	2806	67	89	2.1	95%
2050-2052	70.6	7.8%	2504	67	89	2.1	95%
2053-2055	61.9	6.9%	2197	67	89	2.1	95%
2056-2058	43.5	4.8%	1542	67	89	2.1	95%
2059-2061	23.1	2.6%	819	67	89	2.1	95%
2062-2064	9.7	1.1%	345	67	89	2.1	95%
2065-2067	1.7	0.2%	61	67	89	2.1	95%
2068-2070	0.1	0.0%	5	67	89	2.1	95%
2071-2073	0.0	0.0%	5	67	89	2.1	95%
<b>Total</b>	<b>884.2</b>	<b>97.9%</b>	<b>25,176</b>				

Source: AllianceBernstein

Over the year to 30 September 2023, data coverage fell for TDFs up until 2043, while it increased for all TDFs after this date.

Carbon emission and intensity measures fell for all TDFs between 2022 and 2023. These reductions were driven by two primary effects: investment policy actions taken directly within the portfolios, and the decarbonisation of the broad investment universe.

Within the portfolios, an allocation to Climate Transition Equities is held. This investment allocation employs a methodology that seeks to reduce the carbon intensity compared to a broad corporate investment universe and reduce the weighted average carbon intensity by 7% each year. Over the year to 30 September 2023, this allocation continued to see a reduction in carbon intensity. The portfolios also continue to employ positive screening (e.g. tilt toward companies with better management of environment, social, and governance factors) and negative screening (e.g. removal of corporates associated with thermal coal). These that have continued to focus investments towards less carbon-intensive companies and away from the most carbon-intensive.

Implied temperature rise decreased across all TDF's due to a fall in carbon intensity. It is worth noting that the high levels of inflation over the course of 2023 would have, all else been equity, reduced the reported carbon emissions metric.

In this second TCFD report the Trustee has also included Scope 3 emissions, which are provided below. The Trustee notes that AllianceBernstein were unable to provide data quality for Scope 3 emissions since the MSCI BarraOne system that is used to report metrics currently does not have the functionality to provide this data. This is being investigated with MSCI.

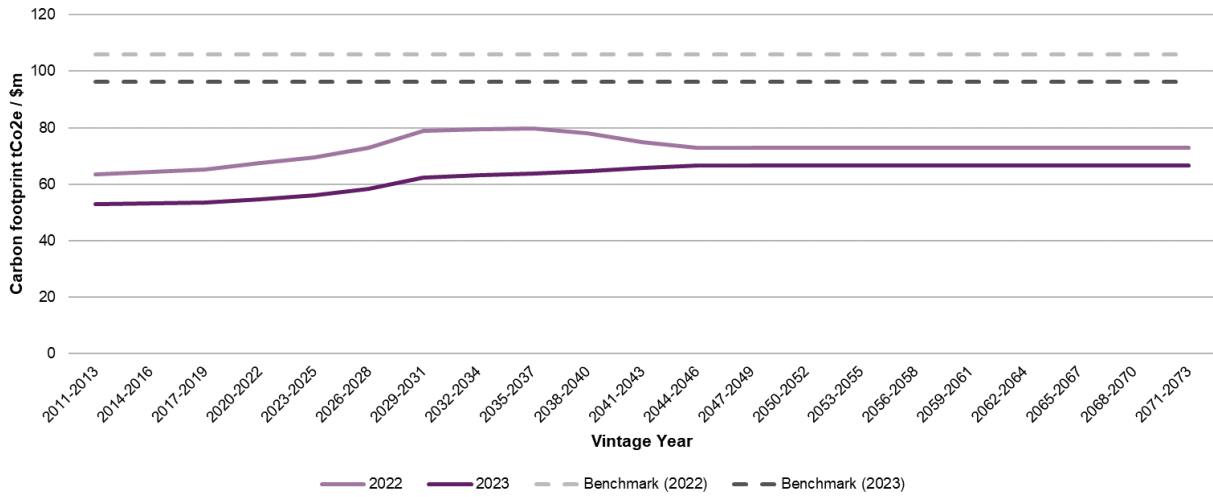
Figure 21: Analysed Funds in the DC Section as at 30 September 2023 – Scope 3

Vintage	Total Assets (£m)	% of total assets	Total greenhouse gas (GHG) emissions (tCo2e)	Carbon footprint (tCo2e/US \$M invested)
2011-2013	0.2	0.0%	20	543
2014-2016	1.6	0.2%	184	551
2017-2019	4.5	0.5%	529	567
2020-2022	11.5	1.3%	1,383	568
2023-2025	30.2	3.3%	3,829	576
2026-2028	49.6	5.5%	7,678	600
2029-2031	60.7	6.7%	10,222	613
2032-2034	77.6	8.6%	14,345	620
2035-2037	95.6	10.6%	19,695	626
2038-2040	91.0	10.1%	21,439	635
2041-2043	89.6	9.9%	24,544	639
2044-2046	82.4	9.1%	25,179	643
2047-2049	79.1	8.8%	24,169	643
2050-2052	70.6	7.8%	21,566	643
2053-2055	61.9	6.9%	18,923	643
2056-2058	43.5	4.8%	13,281	643
2059-2061	23.1	2.6%	7,052	643
2062-2064	9.7	1.1%	2,973	643
2065-2067	1.7	0.2%	525	643
2068-2070	0.1	0.0%	41	643
2071-2073	0.0	0.0%	41	643
<b>Total</b>	<b>884.2</b>	<b>97.9%</b>	<b>217,620</b>	

Source: AllianceBernstein

**Carbon footprint**

Figure 22: DC Section carbon footprint evolution



Source: AllianceBernstein

**Data quality**

Figure 23: DC Section data quality as at 30 September 2022

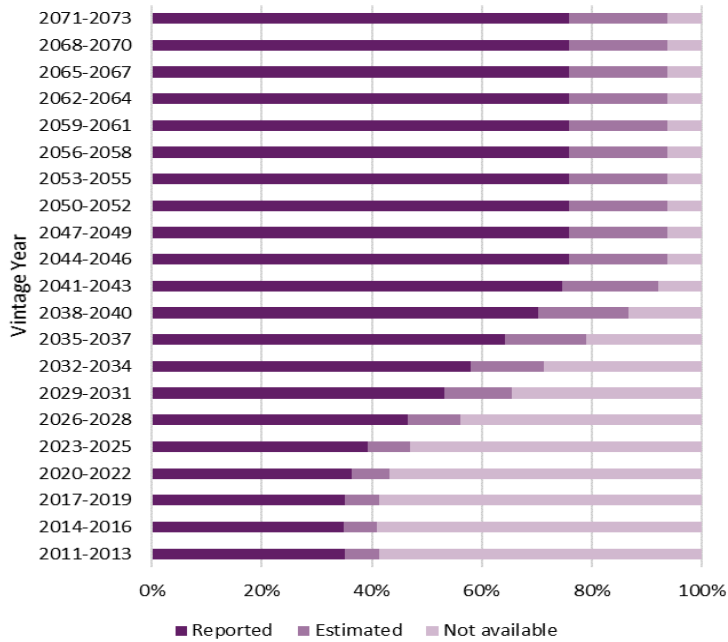
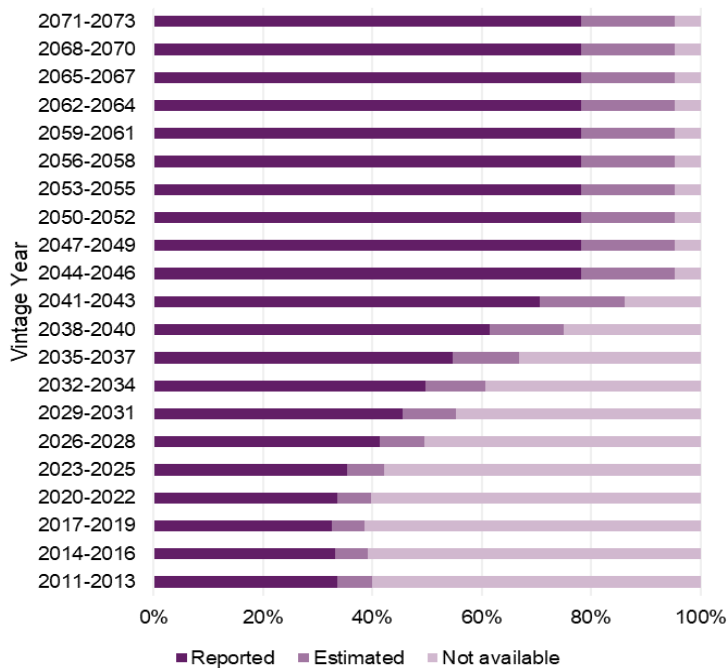


Figure 24: DC Section data quality as at 30 September 2023



Source: AllianceBernstein

Data quality is broadly similar across the two years but reported data is marginally higher in 2022 at earlier vintages. Data quality decreases as the vintages mature given the fall in equity allocation and higher allocation to bonds.

## Targets

The Trustee has set the following interim climate targets, covering the Scheme's whole Equity portfolio and the Fixed Income GSAM portfolio for the DB Section, as well as the TDFs for the DC Section:

- Reduce greenhouse gas emissions (Scope 1 and 2) for the aggregate DB Equity portfolio by 40% or more by 30 September 2030.
- Reduce greenhouse gas emissions (Scope 1 and 2) for the DB Fixed Income GSAM portfolio<sup>7</sup> by 50% or more by 30 September 2030.
- Reduce greenhouse gas emissions (Scope 1 and 2) for all DC TDFs by 20% or more by 30 September 2030.

Each target is measured against the carbon footprint intensity metric with a 30 September 2021 baseline.

As noted above, the targets are designed to be broadly aligned with the Paris Climate Change Agreement.

In relation to the DB Section, targets have been put in place where the underlying data is considered of sufficient quality, the threshold for which has been determined as more than 75% of the underlying data being directly reported (as opposed to estimated or not available). Although data quality has increased for those managers not currently covered by targets the Trustee does not consider it yet at sufficient quality to extend targets to these managers. The Trustee will engage with these managers to consider the feasibility of setting climate targets in future. Targets have been set for all DC TDFs, as this is consistent with the broader approach being taken by AllianceBernstein, who manage the TDFs.

The targets cover 32% of the assets for the DB Section and 98% of assets for the DC Section.

The LDI portfolio is excluded from the targets for the DB Section. This portfolio predominantly holds UK Government bonds, which are an integral part of the Trustee's wider risk management approach. The Trustee notes that the UK Government is targeting being net zero by 2050.

The Trustee recognises that due to the pooled fund nature of certain mandates, it cannot directly influence portfolio holdings, but instead will seek to engage with the investment managers.

The Trustee reviews its progress against the above targets at Trustee meetings at least annually and did so at the March 2024 Trustee meeting. The updated metric data and progress update will be reviewed and discussed at an ISC meeting, ahead of any Trustee review.

Over the two years to 30 September 2023, the Trustee and the respective investment managers made the following progress against their climate targets:

- 54% carbon footprint (Scope 1 & 2) decrease for the whole DB Equity portfolio.
- 14% carbon footprint (Scope 1 & 2) increase for the DB Fixed Income GSAM portfolio.<sup>7</sup>
- 19% carbon footprint (Scope 1 & 2) decrease for all the DC TDFs.

The Trustee notes that the carbon footprint reduction for the whole DB Equity portfolio has been achieved ahead of the 2030 target, with Liontrust in particular achieving significant carbon footprint reductions over the 2-year period. Whilst this is promising, the Trustee notes that it is targeting consistent reductions in carbon

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<sup>7</sup> A target is only set for the Fixed Income GSAM portfolio at this stage due to data quality issues for the other Fixed Income mandates.

footprint and that data quality in this area is continuously evolving and improving. We may therefore see fluctuations in the metric data in early years. As such, the Trustee intends to maintain the target of reducing carbon footprint by 40% by 2030. The Trustee is looking for this reduction to persist over the longer-term before re-considering the target, especially as a fall in carbon footprint metric could be a result of an increase in the enterprise value of the underlying companies invested in.

In addition, the DC TDFs target has almost been achieved and is on-track to meet the 2030 target timeframe. For similar reasons the Trustee will not look to update this target immediately after it has been met but will monitor the appropriateness of it and look to update it if it is consistently achieved.

A wide range of factors will affect whether the Trustee achieves its targets and the Trustee has varying degrees of control over these factors. Ultimately achieving the desired level of decarbonisation will depend on global economies successfully decarbonising as a whole. Despite factors outside of the Trustee's control, the Trustee's intention is to meet its targets and it has engaged with its investment managers to make clear its requirements. Currently, the targets are not formally included in the manager's investment guidelines, but the Trustee may consider incorporating them in the future. Where targets have been set, the Trustee will review the managers' progress against their respective targets at least annually and will engage with the managers accordingly, should there be any progress concerns.

## Summary and Next Steps

### Key Actions taken over year to 5 April 2024

The Trustee recognises that long-term sustainability issues, particularly climate change, present risks and opportunities that increasingly require explicit consideration. As such, the Trustee over the year has, amongst other things:

- Continued to report on the five climate metrics chosen, covering 63% of the Scheme’s DB and 98% of the Scheme’s DC assets.
- Included Scope 3 emissions data from managers into DB and DC reporting where possible.
- Collected climate data from private debt managers where possible.

### Summary of results

#### Metrics

In carrying out this work the Trustee has identified that progress has been made towards their greenhouse gas emissions target for the DB Equity and DC Target Date Funds, as set out in the table below.

Figure 25: Summary of greenhouse gas emissions target and reduction to 30 September 2023

Portfolio	Greenhouse gas emissions target <sup>8</sup>	Greenhouse gas emission reduction to 30 September 2023 <sup>9</sup>
DB Equity	40% reduction	54%
DB Fixed Income GSAM portfolio	50% reduction	-14%
DC Target Date Funds	20% reduction	19%

Source: Investment managers.

The Trustee does note that, none of the DB managers were aligned with a 1.5oC warming scenario but the majority of the DB managers had a lower carbon footprint than broad global equities. The DC Target Date Funds had a lower carbon footprint across all vintages as at 30 September 2023, following a significant reduction in this metric over the year for earlier vintages.

Data quality improved over the year but continues to be low within private markets.

### Climate Scenario Analysis

The DB investment strategy demonstrated robustness with respect to the potential impact of climate change across the scenarios and timeperiods considered. The Scheme’s DB assets were projected to be significantly in excess of the DB liabilities across all scenarios and timeperiods considered. The Trustee notes this is largely due to the strong starting funding level and the future transition to the low-dependency portfolio, which has lower exposure to equity and other growth asset classes that typically have a higher exposure to climate risk. As the climate scenario analysis performed in 2023 reflected the transition to the low-dependency portfolio, the

<sup>8</sup> By 2030 relative to the 30 September 2021 baseline

<sup>9</sup> Relative to the 30 September 2021 baseline

Trustee has decided not to update the analysis as it continues to reflect the current and future strategy of the Scheme.

The Scheme's DC assets are expected to be impacted more by climate risk due to the higher allocation to growth assets (compared to the DB assets). In particular, listed equity is materially exposed to physical risks under a Failed Transition. This can be seen by the material impact of the Failed Transition on later TDF vintages over longer time periods. The TDFs include an allocation to sustainable investments which is expected to provide some protection from these risks. Climate risk is considered, amongst other risks and in accordance with the Scheme's SIP, in making changes to the investment strategy decisions. In the coming year, the Trustee will consider updating the climate scenario analysis to reflect the investment strategy changes scheduled for the DC TDFs and will present the results of any updated analysis in their 2025 TCFD report.

#### **Actions over the coming year**

The Trustee intends, during the next reporting period, to continue to monitor and consider climate risk and to identify any opportunities climate change may bring to the Scheme's investment and/or DB funding strategies as applicable. In light of this the below key actions are planned over the course of the year to 5 April 2025:

- **Monitoring:** The Trustee will continue to assess the carbon exposure of the Scheme's investments against the greenhouse gas emissions targets set. Monitoring will also continue to be carried out on the wider ESG credentials of the Scheme's investment managers on an ongoing basis.
- **Climate Scenario Modelling:** In order to assess the impact of the investment strategy changes scheduled to be made over the year for the DC TDFs, the Trustee will consider updating the DC climate scenario modelling. Results of this updated modelling will be presented in the 2025 TCFD report.
- **Data quality:** The Trustee will continue to engage with managers, in particular within the DB Private Debt portfolio in order to improve data quality. The Trustee aims to report on this data and consider the scope for setting appropriately informed climate metric targets for the portions of the Scheme's assets where this is not currently carried out once the data quality is sufficiently high.
- **Stewardship and engagement:** Carry out further work with a view to developing the Trustee's key engagement priorities and engage with selected relevant managers on these priorities and how they are incorporated into their voting and engagement policies and practices.
- **Training:** Ongoing training and review of skills in conjunction with the investment adviser, to ensure the Trustee is equipped with sufficient knowledge of developments around climate change risk and regulatory changes.

The Trustee expects this report, and the analysis and data contained therein, to continue to evolve as data availability improves, and as best practice continues to develop.

## Appendix 1: Assumptions, Limitations and Further Detail

### Scenario Analysis Narratives

	4.0°C Scenario – Failed Transition	1.5°C Scenario – Rapid Transition	<2.0°C Scenario – Orderly Transition
<b>Summary</b>	The world fails to meet the Paris Agreement goals and global warming reaches 4.3°C above pre-industrial levels by 2100. Physical climate impacts cause large reductions in economic productivity and increasing impacts from extreme weather events.	Sudden divestments in 2026 to align portfolios to the Paris Agreement goals have disruptive effects on financial markets with sudden repricing followed by stranded assets and a sentiment shock.	Political and social organizations act quickly and predictably to implement the recommendations of the Paris Agreement to limit global warming to below 2°C.
<b>Temperature change</b>	Average temperature increase of >4°C by 2100.	Average temperature increase stabilises at 1.5°C around 2050.	This scenario includes additional economic damage consistent with 1.8°C of average temperature rise – peaking in 2070.
<b>Cumulative emissions</b>	5,127 GtCO <sub>2</sub> (2020-2100)	416 GtCO <sub>2</sub> (2020-2100)	The additional damage under this scenario could be associated with further human emissions or greater impacts from feedback loops and tipping points.
<b>Key policy &amp; tech assumptions</b>	Existing policy regimes are continued with the same level of ambition.	An ambitious policy regime is pursued to encourage greater decarbonisation of the electricity sector and to reduce emissions across all sectors of the economy. Higher carbon prices, larger investment in energy efficiency and faster phase out of coal-fired power generation. This is earlier and more effective under a Rapid Transition than the Orderly Transition, which allows for less investment in energy efficiency and bioenergy with carbon capture and storage.	
<b>Financial climate modelling</b>	Physical risks are priced in two different periods: 2026-2030 (risks of first 40 years) and 2036-2040 (risks of 40-80 years).	Pricing in of transition and physical risks of the coming 40 years occurs within one year in 2025. As a result of this aggressive market correction, a confidence shock to the financial system takes place in the same year.	Pricing in of transition and physical risks associated with 1.5°C up to 2050 takes place over the first 4 years. The additional damage, beyond 1.5°C, impacts asset performance on a year-by-year basis with no advance pricing in.
<b>Physical risks considered</b>	Physical risks are regionally differentiated, consider variation in expected temperature increase per region and increase dramatically with rising average global temperature. Physical risks are built up from: Gradual physical impacts associated with rising temperature (agricultural, labour, and industrial productivity losses) Economic impacts from climate-related extreme weather events Current modelling does not capture environmental tipping points or knock-on effects (e.g., migration and conflict).		

## Capital market assumptions – cumulative climate return impact

Asset Class	Failed Transition			Rapid Transition			Orderly Transition		
	30/06/2022								
	5 Years	15 Years	40 Years	5 Years	15 Years	40 Years	5 Years	15 Years	40 Years
MSCI World Equity	3.1%	-8.9%	-38.1%	-12.0%	-10.4%	-7.0%	-3.3%	-4.1%	-10.3%
MSCI Paris Aligned Equity	1.6%	-11.0%	-39.8%	-5.9%	-3.2%	1.4%	-2.9%	-2.8%	-8.1%
Europe Equity	2.4%	-8.8%	-35.9%	-12.5%	-10.5%	-7.2%	-2.1%	-2.3%	-6.6%
Multi asset credit	-0.3%	-2.0%	-1.5%	-3.1%	-4.7%	-5.4%	0.0%	0.7%	-1.4%
Global IG Credit	-0.2%	-2.0%	-2.1%	-1.5%	-1.8%	-2.4%	0.1%	1.6%	-1.3%
UK Sovereign Bonds	0.3%	0.3%	-0.8%	0.2%	-0.2%	1.0%	-0.4%	0.1%	0.3%
Global Senior Private Debt	-0.4%	-2.4%	-4.4%	-2.1%	-1.6%	-2.6%	0.5%	1.7%	-2.9%
Global Private Debt	0.1%	-2.9%	-2.8%	-6.9%	-6.7%	-8.4%	0.3%	1.7%	-3.7%
Cash	-0.3%	-2.3%	-5.7%	0.2%	2.0%	2.0%	0.3%	2.0%	-0.9%
UK Real Estate	0.8%	-11.9%	-38.9%	-6.3%	-3.4%	0.9%	-1.7%	-0.8%	-4.5%

## Capital market assumptions – annualised baseline returns

The baseline represents what we are assuming the market is currently pricing in. The baseline includes a 10% weight to a **Failed Transition**, 40% weight to an **Orderly Transition**, 10% to a **Rapid Transition** and 40% to a range of **low impact scenarios**.

Asset Class	30/06/2022		
	5 Years	15 Years	40 Years
MSCI World Equity	8.9%	9.1%	9.0%
MSCI Paris Aligned Equity	8.9%	9.1%	9.0%
Europe Equity	6.9%	7.4%	7.7%
Multi asset credit	9.9%	9.5%	8.9%
Global Investment Grade Credit	5.5%	5.3%	5.1%
UK Sovereign Bonds	4.6%	4.7%	3.8%
Global Senior Private Debt	9.1%	8.6%	7.3%
Global Private Debt	10.7%	10.1%	8.7%
Cash	4.2%	4.4%	4.1%
UK Real Estate	7.8%	7.9%	7.0%

## Capital market assumptions – annualised scenario returns for the DB Section

	Annualised returns		
	Short term (5 Years)	Medium term (15 years)	Long term (25 years)
<b>Baseline</b>	7.7%	7.2%	7.1%
<b>Rapid Transition</b>	7.0%	7.0%	7.0%
<b>Orderly Transition</b>	7.5%	7.2%	7.1%
<b>Failed Transition</b>	7.9%	7.0%	6.8%

### Limitations

Climate scenario modelling is a complex process and the Trustee recognises that there will inevitably be limitations in the modelling. In particular:

1. The further into the future you go, the less reliable any quantitative modelling will be.
2. Looking at average asset class returns over multi-decade timeframes leads to small impacts. The results are potentially significantly underestimated.
3. There is a reasonable likelihood that physical impacts are grossly underestimated. Feedback loops or 'tipping points', like permafrost melting, are challenging to model particularly around the timing of such an event and the speed at which it could accelerate.
4. Financial stability and insurance 'breakdown' is not modelled. A systemic failure may be caused by either an 'uninsurable' 4oC physical environment, or due to the scale of mitigation and adaption required to avoid material warming of the planet.
5. Most adaptation costs and social factors are not priced into the models. These include population health and climate related migration.

The above assumptions may be updated from time to time. The Trustee will consider additional scenario analysis as and when appropriate.

Most metrics shown in this report are not representative of 100% of assets within a certain arrangement but are based on the proportion of assets for which climate metrics are available (the "coverage"). Coverage figures may vary depending on the specific climate metric shown.

## Appendix 2: Climate Change Glossary

**Carbon footprint:** The amount of carbon dioxide (or other greenhouse gasses) released into the atmosphere as a result of the activities of a particular individual, organisation or community. Carbon footprint is calculated for each company as (Scope 1 and 2 carbon emissions / US \$m investments). See also Scope 1, 2, 3 emissions and Weighted Average Carbon Intensity (WACI).

**Carbon intensity:** The amount of emissions of carbon dioxide (or other greenhouse gasses) released per unit of another variable such as revenue, gross domestic product (GDP), per US \$1million invested etc. See also Weighted Average Carbon Intensity (WACI).

**Carbon price:** The price for avoided or released carbon dioxide (CO<sub>2</sub>) or CO<sub>2</sub>-equivalent emissions. This may refer to the rate of a carbon tax, or the price of emission permits. In many models that are used to assess the economic costs of mitigation, carbon prices are used as a proxy to represent the level of effort in mitigation policies.

**Carbon neutrality:** Achieved by offsetting emissions by paying for credits (usually certified via new forestry equivalents that provide carbon removal). Carbon neutrality is similar to net zero targeting – though the latter requires actual emissions reductions to meet targets (rather than purchasing offsets). See also Net Zero CO<sub>2</sub> emissions.

**Decarbonisation:** The process by which countries, individuals or other entities aim to achieve zero fossil carbon existence. Typically refers to a reduction of the carbon emissions associated with energy, industry and transport.

**Global warming:** The estimated increase in global mean surface temperature expressed relative to pre-industrial levels unless otherwise specified. See also Pre-industrial.

**Greenhouse gases:** Gases in the planet’s atmosphere which trap heat. They let sunlight pass through the atmosphere but prevent heat from leaving the atmosphere. Greenhouse gases include: Carbon Dioxide (CO<sub>2</sub>), Methane (CH<sub>4</sub>), Nitrous Oxide (N<sub>2</sub>O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur Hexafluoride (SF<sub>6</sub>), Nitrogen Trifluoride (NF<sub>3</sub>).

**Inevitable policy response:** A scenario that expects an acceleration of climate-related policy announcements in 2023–2025, which has been supported by the Principles for Responsible Investment (PRI).

**Mitigation (of climate change):** A human intervention to reduce emissions or increase the capacity of natural or artificial systems to absorb and store greenhouse gases.

**Mitigation strategies:** In climate policy, mitigation strategies are technologies, processes or practices that contribute to mitigation, for example, renewable energy (RE) technologies, waste minimization processes and public transport commuting practices.

**Net zero greenhouse gas emissions:** Net zero greenhouse gas emissions (represented as a CO<sub>2</sub> equivalent, or CO<sub>2</sub>e) are achieved when emissions are balanced globally by removals over a specified period. The term “net zero” is also typically associated with the 2050 date or earlier, as this is aligned with the scientific recommendations to achieve a 1.5°C scenario. See also Carbon neutrality (which differs slightly).

**Paris Agreement:** The Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC) was adopted on December 2015 in Paris, at the 21st session of the Conference of the Parties (COP) to the UNFCCC. The agreement, adopted by 196 Parties to the UNFCCC, entered into force on 4 November 2016 and as of May 2018 had 195 Signatories and was ratified by 177 Parties. One of the goals of the Paris Agreement is “Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels”, recognising that this would significantly reduce the risks and impacts of climate change. Additionally, the Agreement aims to strengthen the ability of countries to deal with the impacts of climate change.

**Physical risks:** Dangers or perils related to the physical or natural environment that pose a threat to physical assets e.g. buildings, equipment and people. These are typically grouped into the impact of natural catastrophes (for instance sea level rise, flooding, wildfires, and hurricanes) and resource availability (particularly water). See also Transition risks.

**Pre-industrial:** The multi-century period prior to the onset of large-scale industrial activity around 1750. The reference period 1850–1900 is used to approximate pre-industrial global mean surface temperature.

**Principles for Responsible Investment (PRI):** Non-profit organisation, which encourages investors to use responsible investment to enhance returns and better manage risks. It engages with global policymakers and is supported by, not but part of, the United Nations. It has six Principles for Responsible Investment that offer a menu of possible actions for incorporating ESG issues into investment practice.

**Scope 1, 2, 3 emissions:** Scope 1 emissions are direct emissions from owned or controlled sources. Scope 2 emissions are indirect emissions from the generation of purchased energy. Scope 3 emissions are all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

**Transition risks:** Risks from policy changes, reputational impacts and shifts in market preferences, norms and technology as the economy moves to a low carbon approach. See also Physical risks.

**Weighted average carbon intensity (WACI):** The carbon intensity of a portfolio, weighted by the proportion of each constituent in the portfolio. Carbon intensity is calculated for each company as (Scope 1 and 2 carbon emissions / US \$m revenue). See also Carbon footprint.

## Important Notices from Data Providers

### **Mercer**

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Data is derived from MSCI Carbon Analytic reports.

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### **Schroders**

The calculation methodology is in-line with TCFD recommendations and principal adverse indicators under SFDR’ and also include Schroders in the data source list.

### **Calamos**

Data provided for the Associated British Foods plc Global Opportunities portfolio, managed on a discretionary basis by Calamos Advisors LLC, is attributable to ISS ESG, the sustainable investing arm of Institutional Shareholder Services.

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### **GSAM**

MSCI ESG Research collects carbon emissions (greenhouse gas emissions) data for the companies in their coverage universe once per year from most recent corporate sources, including Annual Reports, Corporate Social Responsibility Reports or websites. In addition, MSCI ESG Research uses the carbon emissions data reported through CDP (formerly the Carbon Disclosure Project) or government databases when reported data is not available through direct corporate disclosure. When companies do not disclose data, MSCI ESG Research uses proprietary methodologies to estimate carbon emissions.

Data has been scaled up to cover 100% of the portfolio, i.e. metrics are market value weighted over only the proportion of the portfolio that has available data.

All ESG data factors are provided by third-party data providers, unless otherwise noted.

**Beach Point**

There can be no assurance that CO2-related goals and/or objectives will be achieved. Beach Point's ability to influence credit investments may be more limited, while the availability of ESG data / disclosure may also be reduced relative to publicly listed securities. In addition, due to the nature of the investments typically held in client portfolios, Beach Point generally has limited ability, if any, to influence and control the integration of material ESG factors by an issuer. Furthermore, Beach Point may have limited ability to conduct extensive ESG-related due diligence in connection with investments.

**CQS**

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CQS Disclaimer: By way of disclaimer, please note that the Weighted Average Carbon Intensity ("WACI") is estimated using Scope 1 & 2 available disclosures or proxy estimates based on comparative data from MSCI. For proxy estimates, we apply a waterfall approach which requires a minimum of 10 issuers within the proxy estimate group. If there are not 10 issuers in the proxy estimate group, it changes to a broader category group to increase the number of comparable issuers and continues moving to a broader group until a minimum group size of 10 issuers are obtained or 'sector' level is reached. The order is sub-industry first, then industry, then industry group, then finally sector. Please note that the Carbon Metrics do not include hedges for efficient portfolio management purposes.

**Insight**

Carbon emissions data based off provisional UK emissions sourced from the UK Government; total UK Debt sourced from the UK Debt Management Office and converted to market value by Insight; and the proportion of funded gilt exposure within the ABF portfolio.

Implied temperature rise based on analysis by Germanwatch and Climate Action Tracker on the UK's ability to hit net zero.

## **AllianceBernstein**

For illustrative purposes only. Historical analyses do not guarantee future results.

Carbon metrics are based on most recently reported or estimated scope 1 + 2 greenhouse gas emissions and do not include estimates for scope 3 emissions. Scope 3 emissions include indirect emissions resulting from activities such as business travel, distribution of products by third parties, and downstream use of a company's products (i.e. by customers). Data availability and quality with respect to scope 3 emissions is currently poor. Total carbon is measured in metric tons of CO<sub>2</sub>e. Weighted Average carbon intensity is measured as tons CO<sub>2</sub>e/USD Millions of Sales and applied to corporate holdings only. Currently, government (sovereigns) data is not available to us via MSCI BarraOne, which is the system used for the metrics. This is being investigated with MSCI in order to improve reporting for future years.

The comparator we use is the MSCI All Country World Index, which represents a broad opportunity set for investing in a globally diverse universe of large and medium sized corporates. This comparator has been selected to reflect the wider coverage and range of corporate ESG measures, as well as the role of equities across the entire TDF glidepath.