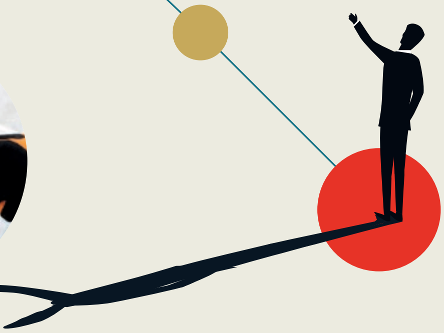
The ITB Pension Funds

Climate Change Report

Year Ending 31 March 2023



INTRODUCTION FROM NEWELL MCGUINESS, CHAIR, THE ITB PENSION FUNDS

Climate change continues to be a real and present issue affecting our lives. I am sure it is a topic of concern for many of the Funds' members, so I am pleased to publish this second annual report which provides detailed information about the Trustee's activities in this area.

The ITB Pension Funds (the "Funds") Trustee considers environmental, social and governance factors when taking decisions on the management of the Funds, and this includes consideration of climate change and the impact it could have on the smooth-running of the Funds. Climate change will have significant effects on our society, economy and financial system over the coming years and decades. It is important that we take appropriate steps to protect the Funds from these effects, as far as we can.

Climate change reporting is a legal requirement

This is the Funds' second Climate Change Report, and it follows the relevant legislation and guidance, most importantly the disclosures recommended by the Task Force on Climate-Related Financial Disclosures (TCFD).

Understanding the risks and opportunities posed by climate change

We continue to increase our understanding of how climate change might affect the Funds and make sure that we are managing the risks and opportunities, with the aim of achieving better financial outcomes for our members. We have been supported in this by the Funds' advisers, as well as the investment managers who invest the Funds' assets on our behalf. The Trustee has reviewed the set of Climate Related Risk Beliefs during the year, and they are set out in Appendix 1. The beliefs are the background against which decisions about investment strategy can be made. We have set out clear roles and responsibilities, so that climate change is considered appropriately whenever decisions about the Funds are taken. We have established an Investment Governance Working Party, under the leadership of one of the Trustee Directors, to ensure amongst other things compliance with the pension scheme climate related risk guidance and that the Funds are taking the most appropriate approach to managing climate risks in relation to the circumstances of the Funds.

The risks and opportunities faced by the Funds

The Funds face risks and opportunities from both the physical effects of changes in the climate itself – for example, more frequent storms, rising temperatures and changing rainfall patterns – and from the effects of transitioning to a lower carbon economy to limit the extent of climate change – for example, government policies to restrict or discourage the use of fossil fuels, technological advances in renewable energy, and increased customer demand for "green" products.

We have reviewed scenario modelling carried out in the previous year, to ensure our understanding of how the Funds might be affected by these issues remains valid. The Funds' Defined Benefit ("DB") sections mostly invest in low-risk assets which should be resilient to climate change. Nonetheless, the Trustee has identified that climate change could result in lower investment returns, especially in the Defined Contribution ("DC") Section which invests largely in equity funds, and higher volatility in investment markets. This highlights the importance of appointing investment managers who have the right skills and processes to properly allow for climate change in their decisions.

Managing our investment risk

To help mitigate the risks posed by climate change, the Trustee invests the DC default option's growth phase in a low carbon equity fund. This fund has lower exposures to companies with high levels of carbon dioxide emissions and may not have any exposure at all to the worst polluting companies (e.g. coal miners). Its investment objective is to reduce carbon emissions exposure by 70% compared to a standard market weighted equity index benchmark, and over time to reduce the exposure further. During the year the Trustee also took the same action with the equity allocations within the DB investment strategies. The Open Fund Defined Benefit (DB) Section invested in the same fund used in the DC default fund, whilst the Closed Fund, which is a DB scheme, invests in an equity fund that aims to provide a return by closely tracking the performance of the MSCI World Low Carbon Target Reduced Fossil Fuel Select Index.

The Working Party assesses the Funds' investment managers' approach to managing climate-related risks. It generally finds that they are all taking action to address the potential impact of these risks on our investments, although all have room to improve. This is unsurprising because this is a relatively new and challenging area for most investors. The Trustee is encouraging the investment managers to address any weaknesses we identify and are setting ambitious expectations for them to improve. One area of focus in our conversations with the investment managers is improving the quality of climate-related data for the Funds' assets, to give better visibility of the risks and ensure that the managers have the information they need to manage them. We also expect our investment managers to use their influence to encourage the companies they invest in to operate in a way that supports the transition to a low carbon economy.

Furthermore, the Trustee has recently selected climate change as one of three stewardship priorities, which form a focus for the Trustee's stewardship activities. The Trustee has selected climate change, equality, diversity & inclusion and executive pay as its stewardship priorities and investment managers are now required to report on these priorities on a regular basis, including reporting on the engagement and voting they undertake in relation to managing these risks and the threat they pose to long-term asset returns and valuations.

Understanding the implications for our participating employers

The Trustee also consider how the Funds' participating employers might be impacted by climate-related issues and how this might affect their ability to support the Funds. All entities will be affected to some extent, and the economy will suffer significant damage in the long-term if temperatures continue to rise. However, in the shorter term, the participating employers, which are all training providers, are unlikely to be particularly at risk.

Metrics and a Target

The Trustee has identified metrics to monitor climate related risk and has requested the Funds' investment managers to target that at least 75% of listed equity and corporate bond investments have a greenhouse gas emission reduction target, which is accredited by the Science Based Targets initiative ("SBTi"), by 2030. This will enable the Trustee to assess the extent to which the Funds' equity and corporate bond investments are aligned to the Paris Agreement goal of limiting global average temperature rises to 1.5°C above pre-industrial levels. SBTi is a partnership between the Carbon Disclosure Project, the United Nations Global Compact, World Resources Institute and the World-Wide Fund for Nature. As at 31 March 2023 the proportion of companies within the Funds' equity and corporate bond investments that have set SBTi targets stands at 38% (2022 – 30%) for the Open Fund DB Section, 31% (2022 – 25%) for the Open Fund DC Section and 41% (2022 – 36%) for the Closed Fund. The improvements this year, particularly for the DB Sections, are due to switching equity allocations to low carbon benchmark funds.

IN SUMMARY

Overall, the Trustee believes that the Funds are relatively well positioned to manage the risks arising from climate change and to benefit from investment opportunities that the transition to a lower carbon economy might bring. During the year good progress has been made towards meeting its climate change risk target and I look forward to providing a further update next year.

DNMcGuiness

Newell McGuiness, Chair
The ITB Pension Funds

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Executive Summary

This report describes the activities and approach taken by the Trustee to understand and reduce the risks to the Funds related to climate change. It also documents the metrics and target set by the Trustee to monitor and reduce exposure to climate-related risks over time. The following points are a summary of the detailed report that follows:

- The Trustee has agreed a set of Climate Related Risk Beliefs and issued a Statement on Governance of Climate Change Risks and Opportunities. These formal statements form part of the governance framework over climate related risk. The beliefs are the background against which decisions about investment strategy can be made.
- A significant amount of training has been undertaken by the Trustee and more detailed training by the Investment Committee and Investment Governance Working Group.
- The Trustee has identified risks and opportunities to the Funds arising from physical changes to the climate itself and from steps being taken to limit climate change.
- The Trustee has carried out and reviewed a scenario analysis to consider how these risks and opportunities might affect the funding strategy, investment strategy and the sponsoring employers' covenants.
- The investment managers' ability to protect the Funds' assets from climate change has been assessed and the Trustee is encouraging them to enhance their approach where appropriate.
- During the year the Trustee invested in low carbon equity funds in the Open Fund DB Section and in the Closed DB Fund. These low carbon equity funds target reduced carbon emissions exposure compared to a standard global equity fund benchmark.
- The Trustee has updated the Funds' risk management processes to include more explicit consideration of risks related to climate change.
- The Trustee has selected climate change as one of three stewardship priorities, which form a focus for the Trustee's asset stewardship activities.
- Data on the Funds' assets' exposure to greenhouse gas emissions has been collected to help the Trustee understand and monitor these risks, and we believe the quality and scope of data will continue to develop further in future.
- The Trustee has agreed greenhouse gas emissions, target setting and data quality metrics to monitor climate related risk and have set the investment managers a target of at least 75% of listed equity and corporate bond investments to have greenhouse gas emissions reduction targets approved by the Science Based Targets initiative (SBTi) by 2030.
- As at 31 March 2023 this proportion stands at 38% for the Open Fund DB Section, 31% for the Open Fund DC Section and 41% for the Closed Fund, all which represent improvements compared with 2022.
- Metrics and a target have so far only been set as far as the Trustee is able – i.e. for assets for which relevant and consistent data is available which are the DB sections' listed equity and corporate bond investments, and which are in the DC default fund. The other DB investments – government bonds, derivatives and buy-in insurance policies – do not have relevant and consistent data available. 92% of the DC funds by value are covered by the metrics and target. The Trustee is making every effort to obtain sufficient data on the assets currently excluded from the metrics and target.

1. CONTEXT FOR THE REPORT

The ITB Pension Funds is a non-associated multi-employer pension scheme providing retirement benefits for employees of two Industry Training Boards and five successor bodies, that were formerly Industry Training Boards. Climate-related risks and opportunities have the potential to impact the Funds' investments, sponsoring employers and funding position. Identifying, assessing and managing them is a strategic priority for the Funds and, therefore, the Funds' Trustee (the "Trustee") has established an Investment Governance Working Group ("Working Group"), which reports to the Investment Committee, and has support from the Trustee's secretariat (the "Funds Office") and the Trustee's external advisers. The Working Group is responsible for supporting the Trustee in ensuring compliance with the requirements of legislation and guidance to act on climate-related risks.

The Trustee's focus on climate change risk mitigation, adaptation to the physical effects of climate change, and the successful transition to a low-carbon economy plays an important role in how investments are managed in all three sections of the Funds – the Open Fund DB Section, the Open Fund DC Section and the Closed Fund. As a result of this activity, the Trustee switched the Open Fund DB Section and Closed Fund equity allocations from broad market value index-based funds to low carbon-based funds, having already done that for the DC Section and AVC funds the previous year.

The Taskforce on Climate-related Financial Disclosures (TCFD) was established by the Financial Stability Board in 2015 to develop a set of recommendations for climate-related financial risk disclosures for use by companies, financial institutions and other organisations. The recommendations aim to encourage routine consideration of the effects of climate change in business and investment decisions, helping smooth the transition to a more sustainable, low-carbon economy. This is the Trustee's second statutory climate change report, covering the Funds' activities between 1 April 2022 to 31 March 2023, based on the TCFD's recommendations. This report covers the TCFD's four thematic areas and the eleven recommended disclosures:

- Governance: The Funds' governance of climate-related risks and opportunities:
  - The Trustee's oversight of climate-related risks and opportunities
  - The Trustee's role in assessing and managing climate-related risks and opportunities
- Strategy: The actual and potential impacts of climate-related risks and opportunities on the Funds and its investment and funding strategy:
  - Climate-related risks and opportunities the Funds have identified over the short, medium and long term
  - Impact of climate-related risks and opportunities on the Funds' strategy
  - Resilience of the Funds' strategy, taking into consideration different climate-related scenarios, including a 2C or lower scenario
- Risk Management: The processes used by the Funds to identify, assess, and manage climate-related risks:
  - Funds' processes for identifying and assessing climate-related risks
  - Funds' processes for managing climate-related risks
  - How processes for identifying, assessing and managing climate-related risks are integrated into the Funds' overall risk management
- Metrics and Targets: The metrics and targets used to assess and manage relevant climate-related risks and opportunities:
  - Metrics used by the Funds to assess the climate-related risks and opportunities in line with its strategy and risk management process
  - Scope 1, Scope 2 and Scope 3 greenhouse gas (GHG) emissions and the related risks – greenhouse gas emissions are explained in Appendix 2
  - Target used by the Funds to manage climate-related risks and opportunities and performance against targets

2. GOVERNANCE

2.1 The Trustee's oversight of climate-related risks and opportunities

The Trustee has primary responsibility for ensuring effective governance of climate change risks and opportunities in relation to the ITB Pension Funds.

Climate change is a financially material factor for the Funds. Therefore, the Trustee has allocated substantial time and resources to the governance of climate-related risks. Climate change represents a systemic risk to society, the economy and the financial system, although the transition to a low-carbon economy also presents opportunities. These risks and opportunities have the potential to impact the Fund's investments, sponsoring employers and funding position. The Trustee has made climate change a strategic priority and consistent with this, climate change featured strongly on the Trustee Board's quarterly meeting agendas throughout the year to 31 March 2023. The Trustee Board has established an Investment Governance Working Group ("Working Group") led by a Trustee Director, which reports to the Investment Committee, and has support from the Trustee's secretariat (the "Funds Office") and the Trustee's external advisers. The Working Group is responsible for supporting the Trustee in ensuring compliance with the requirements of legislation and guidance and to act on mitigating the impact of climate-related risks and consider any climate-related opportunities that are consistent with the investment objectives and strategy of the Funds.

The Trustee has agreed a set of climate related beliefs by gathering together opinions from all the Trustee Directors, following a training and discussion session, and distilling these opinions down to a set of cohesive beliefs agreed by all the Trustee Directors. These beliefs were reviewed during the year and the Trustee concluded that they remain valid. The Trustee's statement on climate related beliefs is set out in Appendix 1.

2.2 The Trustee's role in assessing and managing climate-related risks and opportunities

The Trustee has agreed a Climate Governance Statement which clearly lays out the roles and responsibilities of the Trustee Directors, the Scheme Actuary, the investment adviser, the covenant adviser, the legal adviser and the investment managers to ensure appropriate consideration of the climate-related risks and opportunities relevant to the Funds and so that the Trustee can be confident that its statutory and fiduciary obligations are being met. The Statement on Governance of Climate Change Risks and Opportunities is available on the Funds' website **www.itb-online.co.uk** and is reviewed annually by the Trustee to ensure it reflects the latest climate change governance and reporting requirements.

The Trustee has ultimate responsibility for ensuring effective governance of climate change risks and opportunities in relation to the Funds. The detailed work necessary to ensure effective governance is done by the Working Group, which is led by a Trustee with support from the Trustee's advisers and the Funds Office. The Working Group met frequently during the year and reports through the Investment Committee to the Trustee Board.

The Trustee's primary role is to oversee the identification, assessment and management of climate-related risks and opportunities that are relevant to the Funds. The processes the Trustee has established to satisfy itself that adequate steps are being taken to oversee climate-related risk and opportunities are set out below.

To ensure, at the very least, the Trustee is compliant with the Climate Change Governance and Reporting Regulations 2021 and related statutory guidance, the Working Group performed a gap analysis to identify areas where changes were necessary for the Funds to become compliant. A project plan was also established in line with the statutory guidance issued by the Pensions Climate Risk Industry Group (PCRIG). As a result, action was taken to enhance the established governance processes.

The Trustee is supported by advisers in incorporating climate change throughout the Funds' activities as appropriate. The Funds' investment adviser leads on climate-related risk training and has advised on scenario analysis, impact on investment strategy, metrics and selection of an appropriate target. The Funds' actuarial adviser leads on climate-related matters in relation to advice about funding strategy and the covenant adviser has assessed the impact of climate-related risk on the strength of covenant provided by the participating employers. The legal adviser assists the Trustee to identify and interpret the legislation relevant to the Funds. All advisers work collaboratively with the other advisers whenever this is needed to ensure an integrated approach.

The investment advisers attended all climate change Investment Committee agenda items, with the actuarial, legal and covenant advisers also advising the Trustee Board on relevant aspects, to ensure that the Trustee is fully informed in their discussions and decision making in all climate-related aspects of investment, funding, legal and covenant issues. The Trustee reviews, discusses and, where appropriate, challenges the information and advice it receives.

The Trustee has assessed the knowledge and understanding of climate related risks of the investment adviser, which summarised its expertise in a comprehensive document. This set out the investment adviser's expertise under the headings of climate expertise and commitment, individual consultant climate expertise, tools and software, thought leadership and policy advocacy and assessment of investment managers and engagement with them. The investment adviser was able to demonstrate it is amongst the market leaders in advising on climate relate risk and opportunities. Furthermore, the Trustee has set climate-related risk objectives for the investment adviser, and its performance against these is assessed formally by the Investment Committee as part of a wider annual review.

The Trustee Chair is responsible for ensuring that sufficient time is allocated for consideration and discussion of climate matters by the Trustee and by the Investment Committee and that the Working Group meets sufficiently frequently. The Chair allocated sufficient time at each of the quarterly Board and Investment Committee meetings to discuss climate change related risks. This time allocation allowed plenty of time for discussion by the Trustee Directors while balancing climate change with other Funds priorities such as the triennial valuation of the Open Fund and new statutory investment stewardship guidance.

As climate change is a relatively new area for the Trustee, and one where the external landscape and market practice is evolving rapidly, the Trustee has received comprehensive training in climate related risk and opportunities and regulations from the investment and legal advisers. A comprehensive annual refresher training session for the Trustee was delivered by the investment advisers in April 2022. This training included a summary of the Trustee's requirements under the Task Force for Climate Related Disclosure ("TCFD") regulations, an overview of the Funds' expected resilience under three climate scenarios, an overview of the Funds' exposure to climate risk and the agreed metrics and targets the Funds have set. In May 2022 the Investment Committee reviewed the investment managers' approaches to managing climate related risks and assessed whether the investment managers were aligned with the Trustee's climate related risk beliefs. In August 2022 the Investment Committee received training on setting a fourth climate metric, which included the TCFD requirements on selecting, collecting and reporting climate-related metrics, details of the new DWP requirements on adding a fourth metric to the next TCFD report and consideration of which metric should be chosen as the Trustee's fourth metric. In November 2022, the Investment Committee reviewed the investment managers approach to responsible investment which included an independent assessment of a manager's responsible investment approach, how climate-related risks and opportunities are managed and their approach to engagement with investee companies and voting. In February 2023 the Investment Committee reviewed the climate metrics and target using data as at 30 September 2022. The general conclusions from the review were that scope 1 and 2 emissions in the funds invested have generally reduced compared to 2021, that good progress had been made over the year towards meeting the Trustee's target to aim for at least 75% of listed equity and corporate bond holdings having a SBTi-aligned target by 2030 and that the Trustee should continue to engage with and encourage investment managers to work at addressing any data gaps, particularly in fixed income and multi-asset holdings.

The Funds Office senior management attend meetings of the Working Group, the Investment Committee and the Trustee Board and have, therefore, received the same training as provided to the Trustee. The Trustee has an ongoing commitment to training and training on climate-related risks and opportunities will form a significant component of training in the future.

The Trustee regularly receives an extensive set of reports in relation to climate risks and opportunities. Each quarter the Investment Committee receives reports from investment managers which include commentary and data on exposure to climate related risks. The Investment Committee reviews, discusses and challenges this information with the investment managers, if necessary. The investment adviser produces annual dashboards for each of the managers' funds which show their greenhouse gas emissions and carbon footprint, the potential emissions from fossil fuel reserves, climate change revenues and the percentage of each fund with SBTi accredited emission reduction targets.

In addition, the Trustee received a quarterly report throughout the year on the strength of the covenants of the participating employers which includes an assessment of the impact of climate-related risk on the participating employers' businesses.

At least annually, the Trustee reviews and (where appropriate) revises its governance arrangements, investment beliefs and policies in relation to climate change. Typically, once a year, the Investment Committee also reviews reports on the investment managers' climate practices and data on climate-related metrics.

At least once every three years, the Investment Committee will re-perform the scenario analysis that illustrates how the Funds' assets and liabilities might be affected under various climate change scenarios, along with commentary on the potential impacts for the sponsoring employers and the implications for the resilience of the Funds' funding and investment strategies. The scenario analysis was conducted for the first time in 2021 and in February 2023 the Trustee reviewed whether the results remain valid. As the DB sections' investment strategy did not change significantly during the year, it was considered appropriate to perform a high-level review of the 2021 scenario analysis this year without fully reperforming the analysis. The DC funds, including the default fund, are reviewed at least every three years to ensure that they remain appropriate for the membership and the next review will be carried out in 2023. The climate scenario analysis report for the DC funds will be re-performed following the next DC investment strategy review.

In future, whenever the Trustee reviews agreements with external advisers or appoint new advisers, they will consider including climate-related objectives and responsibilities in the agreements.

3. STRATEGY

3.1 Climate-related risks and opportunities the Funds have identified over the short, medium and long term

The Trustee has selected the periods to 2025, 2028 and 2045 as suitable short-, medium-, and long-term time horizons for considering the climate-related risks and opportunities faced by the Open Fund DB Section. For the DC Section 2027, 2040 and 2060 have been identified as suitable time horizons.

The Trustee has not identified time horizons for the Closed DB Fund as it is fully insured and, therefore, in all climate change scenarios the risks of members not receiving their pensions is very low. The invested assets include a significant allocation to listed equity and corporate bonds and the Trustee will monitor climate related risks for those assets. The Trustee will also engage with the buy-in provider about its exposure to climate related risks and as previously explained, as there is not sufficient data the metrics and target do not apply to buy-in policies.

	Open DB Fund		Open DC Section	
Time period	**Range**	**Rationale**	**Range**	**Rationale**
Short Term	2 years (to 2025)	Possible risks and opportunities are expected to arise from the transition to a low carbon economy under the Paris Orderly scenario (See table on p13).	4 years (to 2027)	Although older members have a relatively short time until retirement, climate scenario impacts are most prominent for equities. Most DC members are in the default fund, in which the equity allocation reduces towards retirement. A 4-year timeframe reflects when the impacts from climate change may start to be more widely experienced across the DC membership.
Medium Term	5 years (to 2028)	Possible risks and opportunities are expected to arise from the transition to a low carbon economy under the Paris Disorderly scenario (See table on p13). This can also impact insurer pricing and potentially delay the target date for buy-out in 2028.	17 years (to 2040)	With longer time to retirement and higher equity allocation, middle-aged members have larger impacts than older members under a Failed Transition scenario (See table on p13). Members whose equities are invested in low carbon funds will have some compensating protection.
Long Term	22 years (to 2045)	Consistent with the duration of the uninsured liabilities. Given the Trustee aims to fully insure the DB section by 2028 the impact of climate risks over the longer-term is likely to be minimal if the Trustee has achieved their target over the medium term.	37 years (to 2060)	The impact is more significant for younger members, reflecting the longer time horizon to retirement.

The Funds face risks and opportunities from both the physical effects of changes in the climate itself – for example, more frequent storms, rising temperatures and changing rainfall patterns – and from the effects of transitioning to a lower carbon economy to limit the extent of climate change – for example, government policies to restrict or discourage the use of fossil fuels, technological advances in renewable energy, and shifts in consumer demand towards "greener" products.

Many of these climate-related risks and opportunities could affect the value of the Funds' assets. Others could affect the sponsors and their ability to provide financial support to the Funds.

Some risks and opportunities may affect the Open Fund DB Section's pension liabilities, for example through affecting members' life expectancy or the inflationary increases made to pensions each year. Taken together, and if not sufficiently managed, these risks and opportunities may affect the adequacy of the Open Fund DB Section's assets to pay the promised benefits, changing the extent to which the Fund needs the sponsors' financial support. The Trustee has the Long-Term Funding Objective to fully secure the Open Fund DB Section benefits through an insurance company "buy-in" contract by 2028. Climate change could throw this plan off track, or potentially accelerate it. The liabilities in the Closed Fund are fully insured, therefore, the risk to Closed Fund members not receiving their pensions is very low. However, the Trustee will engage with the buy-in insurance provider about its exposure to climate related risks.

The Trustee has considered three main areas of risk to the Funds' financial position:

1. Climate change reduces chance of achieving the long-term funding objective (Open Fund DB Section)
2. Climate change diminishes members funds at retirement (DC Section)
3. Climate change weakens the strength of employers' covenant

These areas are considered in turn below. Risks 1 and 2, that apply separately to the Open Fund DB Section and DC Section, are considered together.

Climate change reduces the chance of achieving the long-term funding objective (Open Fund DB) and / or diminishes members funds at retirement (DC Section)

Through climate scenario analysis, the Trustee identified that the physical impacts of the changing climate and the transition to a low carbon economy could both result in lower real investment returns, linked to lower economic growth. Some of these effects may be felt gradually as the economic impacts occur and others may occur more suddenly as investment markets anticipate the impacts and asset prices adjust accordingly, for example a market shock in reaction to a specific weather-related disaster or an unexpected international policy development.

Physical impacts are expected to have a negative economic effect, particularly over the medium to long-term. Even if temperature rises are limited to 1.5˚C in line with the Paris Agreement, quite significant physical impacts are likely. In higher temperature scenarios, the long-term impacts on the economy could be very severe, although the risks to the Open Fund DB Section should be mitigated by its low-risk investment strategy under which the value of its assets is expected to move broadly in line with the value of its liabilities under all of the potential climate scenarios considered.

Transition risks in particular could cause volatility in investment markets as the economy undergoes a significant shift in the way energy is generated and consumed and financial markets adjust to these changes. The current decade will be critical in determining whether the Paris Agreement goals will be met, and investment market volatility may be heightened over this period as governments introduce policies to achieve the Agreement's decarbonisation and adaptation goals, and investors continually update their assessments of the likelihood of different climate outcomes.

All investment portfolios will be affected by physical and transition impacts to some extent due to their economywide nature. However, the extent of the impacts will depend on how the individual assets in the investment portfolio are affected.

In addition to government bonds and buy-in policies, the investment managers appointed by the Trustee invest in the equity and debt of a range of companies, whose products and services each have varying levels of exposure to climate-related factors. Investments may be made in companies that are highly exposed to the effects of the transition to a low carbon economy, for example those whose business model is reliant on fossil fuels, and do not have good strategies to deal with those effects. One specific risk is that assets become "stranded", i.e. they suffer an unanticipated loss of value before the end of their expected useful economic life.

For example, companies in the coal, oil and gas sectors may find fossil fuel reserves are less valuable than expected due to falling demand during the low carbon transition, causing them financial difficulties. Similarly, utility companies may lose value if thermal coal power stations are shut down earlier than expected.

There are also opportunities to invest in companies whose products and services enable emissions reductions, improve physical resilience or ensure the more efficient use of resources, or are simply managing the low carbon transition well. These companies also have various levels of exposure to climate-related physical risks. For example, companies in the food and textile sector are likely to be affected by changing weather patterns' effect on crop yields, and all companies may experience weather-related disruption to their supply chain. All the equity funds, DB and DC including within the default option, have been switched to low carbon funds, where the investment manager 'tilts' the investments relative to market weighted indices towards companies that manage exposure to carbon (e.g. fossil fuels) well compared with the market weighted equity index.

The balance of risks and opportunities to the Funds' assets will depend on the specific assets selected by the investment managers, which in turn will depend on the effectiveness of the managers' processes to identify, assess and manage climate-related risks and opportunities.

For self-select DC members the risks and opportunities also depend on the range of funds the Trustee makes available, and which funds the members choose to invest in.

Risks relating to lack of data

There is a risk that the Funds' investment managers do not have adequate data to identify, assess and manage climate factors, both in terms of coverage and quality. Any missing or incomplete data leaves the Trustee without the information it requires to properly monitor climate risks the Funds are exposed to.

In relation to carbon emissions, lower quality data is less likely to accurately reflect the company's actual emissions and so may give a misleading impression of the climate risk exposure. If the data available for a company improves and reveals very different emissions figures from those previously used, the price of the company's shares and bonds may change, impacting on the value of the Funds' assets. This repricing could happen quickly and remains a risk while data quality is poor.

The Trustee found that sourcing adequate data was somewhat problematic for the Funds' buy-in insurance policies. The insurers' data has been calculated using different methodologies, therefore comparisons between the buy-in holdings are not directly valid. Just has produced CO_2e data for 2022 for its company operations only and is producing insurance policy emissions data on a year lagged basis, as data collection and calculation methodology improve. However, as explained above the Trustee is not proposing to monitor metrics, or a target related to buy-in policies, therefore the quality of data for buy-in policies is not considered critical to the action the Trustee can take in relation to mitigating climate-related risks.

3.1.2 Climate change weakens the strength of employers' covenant

The Trustee's covenant adviser has given advice covering:

- The participating employers' governance around climate-related risks and opportunities
- The main climate-related risks faced by the participating employers over the short, medium and long-term
- How the participating employers identify, access the impact and likelihood and mitigate these risks
- The climate-related risks that might affect the participating employers' viability over the long-term, and
- How the participating employers seek to achieve a resilient business model which is robust to a wide range of potential climate scenarios.

In recognition of the feedback received from the participating employers, the covenant adviser believed it reasonable to conclude that the exposure to climate-related risks across the participating employers does not pose a material risk to the overall strength of the collective covenant. However, it recommended that climate-related risk is monitored on an ongoing basis with annual updates sought from each of the employers.

The adviser concluded that the main climate related risks facing the employers fell into two categories (i) those that impact upon the training industry and therefore impact the employer and (ii) those that directly impact on the employer's operations.

In relation to industry risks, these are considered to be more long-term and will revolve around the impact of Net Zero legislation and future legislation to combat climate change e.g. rising temperatures, etc. Employers will therefore need to ensure that training provision is appropriate to meet industry demands by adapting current training products to meet evolving challenges. This will undoubtedly create new opportunities for employers.

In relation to operations, the adviser identified that employers need to adopt climate friendly processes – e.g. remote working, less face-to-face training leading to reduced travel and hotel usage, etc. It was recognised that the impact of the Covid pandemic had already started this process with all employers having moved to agile working (e.g. working from home). Furthermore, employers are introducing new standards and courses to reflect best practice from an environmental perspective e.g. e-learning. Operational risk is viewed as short to medium-term and will evolve as employers develop their processes to better reflect climate related risks.

3.2 Impact of climate-related risks and opportunities on the Funds' strategy

The impact of climate-related risks and opportunities on the DB Funds' strategy has been assessed against the background of the integrated risk management approach common to pension schemes and the Trustees' climate related risks beliefs. This approach integrates three elements – funding strategy, investment strategy and strength of covenant. As to funding strategy, both the DB Funds are well funded on prudent bases.

The Open DB Fund's latest triennial valuation as at 31 March 2022 showed the Fund to be 105% funded on a prudent basis which includes a provision for potential costs relating to climate-related risks, whereas the Closed DB Fund's latest triennial valuation as at 31 March 2021 showed the Fund to be 221% funded on a prudent basis. The investment strategy for the Open DB Fund is low risk and the Fund is viewed as being "self-sufficient" – i.e. it is considered that there is only a small risk that the Open Fund would require additional contributions as a result of adverse market circumstances or because of better than assumed mortality experience. The investment strategy of the Closed DB Fund is also low risk, and all pensions are insured. The investment strategy for the Closed DB Fund's invested assets aims to achieve low volatility of the assets relative to annuity pricing. The covenant adviser assesses the overall strength of the combined covenants of the Open Fund's participating employers.

Therefore, as regards the DB Sections the impact of climate-related risks is assessed against this background. The impact of climate-related risks has been fully considered and assessed (see section 3.3 below) and the Trustee believes the DB Sections are well placed to deal with the risks presented.

The DC Section of the Funds is a master trust and complies with the regulatory regime applicable to master trusts. This includes demonstrating the financial sustainability of the trust and reserving for costs of wind-up, if ever that should be necessary, to protect the benefits of members. The impact of climate-related risks on the DC Section is assessed against this background. The impact of climate-related risks has been fully considered and assessed for the DC Funds (see section 3.3 below) and as a result the Trustee believes that the DC Funds are exposed to potential negative outcomes as a result of climate related-risks in certain scenarios. The Trustee's strategy is to monitor the impact of these risks to ensure action is taken appropriately. The investment strategy of the DC Funds is reviewed periodically, and climate risk scenario analysis forms part of these reviews. The Trustee wishes to balance the need for long-term growth of the DC Funds with managing risks, including climate-related risks. At the last strategy review (in 2020) the Trustee decided to reallocate the equity allocation in the lifestyle funds, including the default fund, from market weighted indices to low carbon equity funds. The next review of the DC Section's investment strategy is scheduled for 2023.

3.3 Resilience of the Funds' strategy, taking into consideration different climate-related scenarios

The Trustee assesses the risks and opportunities it has identified using two main tools: climate scenario analysis and climate-related metrics. The first one is covered in this section and the second in section 5.

3.3.1 Climate scenario analysis

Scenario analysis is a tool for examining and evaluating different ways in which the future may unfold. At the August 2021 Investment Committee meeting the Trustee Directors used scenario analysis as at 31 March 2021 to consider how climate change might affect the funding and investment strategies. In February 2023 the Investment Committee reviewed the scenario analysis and the investment adviser confirmed to the Trustee that the analysis remained up-to-date and appropriate and, therefore, there was no requirement for a new scenario analysis to be completed in 2023. For information about the modelling approach, see Appendix 3.

The three climate scenarios within the model are as follows:

- Failed Transition: Paris Agreement goal to limit temperature rises to well below 2°C not met; only existing climate policies are implemented.
- Paris Orderly Transition: temperature rises limited to well below 2°C; rapid and effective climate action to reduce greenhouse gas emissions, with smooth reaction by financial markets.
- Paris Disorderly Transition: same policy, climate and emissions outcomes as the Paris Orderly Transition, but financial markets are initially slow to react and then over-react.

To provide further insight, the Trustee compared the outputs under each scenario to a "climate uninformed base case", that makes no allowance for either changing physical or transition risks in future.

The scenarios' key features are summarised in the table below. The three climate scenarios chosen are intended to be plausible, not "worst case". The Trustee acknowledges that many alternative plausible scenarios exist and that other scenarios could indicate better or worse outcomes for the Funds.

Scenarios	Failed Transition	Paris Orderly Transition	Paris Disorderly Transition
Low carbon policies	Continuation of current low carbon policies and technology trends	Ambitious low carbon policies, high investment in low-carbon technologies and substitution away from fossil fuels to cleaner energy sources and biofuel	
Paris Agreement outcome	Paris Agreement goals not met	Paris Agreement goals met	
Global warming	Average global warming is about 2˚C by 2050 and 4˚C by 2100, compared to pre-industrial levels	Average global warming stabilises at around 1.5˚C above pre-industrial levels	
Physical impacts	Severe physical impacts	Moderate physical impacts	
Impact on GDP	Global GDP is significantly lower than the climate-uninformed scenario in 2100. For example, UK GDP in 2100 predicted to be 55% lower than in the climate uninformed scenario	Global GDP is lower than the climate-uninformed scenario in 2100. For example, UK GDP in 2100 predicted to be about 10% lower than in the climate-uninformed scenario	In the long term, global GDP is slightly worse than in the Paris Orderly scenario due to the impacts of financial markets volatility
Financial market impacts	Physical risks priced in over the period 2025-2030. A second repricing occurs in the period 2035-2040 as investors factor in the severe physical risks	Transition and physical risks priced in smoothly over the period of 2021-2025	Abrupt repricing of assets causes financial market volatility in 2025

Reasons for the Trustee's choice of scenarios

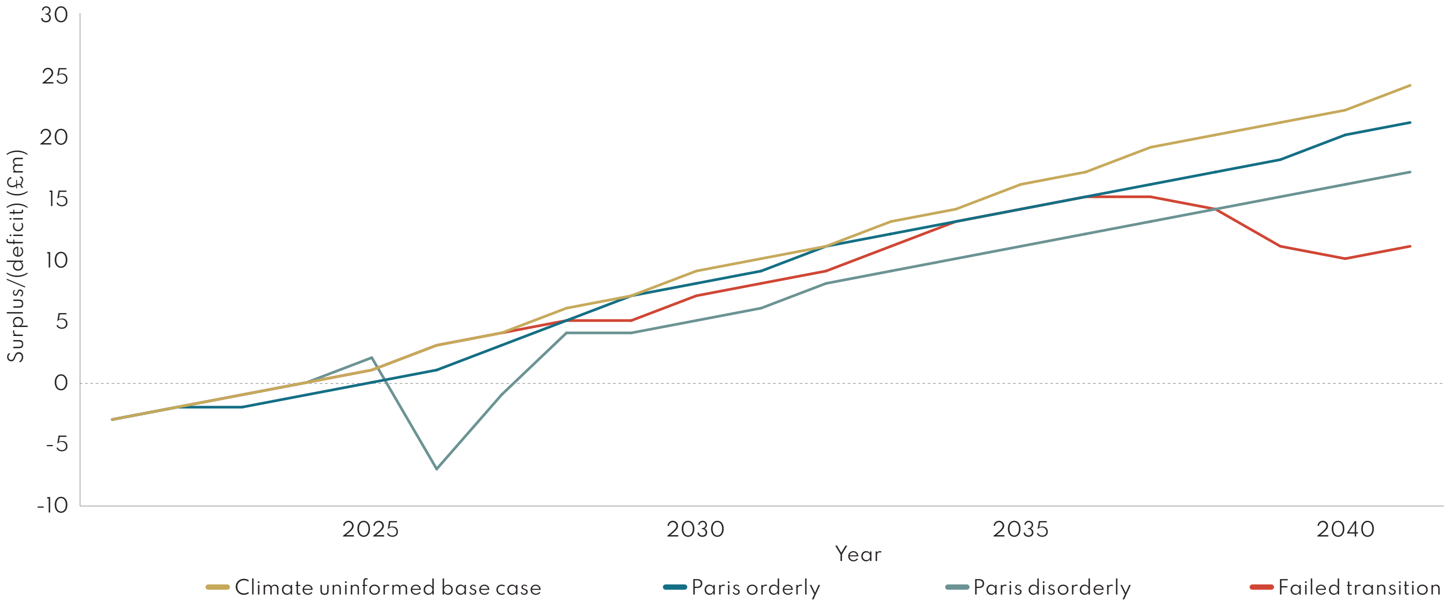
The Trustee acknowledges that many alternative plausible scenarios exist but found these three were a helpful set of scenarios to explore how climate change might affect the Funds in future.

- The Trustee considered the Failed Transition scenario to explore what could happen to the Funds' finances if carbon emissions continue at current levels and this results in significant physical risks from changes in the global climate that disrupt economic activity.
- The Trustee considered the Paris Orderly Transition to see how the Funds' finances could play out if the Paris Agreement goals are achieved, meaning that the economy makes a material shift towards low carbon by 2030.
- The Trustee considered the Paris Disorderly Transition to look at the risks and opportunities for the Funds if the Paris Agreement goals are met, but financial markets are volatile as they adjust to a low carbon economy.
- To provide further insight, the Trustee also compared the outputs under each scenario to a "climate uninformed base case", that makes no allowance for either changing physical or transition risks in future.

For more information on the modelling approach see Appendix 3.

Potential impacts on the Funds' financial positions under each scenario

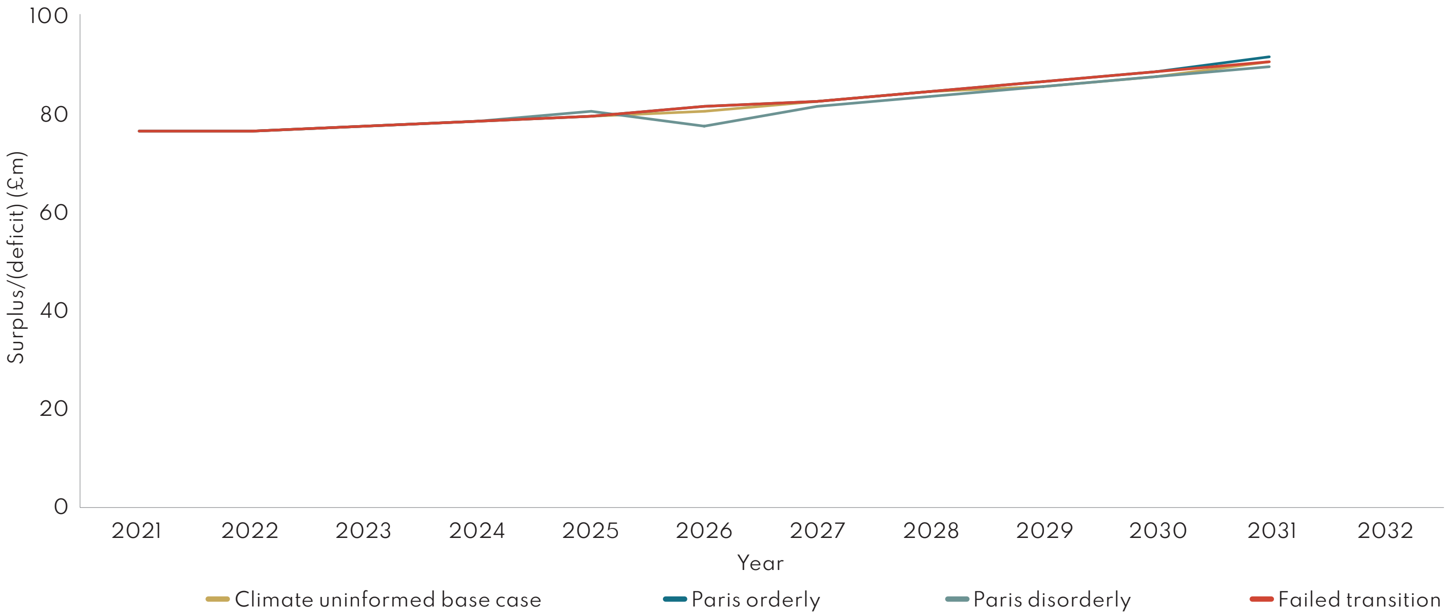
Open Fund DB Section



The scenario analysis shows that an equity and credit spread shock in the mid-2020s under the Paris Disorderly scenario could push the Fund into deficit on the current technical provisions – credit spreads are projected to recover in this scenario with a more permanent rebasing of equity values.

The chart only considers the Fund's finances. When considering whether the Fund will be able to achieve its long-term DB funding target to fully insure the DB section by 2028, the impact of climate risks on insurers is also relevant. In particular, the Trustee considered how climate change risks could affect insurer pricing for securing pension benefits with further buy-ins and ultimately a buy-out insurance policy. A change in insurer pricing levels could have a significant impact on when it will be feasible to secure the remaining uninsured benefits with an insurer. Future insurance pricing is inherently uncertain, so the Trustee will continue to monitor it, especially as the Fund gets closer to a possible buy-out transaction.

Closed Fund DB



Whilst the Closed Fund could experience a small shock in the mid-2020s, across the portfolio under the Paris orderly scenario, the majority of the Fund's portfolio is expected to recover in subsequent periods.

Open Fund DC Section

Scenarios	Member aged 25	Member aged 35	Member aged 45	Member aged 55
	Change relative to climate-uninformed outcome			
Climate-uninformed outcome	0	0	0	0
Paris Orderly outcome	-4%	-2%	-1%	-1%
Paris Disorderly outcome	-5%	-3%	-2%	-4%
Failed Transition outcome	-24%	-21%	-16%	-2%

The failed scenario is the worst outcome for most members (in terms of expected pension pot). A disorderly transition impacts all DC members, but it is the worst scenario for members aged over 55.

4. RISK MANAGEMENT

4.1 Funds' tools and processes for identifying and assessing climate-related risks

The Trustee has identified and assessed climate-related risks and opportunities to the Funds through discussions with its advisers, along with:

- Attending climate change training to understand how climate-related risks might affect pension schemes and their investments in general terms;
- Commissioning scenario analysis which shows how the Funds' assets and liabilities might be affected under a range of different climate scenarios, and advice on the implications of the analysis for the Funds' funding strategy, investment strategy and achieving its investment objective;
- Considering advice on how the participating employers might be affected by climate-related factors, and the implications for their ability to provide financial support for the Funds;
- Reviewing the investment adviser's assessments of the Funds' current and prospective investment managers' climate practices, including how they incorporate climate-related factors into their investment process and how effectively they manage climate-related risks; and
- Monitoring a range of climate-related metrics in relation to the Funds' assets.

In addition, the Trustee expects the investment managers to identify, assess and manage climate-related risks to the Funds' assets on a day-to-day basis. The Investment Committee discusses climate change risk when it meets investment managers, in order to increase its understanding of the Funds' climate-related risks and test the adequacy of the steps being taken to manage them.

4.2 Funds' tools and processes for managing climate-related risks

Review of investment mandates

If the Investment Committee identifies any concerns with the way any of the investment managers is addressing climate-related risks and opportunities, it intends to engage with the investment manager – either directly or through the investment adviser – to raise the concerns and seek improvements. If the investment manager does not improve sufficiently, the Trustee will consider switching to a different investment manager.

Equity Funds

The Investment Committee conducted a periodic review of the DC and AVC Funds investment strategy in 2020. As part of this review, the Trustee considered the risks to the investment arrangements arising from climate change.

In order to help address the risks posed by climate change, the DC and AVC lifestyle investment strategies invest in low carbon equity fund (currency hedged and unhedged versions) in order to reduce exposure to companies with high levels of carbon dioxide emissions. Compared to a standard global equity fund that aims to track a market weighted benchmark, the fund invested in (L&G Low Carbon Transition Fund) reduces allocations to companies with high levels of carbon emissions and has slightly higher allocations to companies that pollute less. The worst companies by this measure (e.g. coal miners) may not have any exposure in the fund. The current fund objective is to reduce carbon emissions exposure by 70% compared to a standard global equity fund benchmark, and over time to reduce the exposure further.

In November 2021 the Investment Committee decided to extend the principle of low carbon equity investing to the DB Funds. As a result in April 2022, the entire equity allocation of the

Open Fund DB Section was reallocated to the same L&G Low Carbon Transition Fund as invested in by the DC and AVC Funds' lifestyle strategies and the entire equity allocation of the DB Closed Fund was reallocated to the BlackRock ACS World Low Carbon Equity Tracker Fund. The objective of the BlackRock fund is to minimise carbon exposure and exclude companies with exposure to fossil fuels, while achieving a target level of 0.5% tracking error or less relative to the MSCI World Low Carbon Target Reduced Fossil Fuel Select Index.

Engagement and other stewardship activities

The Trustee expects the Funds' investment managers to engage robustly with investee companies on climate-related (and other) matters. The Trustee generally believes that engaging with companies is more effective at encouraging change than selling the Funds' investments in those companies.

Ideally, investment managers would be engaging with companies to improve the management of climate factors, as well as disclosure of climate-related data, so that the Funds are not exposed to companies that are unprepared for the impacts of climate change or the transition to a low carbon economy. The Trustee also expects the investment managers to increase their influence through engaging in collaboration with other investors and to use policy advocacy to address systemic climate risks. For example, encouraging governments to provide clear policy signals that reduce uncertainty about the low carbon transition and to take stronger action that increases the chance of meeting the Paris Agreement goals and hence reducing the risk that the Funds face significant physical climate risks in the longer term.

The investment adviser assesses investment managers' responsible investment practices and reports its findings to the Investment Committee every two years. The report rates investment managers over their commitment to responsible investment, having senior management accountable for responsible investing, having an investment process that appropriately considers Environmental, Social and Governance ("ESG") factors, and stewardship policies on issues like climate change, fair pay, board responsibilities and diversity. The latest assessment in May 2022 found that sixteen of the eighteen funds invested in by the Funds were rated highly (no material concerns), whilst two were given a lower rating due to improvements that were required in engagement and lack of comprehensive information.

More information on the Trustee's stewardship activities can be found in the Statement of Principles Implementation Statement.

4.3 How processes for identifying, assessing and managing climate-related risks are integrated into the Funds' overall risk management

The identification, assessment and management of climate-related risks are integrated into the Funds' overall risk management processes. These risks are identified by the Working Group and Investment Committee with the assistance of the investment advisers, covenant advisers and legal advisers and incorporated into the periodic review of the risk register and risk and control framework. Each of the risks, including the climate-related risks, are rated as to potential loss impact and likelihood. There is then an assessment of the risks after considering the effectiveness of preventative and detective controls, resulting in an overall residual risk rating. The Funds Office senior management performs quarterly reviews of the risk and control framework, and the Trustee's review and oversight of the risk and controls framework is as follows: the Investment Committee reviews the climate-related risks each year; the Management Panel performs a detailed review of the entire risk and control framework each year and the Trustee also reviews the framework annually at a higher level. The climate-related risks are fully integrated into this identification, assessment and management process.

5. METRICS AND TARGETS

The Trustee has set metrics and a target for the DB sections' listed equity and corporate bond investments. The other investments – government bonds, derivatives and buy-in insurance policies – do not have the relevant and consistent data available, therefore no metrics or targets have been set for these investments. The metrics and targets also only relate to the listed equity and multi-asset funds in the default DC strategy, although these funds make up 92% of funds by value. The Trustee is making every effort to obtain sufficient data on the assets currently excluded from the metrics and target.

5.1 Metrics used by the Funds to assess the climate-related risks and opportunities in line with the strategy and risk management process

The investment adviser collected the latest available data from the Funds' investment managers for the metrics and presented it to the Investment Committee in February 2023 in a series of dashboards for each fund invested in, along with training on interpretation of each of the metrics. In the previous year the Trustee selected, calculated and reported on three climate metrics and added in a fourth metric for data quality in August 2022:

1. Absolute emissions e.g. tonnes of $CO2$ ($tCO2e$) – "Total GHG emissions" in the tables and charts below.

2. Emissions intensity e.g. tonnes of CO2 per £1million invested (tCO2e/£m) – "Carbon footprint" in the tables and charts below.
3. A portfolio alignment metric – an approved Science Based Targets initiative (SBTi) carbon reduction targets metric – "Portfolio alignment" in the tables and charts below.
4. Data quality – Proportion of the portfolio for which the trustees have high quality emissions data – "Data coverage" in the table and charts below.

Details of these metrics are as follows:

Metric	Detail
Absolute emissions	This measures a portfolio's total greenhouse gas (GHG) emissions associated with the Funds' assets. It represents the Funds' share of its portfolio companies' emissions if emissions are split between equity and debt investors in proportion to the value of their investment in the company.
Emissions intensity	This is a carbon footprint metric, expressed as the total GHG emissions per £m invested by the scheme (the "carbon footprint"). It is equal to total greenhouse gas emissions divided by the value of the portfolio. As the metric adjusts for the value of the portfolio, it allows emissions exposure of different portfolios to be compared.
Portfolio alignment	This is an emissions reduction target metric, which measures the extent to which the Funds' investments are aligned to the Paris Agreement goal of limiting global average temperature rises to 1.5˚C. It is calculated as the proportion of companies with SBTi-accredited targets to reduce their greenhouse gas emissions. The Trustee chose this "binary target" measure because it is the simplest and most robust of the various portfolio alignment metrics available.
Data quality	Proportion of the portfolio for which the Trustee has high quality emissions data – i.e. the proportion of the portfolio for which Scope 1-2 and 3 emissions are verified, reported, estimated or unavailable.

The Trustee chose to report these metrics as they are consistent with those which they expect are required to report under the new legislative requirements.

5.2 Scope 1, Scope 2 and Scope 3 greenhouse gas (GHG) emissions and the related risks

The metrics for the Funds' investments are shown below, based on the latest investment fund data available up to the end of the financial year at 31 March 2023.

Open Fund – DB Section

Open Fund DB Section asset allocation 31 March 2023

EQUITIES CORPORATE CREDIT
GOVERNMENT BONDS AND LDI BUY-INS

Open Fund – DB Section Data Coverage

Asset class (% DB assets)	Details of missing data or estimations
Equities (3%)	See Appendix 4
Corporate Credit (10%)	
Government bonds and LDI (33%)	Calculations are based on Total UK GHG emissions per £ of government debt (tons/£m) where Scope 1+2 emissions are calculated on a production basis and Scope 3 emissions are for imports (per DWP guidance).
Buy-ins (54%)	Buy-in assets are expected to comprise largely public debt (both corporate credit and government) and private holdings. The insurers' emissions calculations data has been calculated using different methodologies, largely consider corporate debt only (public & private) and they have excluded government absolute emissions calculations as part of their summarised metrics. Just has produced CO2e data for 2022 for its company operations only and is producing insurance policy emissions data on a year lagged basis. These methodologies differ to guidance offered by the DWP and calculations for the Fund's other gilt-based holdings. Consequently, data reported for buy-in assets is not directly comparable with other asset classes/holdings.

Manager, asset class and valuation (£m)	Scope 1 and 2 emissions			Scope 3 emissions			Portfolio alignment	Data source – See Appendix 4	Date of portfolio value and data
	Data coverage (%)	Total GHG emissions (tCO2e)	Carbon footprint (tCO2e /£m)	Data coverage (%)	Total GHG emissions (tCO2e)	Carbon footprint (tCO2e /£m)	Proportion with SBTi target (%)		
LGIM – Low Carbon Transition Global Equity (£20m)	99.4	508	18	99.4	6,141	223	38.5	MSCI	Value – 31/3/23 Data – 23/1/23
Insight – Corporate credit (£73m)	69.2	2,093	46	66.7	18,431	408	37.5	MSCI	Value – 31/3/23 Data – 27/1/23
Insight – government bonds and LDI (£239m)	100.0	45,923	181	100.0	27,685	109	N/A	N/A	Value – 31/3/23 Data – 30/9/22
PIC – 3 buy-ins (£316m)	63	19,773	100	35	42,918	425	5	PIC	Value – 31/3/23 Data – 31/12/22
Just – buy-in (£74m)	78.4	N/A	82	73.7	N/A	279	16	Just	Value – 31/3/23 Data – 31/12/21

N/A – data not available. The overall impact of the unavailable data is uncertain, and the Funds will continue to work with Just in future to help make this data available.

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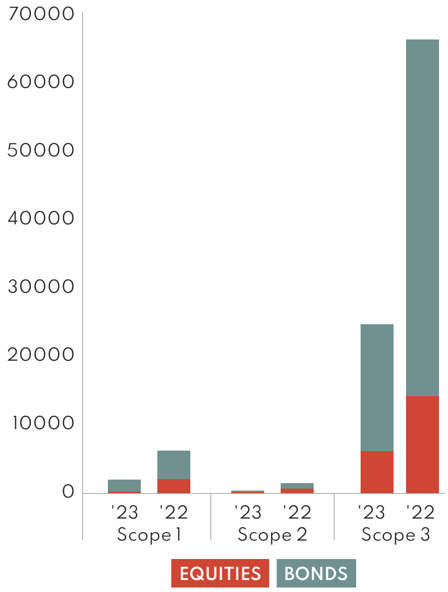
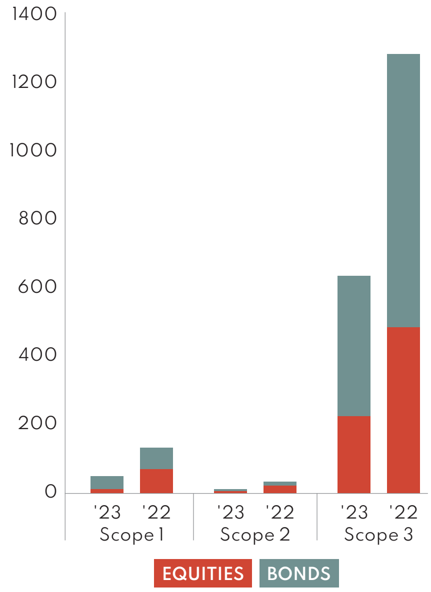
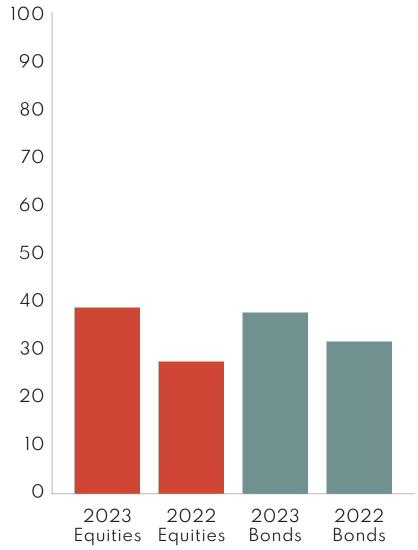
Total GHG emissions (tCO2e)

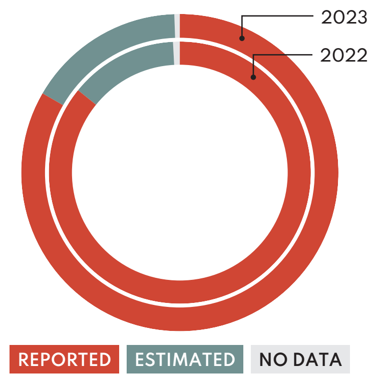
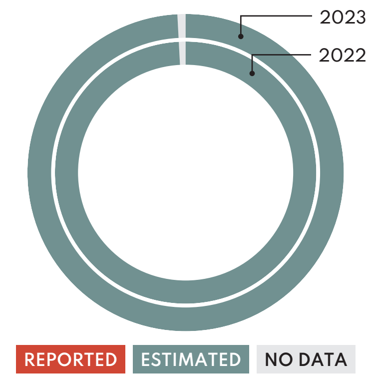
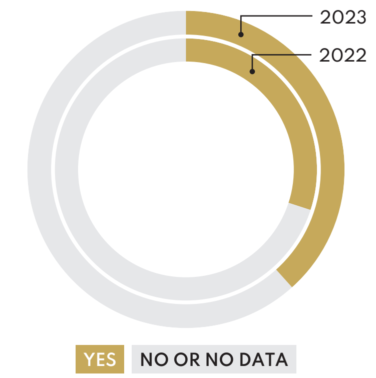
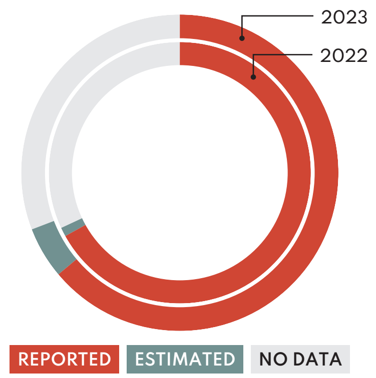
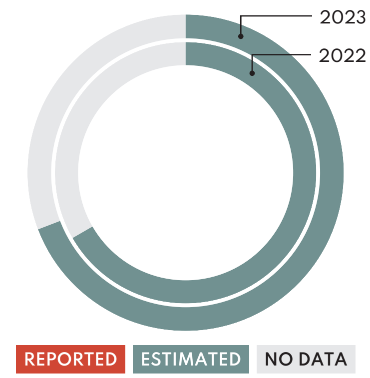
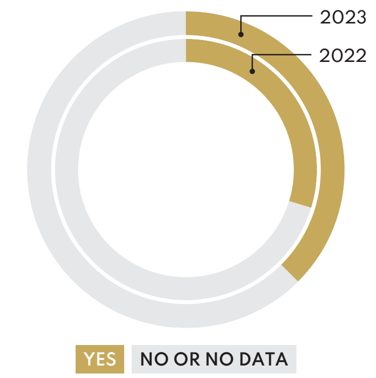


Carbon footprint (tCO2e/£m)



Proportion with SBTi targets (%)



Manager, asset class and valuation (£m)	Scope 1 and 2 emissions data coverage	Scope 3 emissions data coverage	Emissions targets coverage (SBTi)
LGIM – Low carbon Equities (31/3/22 – £31m)			
Insight – Corporate credit (31/3/22 – £87m)			

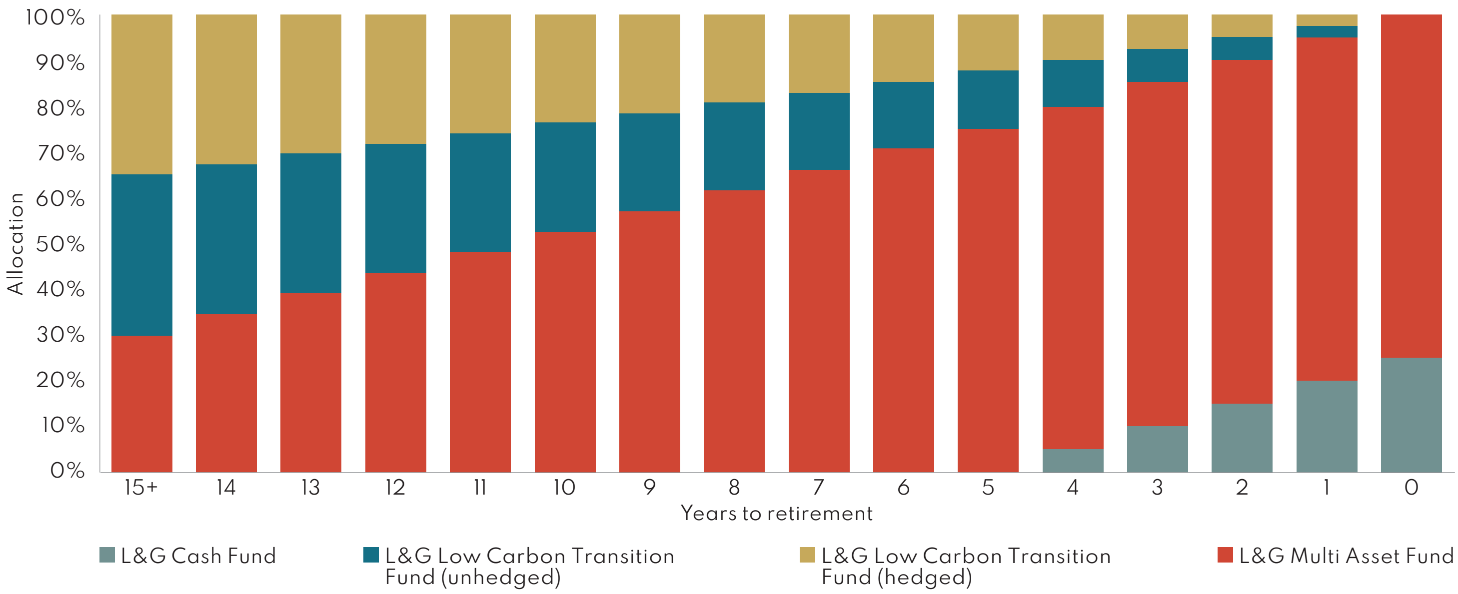
Open Fund – DC Section

The majority of DC assets are invested in the default strategy as shown in the table below. Assets in the default strategy are allocated to funds depending on members' target retirement dates. As at 31 March 2023, 92% of members were invested in the default strategy. The other members have chosen to invest in a range of self-select funds. The asset sizes of each asset category as at 31 March 2023 are as follows:

Asset Funds	£	%
Multi-asset	16,423,343	46
Low-carbon Equity	16,235,564	46
Cash Funds	1,254,693	3
Global Equity	1,216,649	3
Ethical Equity	699,363	2
Over 5 Year Index Linked Gilts	108,366	0
Islamic Equity	45,047	0
Over 15 Year Gilts	42,686	0
Corporate Bonds	32,284	0
Total	**36,057,995**	**100**

The Trustee has only collected metrics for the Multi-asset and Low-carbon equity funds, as it was not felt proportionate to monitor metrics for the other funds because they are small in comparison with the Multi-asset and Low-carbon equity funds. This is in line with the guidance issued by the Department for Work and Pensions.

DC Default Fund Asset Allocation



Open Fund – DC Section Data Coverage

Asset class (% DC assets)	Details of missing data or estimations
Low carbon equity (46%)	See Appendix 4
Multi-asset (46%)	

Open Fund – DC Section Metrics

Manager, asset class and valuation (£m)	Scope 1 and 2 emissions			Scope 3 emissions			Portfolio alignment	Data source – See Appendix 4	Date of portfolio value and data
	Data coverage (%)	Total GHG emissions (tCO2e)	Carbon footprint (tCO2e /£m)	Data coverage (%)	Total GHG emissions (tCO2e)	Carbon footprint (tCO2e /£m)	Proportion with SBTi target (%)		
L&G – Low carbon equity (£16m)	99.4	508	18	99.4	6,141	223	38.5	MSCI	Value – 31/3/23 Data – 23/1/23
L&G – Multi Asset Fund (£16m)	70.8	819	81	70.6	4,526	449	23.2	MSCI	Value – 31/3/23 Data – 28/1/23

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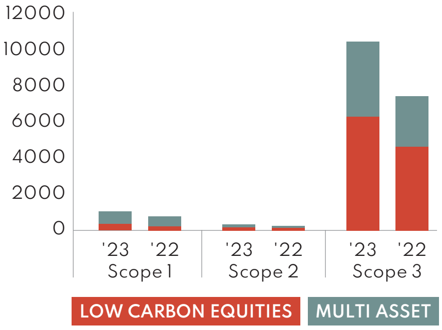
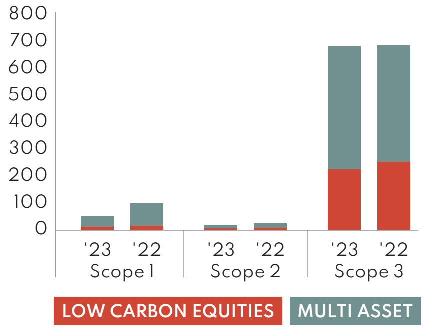
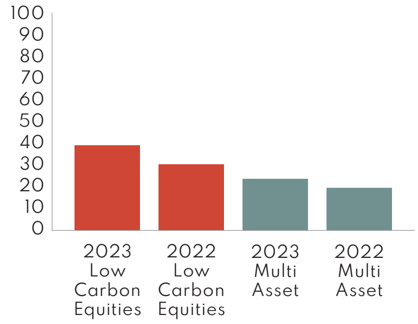
Total GHG emissions (tCO2e)

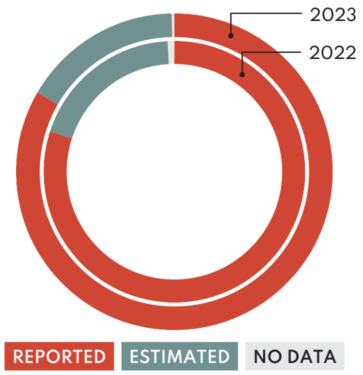
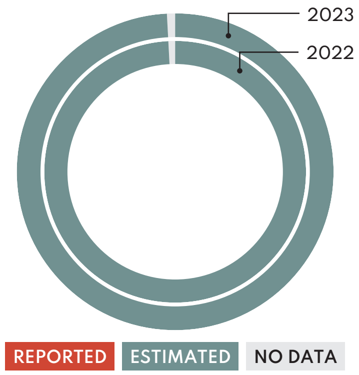
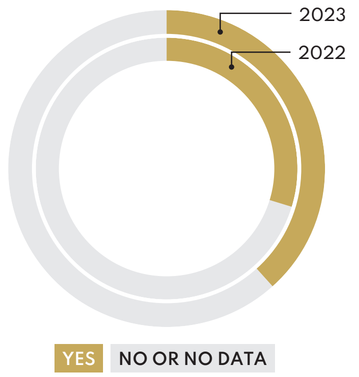
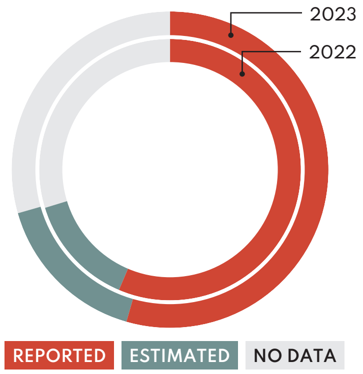
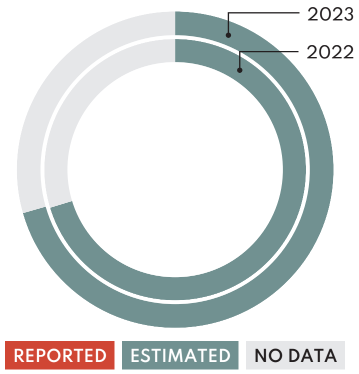
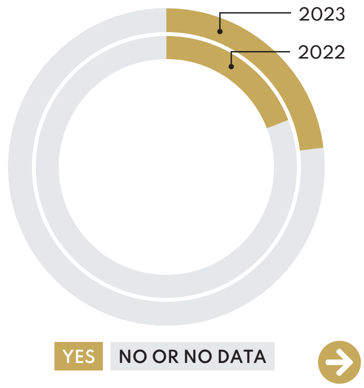


Carbon footprint (tCO2e/£m)



Proportion with SBTi targets (%)



Manager, asset class and valuation (£m)	Scope 1 and 2 emissions data coverage	Scope 3 emissions data coverage	Emissions targets coverage (SBTi)
L&G – Low carbon equity (31/3/22 – £17m)			
L&G – Multi Asset (31/3/22 – £15m)			

Closed Fund

Closed Fund asset allocation
31 March 2023

EQUITIES CORPORATE CREDIT
GOVERNMENT BONDS AND LDI BUY-INS

Closed Fund – Data Coverage

Asset class (% assets)	Details of missing data or estimations
Equities (7%)	See Appendix 4
Corporate Credit (8%)	
Government bonds and LDI (35%)	Calculations are based on Total UK GHG emissions per £ of government debt (tons/£m) where Scope 1+2 emissions are calculated on a production basis and Scope 3 emissions are for imports (per DWP guidance).
Buy-in (50%)	Buy-in assets are expected to comprise largely public debt (both corporate credit and government) and private holdings. The insurer's emissions calculations largely consider corporate debt only (public & private) and they have excluded government absolute emissions calculations as part of their summarised metrics. This methodology differs to guidance offered by the DWP and calculations for the Fund's other gilt-based holdings. Consequently data reported for buy-in assets is not directly comparable with other assets classes/holdings.

Closed Fund – Metrics

Manager, asset class and valuation (£m)	Scope 1 and 2 emissions			Scope 3 emissions			Portfolio alignment	Data source – Appendix 4	Date of portfolio value and data
	Data coverage (%)	Total GHG emissions (tCO2e)	Carbon footprint (tCO2e/£m)	Data coverage (%)	Total GHG emissions (tCO2e)	Carbon footprint (tCO2e/£m)	Proportion with SBTi target (%)		
BlackRock – Global equity (£11m)	99.7	189	20	99.7	2,256	248	40.7	MSCI	Value – 31/3/23 Data – 1/2/23
BlackRock – Corporate credit (£11m)	75.9	691	94	75.9	2,204	301	42.0	MSCI	Value – 31/3/23 Data – 20/1/23
BlackRock – Index-linked Gilts (£49m)	100.0	8,743	181	100.0	5,270	109	N/A	BlackRock	Value – 31/3/23 Data – 30/9/22
PIC – Buy-in (£72m)	63	4,401	100	35	9,553	425	5	PIC	Value – 31/3/23 Data – 31/12/22

N/A – data not available. The overall impact of the unavailable data is uncertain, and the Funds will continue to work with the investment managers and buy-in providers in future to help make this data available.

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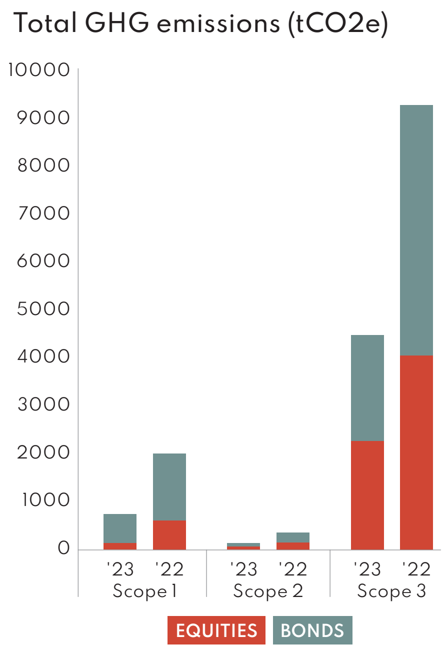
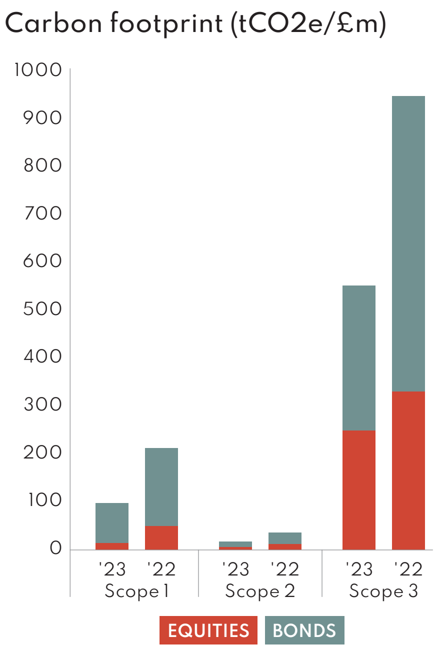
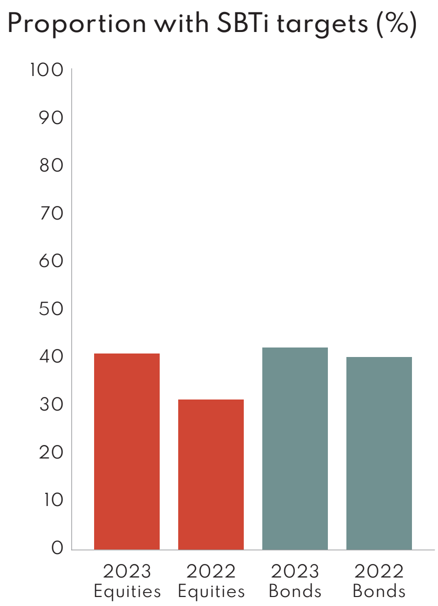
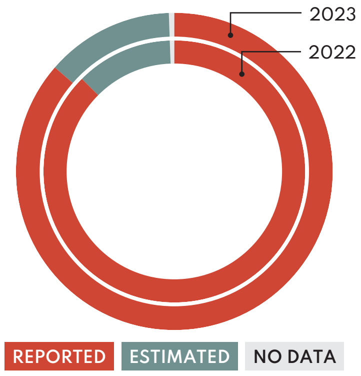
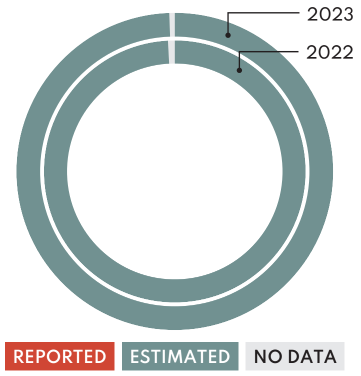
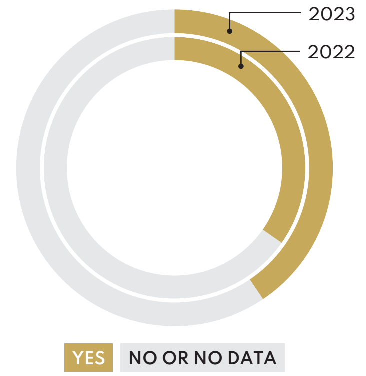
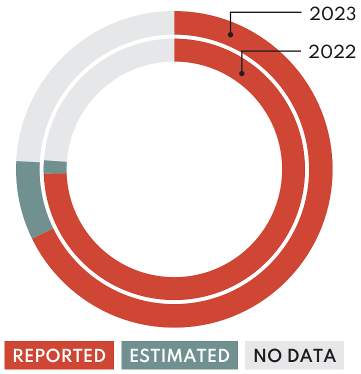
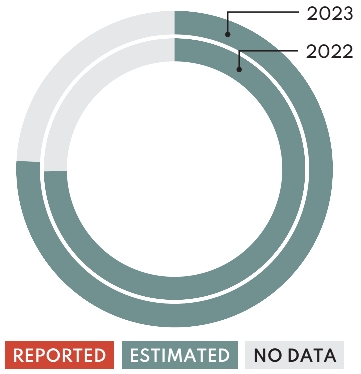
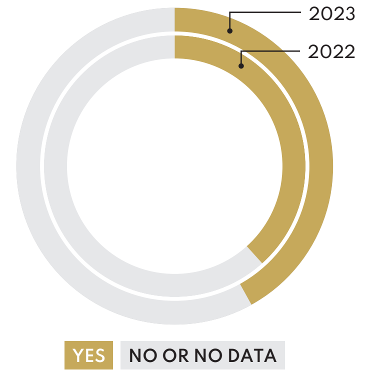






Manager, asset class and valuation (£m)	Scope 1 and 2 emissions data coverage	Scope 3 emissions data coverage	Emissions targets coverage (SBTi)
BlackRock – Global equity (31/3/22 – £13m)			
BlackRock – Corporate credit (31/3/22 – £10m)			

5.3 Target used by the Funds to manage climate-related risks and opportunities and performance against targets.

The Trustee has set the following target:

Target	Open Fund DB Section	Open Fund DC Section	Closed DB Fund
At least 75% of listed equity and corporate bond investments to have set SBTi targets by 2030	Listed equities and corporate bonds (28% of total invested DB assets)	Listed equities and corporate bonds (51% of total DC assets)	Listed equities and corporate bonds (30% of total invested DB assets)

Initial performance against the target

The climate reporting carried out for the Funds during the year included an assessment of the current alignment with the above target. The weighted averages of the Funds' listed equity and corporate bond investments that have set SBTi targets by 31 March 2023, based on information held on the MSCI database, and assuming that no other portfolio companies have set SBTi targets, are as follows:

Target	Open Fund DB Section	Open Fund DC Section	Closed DB Fund
75% by 2030	2023 – 37.7% 2022 – 30.0%	2023 – 30.8% 2022 – 25.1%	2023 – 41.4% 2022- 36.4%

The proportion of each fund with set SBTi targets is broadly in line with a comparable relevant market index with similar characteristics. The Trustee has agreed upon the most appropriate equity and corporate bond funds upon which to focus their engagement, which are expected to result in the most significant improvement in the Funds' alignment with its target.

The following steps are being taken to achieve the target:

- The Trustee has communicated the target to each investment manager.
- Investment managers are routinely invited to present at Investment Committee meetings as part of the existing monitoring process. When meeting with any of the Funds' investment managers, the Trustee will ask the manager how they expect the proportion of portfolio companies with SBTi targets to change over time and encourage the manager to engage with portfolio companies about setting SBTi targets, prioritising those with the highest carbon footprint.
- The investment adviser encourages managers to support the goal of net zero emissions by 2050 or earlier and has published its expectations for investment managers in relation to net zero. This includes the use of effective voting (where applicable) and engagement with portfolio companies to encourage achievement of net zero. The investment adviser continues to engage with managers on this topic and will encourage them to use their influence with portfolio companies to increase the use of SBTi targets.
- The Trustee will review progress towards the target each year and consider whether additional steps are needed to increase their chance of meeting it. Also, to help achieve the target the Trustee switched the equity holdings in the DB Sections to low carbon equity funds during the year.

APPENDIX 1 – ITB PENSION FUNDS' CLIMATE RELATED RISK BELIEFS

Duty

Trustee has primary responsibility for managing climate risks to the Fund's assets, recognising this is a wider societal issue that investment managers, companies and governments also have responsibility for. The Trustee will delegate the implementation to the investment managers.

We want to follow best practice when it comes to regulatory requirements, rather than take a minimum compliance approach.

Assessing and managing climate-related risks and opportunities is both our legal duty and entirely consistent with protecting the long-term returns of the Funds and is therefore acting in the best long-term interests of our members.

Impact of climate risks at a strategic level

Climate risks will have an impact on the macroeconomic environment, impacting asset returns and funding assumptions.

Climate change represents a risk that could have some impact on investments in the Open Fund DB Section and Closed Fund and represents a material risk that could negatively impact investments in the Open Fund DC Section.

A collective failure by governments, companies and other actors to mitigate the transitional and physical risks associated with climate change would negatively impact investments in Defined Benefit and Defined Contribution pension schemes.

Appropriate treatment of climate related risks and opportunities is likely to improve outcomes for members through enhanced long-term returns and mitigation of downside risks.

Our fund managers should consider and mitigate climate risks and identify opportunities when selecting investments for our portfolios and inform us of their activities.

Climate-related factors will be given special attention when selecting managers since they are likely to be a source of better risk-adjusted returns.

Market pricing of climate risks and opportunities

Climate risks and opportunities are not likely to be properly priced into markets currently.

Specific beliefs for the Funds

The Trustee should reduce climate-related risk where practical to do so.

Investing in fossil fuels presents a significant risk to our investment portfolios especially over the long-term. Selective risk-based divestment from fossil fuels is appropriate for the Funds in the medium-term.

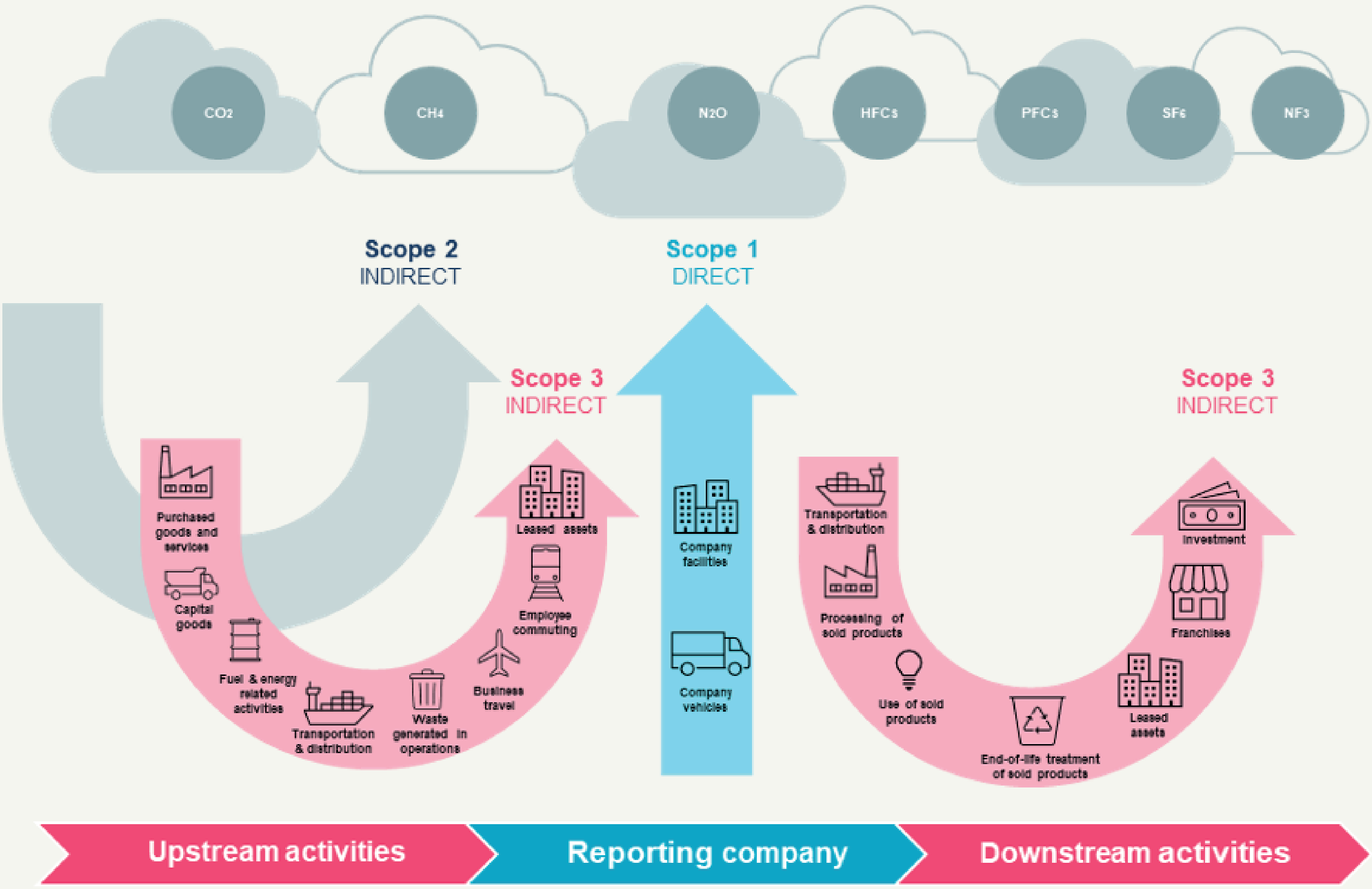
Engagement through the fund managers is an essential component in order to move to a low carbon economy.

APPENDIX 2 – GREENHOUSE GAS EMISSIONS EXPLAINED

Emissions metrics relate to seven greenhouse gases – carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF6) and nitrogen trifluoride (NF3). The figures are shown as "CO2 equivalent" (CO2e) which is the amount of carbon dioxide that would be equivalent to the excess energy being stored by, and heating, the earth due to the presence in the atmosphere of these seven greenhouse gases.

The metrics related to greenhouse gas emissions are split into the following three categories: Scope 1, 2 and 3. These categories describe how directly the emissions are related to an entity's operations, with Scope 1 emissions being most directly related to an entity's everyday activities and Scope 3 referring to indirect emissions in an entity's value chain. Scope 3 emissions often form the largest share of an entity's total emissions but are also the ones that the entity has least control over.

- Scope 1 greenhouse gas emissions are all direct emissions from the activities of an entity or activities under its control.
- Scope 2 greenhouse gas emissions are indirect emissions from electricity purchased and used by an entity which are created during the production of energy which the entity uses.
- Scope 3 greenhouse gas emissions are all indirect emissions from activities of the entity, other than scope 2 emissions, which occur from sources that the entity does not directly control.



Source: GHG Protocol

APPENDIX 3 – CLIMATE SCENARIO ANALYSIS MODELLING APPROACH

Modelling approach

The scenario analysis is based on the ClimateMAPS model developed by Ortec Finance and Cambridge Econometrics and was then applied to the Funds' assets and liabilities by the investment adviser, LCP. The three climate scenarios were projected year by year, over the next 40 years.

ClimateMAPS uses a top-down approach that consistently models climate impacts on both assets and liabilities, enabling the resilience of the Funds' funding strategy to be considered. The model output is supported by in-depth narratives that bring the scenarios to life to help the Trustee's understanding of climate-related risks and opportunities.

ClimateMAPS uses Cambridge Econometrics' macroeconomic model which integrates a range of social and environmental processes, including carbon emissions and the energy transition. It is one of the most comprehensive models of the global economy and is widely used for policy assessment, forecasting and research purposes. The outputs from this macroeconomic modelling – primarily the impacts on country/regional GDP – are then translated into impacts on financial markets by Ortec Finance using assumed relationships between the macroeconomic and financial parameters.

Ortec Finance runs the projections many times using stochastic modelling to illustrate the wide range of climate impacts that may be possible, under each scenario's climate pathway. LCP takes the median (i.e. the middle outcome) of this range of impacts, for each relevant financial parameter, and adjusts it to improve its alignment with LCP's standard financial assumptions.

LCP then uses these adjusted median impacts to project the assets and liabilities of the Funds to illustrate how the different scenarios could affect its funding level. The modelling summarised in this report used scenarios based on scientific and macro-economic data at 31 December 2020, calibrated to market conditions at 31 March 2021.

The Trustee discussed how future planned changes to the investment strategies for both schemes would change the analysis. For the DC Section, members' starting pots values were assumed to equal the average value for members of their age, and member and employer contributions were assumed to be paid in line with the current contribution structure. No allowance was made for changes to the investment strategy or contributions in response to the climate impacts modelled.

Modelling limitations

As this is a "top-down" approach, investment market impacts were modelled as the average projected impacts for each asset class, i.e. assuming that the Funds' investments are affected by climate risk in line with the market-average portfolio for the asset class. This contrasts with a "bottom up" approach that would model the impact on each individual investment held by the Funds'. As such, it does not require extensive scheme-specific data and so the Trustees were able to consider the potential impacts of the three climate scenarios for all of the Funds' assets.

In practice, the Funds' investments may not experience climate impacts in line with the market average. The Trustee considers, on an ongoing basis, how the Funds' climate risk exposure differs from the market average using climate metrics (which are compared with an appropriate market benchmark) and its bi-annual responsible investment review which considers the investment managers' climate approaches.

The Trustee notes that the three climate scenarios chosen are intended to be plausible, not "worst case", and the modelling is based on median outcomes. It therefore illustrates how the centre of the "funnel of doubt" surrounding DB funding and DC asset projections might be affected by climate change. It does not consider tail risks within that funnel, nor does it consider how the funnel might be widened by the additional uncertainties arising from climate change. In addition, only three scenarios out of infinitely many have been considered. Other scenarios could give better or worse outcomes for the Funds.

Uncertainty in climate modelling is inevitable. In this case, key areas of uncertainty relating to the financial impacts include how climate change might affect interest rates and inflation, and the timing of market responses to climate change. ClimateMAPS, like most modelling of this type, does not allow for all climate-related impacts and therefore, in aggregate, is quite likely to underestimate the potential impacts of climate-related risks, especially for the Failed Transition scenario. For example, tipping points (which could cause runaway physical climate impacts) are not modelled and no allowance is made for knock-on effects, such as climate-related migration and conflicts.

The Funds' currently have insurance contracts covering a significant proportion of the DB benefits payable to pensioners. As these contracts match the DB benefits payable to members, it has been excluded from the analysis. The Trustee considered qualitatively how insurance contracts might be affected by climate risk.

APPENDIX 4 – DATA SOURCED FROM MSCI

Emissions are attributed to investors using "enterprise value including cash" (i.e. EVIC, the value of equity plus outstanding debt plus cash).

The total GHG emissions figures omit any companies for which data was not available. For example, if the fund investment is worth £20m and emissions data is available for 70% of the fund by value, the total GHG emissions figure shown relates to £14m of assets and the fund's carbon footprint equals total GHG emissions divided by 14. In other words, no assumption is made about the emissions for companies without data.

The emissions target metric refers to the % of portfolio by weight of companies that have a near-term carbon emissions reduction target that has been approved by the Science Based Targets initiative (SBTi). Science-based targets provide a clearly defined pathway for companies to reduce greenhouse gas emissions which is in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to well below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C. Coverage is not available for this metric because the MSCI database does not distinguish between companies which do not have an SBTi target and companies for which the SBTi status is not known.

Emissions data coverage and quality

Where coverage of the portfolio analysed is less than 100%, this is because the MSCI database:

- Does not cover some holdings (e.g. cash, sovereign bonds, bonds that have recently matured, shares in companies no longer listed when the analysis was undertaken);
- Does not hold emissions data for some portfolio companies because the company does not report it and MSCI does not estimate it; and/or
- Does not hold EVIC data for some portfolio companies, so emissions cannot be attributed between equity and debt investors.

The last of these reasons is usually the main explanation for the fairly low coverage of bond portfolios.

Where emissions data is estimated, MSCI uses one of three methods.

- For electric utilities, MSCI's estimate of Scope 1 emissions is of direct emissions due to power generation, calculated using power generation fuel-mix data.
- For companies not involved in power generation, which have previously reported emissions data, MSCI starts with a company-specific carbon intensity model.
- For other companies, MSCI uses an industry segment-specific carbon intensity model, which is based on the estimated carbon intensities for 1,000+ industry segments.

For Scope 3 emissions, we have chosen to use MSCI's estimated emissions even where reported emissions are available. This provides greater consistency than using a mixture of reported and estimated emissions. Analysis of reported Scope 3 emissions suggests that the data quality is currently low: data is volatile and often out of date, with relatively few companies reporting on all types of Scope 3 emissions. In contrast, MSCI estimates all types of Scope 3 emissions for most companies in its database, for a recent reporting year and using a consistent approach.

MSCI is a leading provider of climate-related data, so we would expect the coverage to compare favourably with other data sources. Our investment adviser is engaging with MSCI to encourage them to improve EVIC coverage for debt issuers and to distinguish between companies which do not have an SBTi target and companies for which the SBTi status is not known.

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APPENDIX 5 – GLOSSARY

Carbon emissions –
These refer to the release of carbon dioxide, or greenhouse gases more generally, into the atmosphere, for example from the burning of fossil fuels for power or transport purposes.

Carbon footprint –
In an investment context, the total carbon dioxide or greenhouse gas emissions generated per amount invested (e.g. in £m) by an investment fund. Related definitions are used to apply the term to organisations, countries and individuals.

Climate change adaptation –
steps taken to adapt to the physical effects of climate change such as improving flood defences and installing air conditioning.

Climate change mitigation –
steps taken to limit climate change by reducing greenhouse gas emissions, for example by shifting to renewable sources of energy – such as solar and wind – and by using less energy and using it more efficiently.

Environmental, social and governance (ESG) –
an umbrella term that encompasses a wide range of factors that may have been overlooked in traditional investment approaches. Environmental considerations might include physical resource management, pollution prevention and greenhouse gas emissions. Social factors are likely to include workplace diversity, health and safety, and the company's impact on its local community. Governance-related matters include executive compensation, board accountability and shareholder rights.

Greenhouse gas (GHG) emissions –
gases that have been and continue to be released into the Earth's atmosphere. Greenhouse gases trap radiation from the sun which subsequently heats the planet's surface (giving rise to the "greenhouse effect"). Carbon dioxide and methane are two of the most important greenhouse gases. See also Appendix 1.

Net zero –
this describes the situation in which total greenhouse gas emissions released into the atmosphere are equal to those removed for example via man-made technologies (to capture carbon and store it) or nature-based solutions (such as the planting of trees). This can be considered at different levels, e.g. company, investor, country or global.

Paris Agreement –
the Paris Agreement is an international treaty on climate change, adopted by global governments in 2015. It covers climate change mitigation, adaptation and finance. Its primary goal is to limit global warming to well below 2°C, with ambitions towards 1.5°C, compared to pre-industrial levels.

Physical risk –
these are climate-related risks that arise from changes in the climate itself. They include risks from more extreme storms and flooding, as well as rising temperatures and changing rainfall pattens.

Science-Based Targets initiative (SBTi) –
an organisation that sets standards and provides accreditation for science-based targets set by companies and investors.

Scenario analysis –
a tool for examining and evaluating different ways in which the future may unfold.

Scope 1, 2 and 3 –
a classification of greenhouse gas emissions. See Appendix 1 for an explanation.

Stewardship –
stewardship is defined by the Financial Reporting Council as the responsible allocation, management and oversight of capital to create long-term value for clients and beneficiaries leading to sustainable benefits for the economy, the environment and society. It is often implemented via engagement with investee companies and exercising voting rights.

Stranded assets –
assets that have suffered an unanticipated loss of value before the end of their expected useful economic life. The term is most often applied to fossil fuel investments in the context of climate policy, where legislative and market developments may result in assets being worth less than the value recorded on company balance sheets.

Taskforce on Climate-related Financial Disclosures (TCFD) –
a group of senior preparers and users of financial disclosures from G20 countries, established by the international Financial Stability Board in 2015. The TCFD has developed a set of recommendations for climate-related financial risk disclosures for use by companies, financial institutions and other organisations to inform investors and other parties about the climate-related risks they face.

Transition risk –
these are climate-related risks that arise from the transition to a low-carbon economy and can include changes in regulation, technology and consumer demand.

APPENDIX 6 – POST YEAR END EVENT

On 21 July 2023 the ITB Pensions Funds entered into a buy-in insurance contract to insure all the remaining benefits of the Open Fund DB Section. This transaction changed the investment strategy of the Open Fund DB Section so that exposure to equity was reduced to nil and the allocation to corporate bonds and government bonds was reduced substantially. From 24 July 2023 the assets remaining in the Open Fund DB Section, apart from buy-in insurance policies, were held in corporate bonds, government bonds and cash funds.

As a result of this change the Trustee will review the Climate Related Risk Beliefs and whether climate change is a financially material factor for the Open Fund DB Section. The Trustee will review whether it is appropriate to re-run the climate scenario analysis for the Open Fund DB Section during the 2023/24 financial year, given the assets are now invested entirely in low-risk assets. Furthermore, the target of 75% of listed equity investments to have set SBTi targets by 2030 will no longer be applicable to the Open Fund DB Section, as it does not invest in equity after July 2023.