Yorkshire Building Society Pension Scheme

Defined Benefit and Defined Contribution Sections

Climate Change Report

July 2024

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Message from the Chair of Trustee

Thank you for taking time to read the 2023 Climate Change Report for the Yorkshire Building Society Pension Scheme (‘the Scheme’). Climate change continues to be an extreme challenge that requires significant worldwide cooperation and action. It presents us, as Trustee of the Scheme, with important responsibility for identifying, assessing and managing the risks and opportunities arising from climate change and their potential impact on the security of member’s pensions savings.

As the second iteration of the report, the Trustee has built upon the work undertaken for the first iteration last year. This report again details the processes and tools that the Scheme has used to assess and manage climate related risks and opportunities, including scenario analysis (section 3 of the report), climate metrics (section 5 of the report) and adapting existing risk management approaches (section 4 of the report). A summary of the key climate change metrics the Trustee is monitoring for the Defined Benefit (DB) and Defined Contribution (DC) sections is set out below.

	Defined Benefit (DB)		Defined Contribution (DC)	
	2023	2022	2023	2022
Total Carbon Emissions Excluding Sovereign Bonds (tonnes CO2e)	14,264	11,461[1]	18,270	22,721
Total Carbon Emissions – Sovereign Bonds only (tonnes of CO2e)	77,793	96,109[2]	3,939	3,256
Total Scope 3 emissions	86,486	N/A	158,448	N/A
Carbon Footprint – excluding Sovereign Bonds (tonnes CO2e/£M)	40.4	34.5[1]	84.2	102.7
Carbon Footprint – Sovereign Bonds only (tonnes CO2e/£M)	135.9	160.9[2]	112.6	97.4
Percentage of assets with approved Science based targets (%)	34.5%	22.2%	41.1%	38.2%
Data Coverage (%)[1]	73.3%	72.3%[3]	90.0%	90.3%

The Trustee Board is targeting an improvement in data quality, as measured by data coverage, with a view to potentially adopting a net zero target once the data quality is sufficiently high. Whilst the data coverage only increased marginally over the year for the DB Section and reduced for the DC Section, as the Scheme is now also measuring Scope 3 emissions it has improved data quality in this manner.

Within the reporting, whilst not strictly required by the regulations, we have chosen to display metrics for all the Scheme’s DC fund investments to allow DC members of the Scheme to understand the potential impact their investments have on the world, these can be found in Appendix A of the report.

As a Trustee board we recognise that we are acting on behalf of the Scheme’s members, so it is important to us that members reach out with any questions or comments Caroline Cheetham – Secretary to the Trustee, via email at ccheetham@ybs.co.uk.

Inder Dhingra

Inder Dhingra, Chair of the YBS Pension Scheme Trustees

[1] DB data coverage is weighted by investment manager allocation as at 31 December 2023 and excludes PIC.

Section 1: Introduction

The Yorkshire Building Society Pension Scheme (the "Scheme") is subject to the requirement to produce disclosures in line with the recommendations of the Task Force on Climate Related Disclosures (TCFD), as transposed into UK law in 2021. The aim of the TCFD disclosures is to improve and increase reporting of climate-related financial risks and opportunities.

The TCFD framework requires disclosures in four key areas:

- **Governance** around climate-related risks and opportunities
- **Strategy:** the actual and potential impact of climate-related risks and opportunities to the scheme
- **Risk management:** how the scheme identifies, assesses and manages climate-related risks
- **Metrics and targets:** the metrics and targets used to assess and manage climate-related risks and opportunities.

This report sets out the Scheme's approach to sustainability/net zero transition in each of these four areas for both the Defined Benefit (DB) and Defined Contribution (DC) sections.

Pillar	Recommendation	Where this is covered in the report
Governance	• Describe the board's oversight of climate related risks and opportunities • Describe management's role in assessing and managing risks and opportunities	Section 2.1 The Trustee's oversight of climate related risks and opportunities Section 2.2 Management's role in assessing and managing risks and opportunities
Strategy	• Identify risks and opportunities in the Pension Fund in the short, medium and long term • Describe their impact on strategy • Describe the resilience of the strategy under different climate scenarios, including one 2 degrees or lower	Section 3.1 Identification and assessment of climate-related risks and opportunities relevant to the Schemes Section 3.2 Describe the resilience of the organisation's strategy, taking into consideration different climate related scenarios including a 2°C scenario Section 3.2 Describe the resilience of the organisation's strategy, taking into consideration different climate related scenarios including a 2°C scenario
Risk Management	• Describe processes for identifying and assessing climate risks • Describe the risk management process • Describe how climate is integrated into the overall risk management framework of the scheme	Section 4.1 Processes for identifying and assessing climate risks Section 4.2 Risk management process Section 4.3 Integration of climate into the overall risk management framework of the scheme
Metrics and targets	• Disclose metrics used to assess climate risks and opportunities • Detail the scope 1/2/3 emissions and related risks • Describe the targets used by the scheme to manage climate risks and opportunities against these targets	Section 5.1 Metrics used by the Trustee Section 5.2 Greenhouse gas (GHG) emissions and the related risks Section 5.3 Targets used by the Trustee to manage climate-related risks and opportunities and performance against target.

Section 2: Governance

Overview of strategy, investment portfolio and supporting context and changes over the year

Over the past year the Scheme has made significant advances within the area of ESG (Environmental, social and governance factors) and Responsible Investment by building upon the progress achieved to date. The Scheme remains committed to playing its part in the wider Responsible Investment space by progressing towards the commitments set out in our climate targets. This ultimately contributes to the Trustee's primary objective of paying member benefits as and when they fall due.

What we've done:

- Increased engagement with investment managers and service providers to better understand how they integrate sustainability into their services and investments.
- Reviewing our ESG governance beliefs and formulating key stewardship priorities.
- Monitored our carbon emissions and data quality.

What actions we'll take:

- Refresh the climate scenario analysis following the completion of the triennial investment strategy review due to take place in 2024, ensuring we understand how robust our investment and funding strategy is to the risks of climate change, and what action we could take as a result.

- Continue to engage with our investment managers and advisors, pushing them to do all they can to engage with investee companies on climate change and drive for better alignment with net zero.

- Consider climate related risks and opportunities as part of the upcoming and ongoing investment strategy reviews for both the DB and DC sections.

Assets under management

As at 31 December 2023 the Scheme's DB assets had a value of c.£611m (including c.£7m cash) and was 95.4% funded on a solvency basis. The Scheme's strategic asset allocation at 31 December is listed in the table below. This is an interim position as the Scheme's strategy is in the process of being reviewed following the completion of the actuarial valuation.

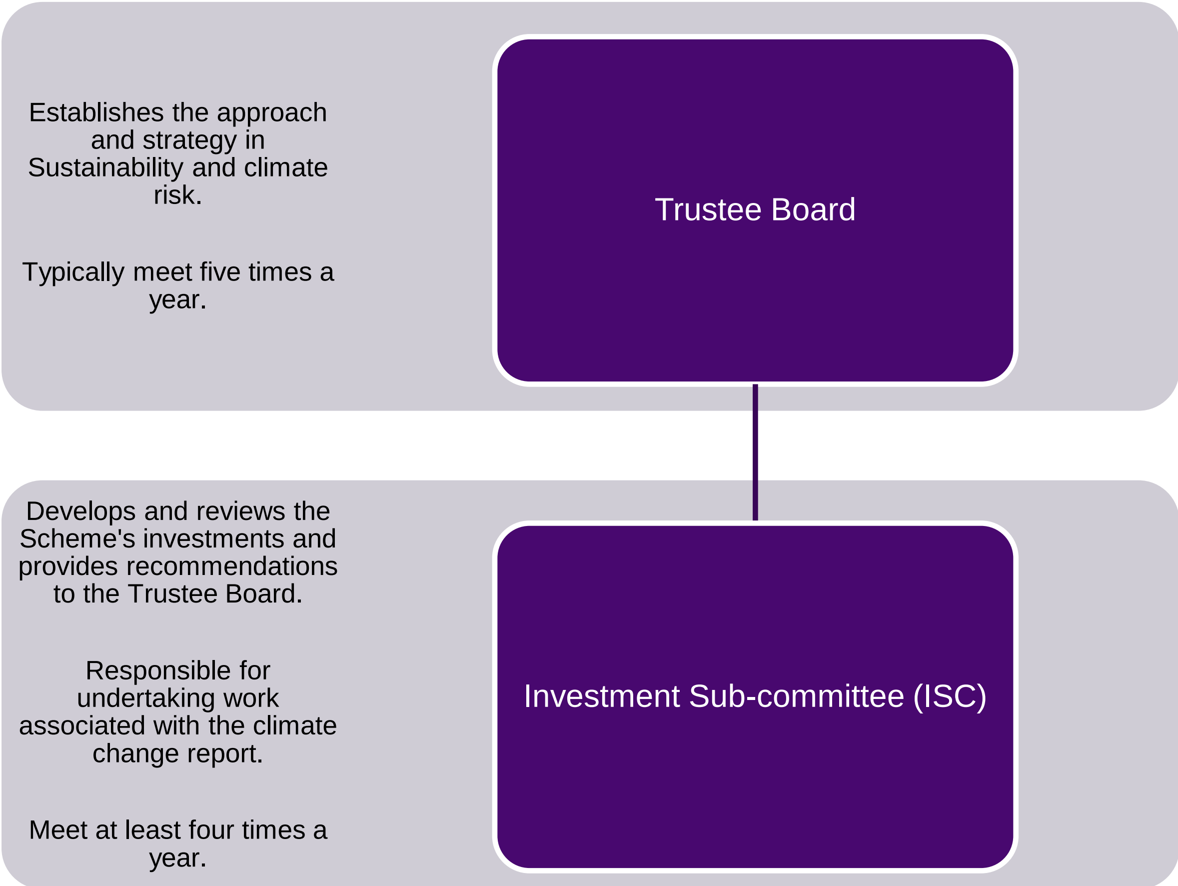
Asset class	Asset Allocation	Value (£m)
Insight Synthetic equities (exposure)	0.0% (6.0%)	3.0 (35.3)
Nephila Reinsurance	0.9%	1.8
AXA Buy & Maintain Credit	30.6%	202.0
BlackRock Strategic Alternative Investment Fund (SAIF)	11.4%	67.2
Insight LDI	28.9%	171.5
Buy-in	28.2%	158.5

The DC Section had £232m assets as at 31 December 2023 which were invested in the funds listed below. These funds make up both the lifestyle and freestyle funds offered to members of the Scheme.

Fund	Value (£m)
LGIM World ex UK GBP Hedged Equity Index Fund	45.8
LGIM MSCI Adaptive Capped ESG Index Fund	57.3
LGIM UK Equity Index Fund	5.7
BlackRock Emerging Markets Fund	7.6
LGIM Diversified Fund	89.4
LGIM Cash Fund	8.5
LGIM Pre-retirement Fund	6.6
LGIM index-linked gilts	7.4
HSBC Shariah Equity Fund	3.7

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

The Trustee of the Scheme ("the Trustee") maintains overall responsibility for investment matters which includes Sustainability and climate risk and has established the following structure for this oversight.



Requirements on the production of the annual climate change report will be the responsibility of the ISC. Decisions on climate-related matters are made by the Trustee who retains ultimate ownership and responsibility for the Scheme's integration and assessment of climate-related risks and opportunities.

The ISC and Trustee Board receive regular training around sustainable investing and climate change from the Scheme's advisers. They also have frequent discussions with the Scheme's investment managers and advisors on climate-related risks and opportunities. Ongoing training requirements are monitored as part of the Trustee's training log to ensure sufficient trustee knowledge and understanding.

The Trustee has developed beliefs and principles with regard to sustainable investing which were reviewed following a discussion of the results of a questionnaire completed by all Trustees in July 2023. The latest Statement of Investment Principles (the “SIP”), dated December 2023, explicitly covers climate change, including policies on sustainability, which form the basis for investment decisions and assessment of climate-related risks and opportunities. The Scheme’s Annual Implementation Statement (last updated March 2023) details any reviews of the SIP the Trustee undertakes, and documents any changes made to the SIP over each Scheme year as a result of the review. The Implementation Statement also details the Trustee’s adherence to all SIP policies and principles for both DB and DC sections as well as the approach and actions taken by the Trustee over each Scheme year to select and monitor the performance of investment managers including areas such as climate and sustainability. These beliefs are considered alongside the Trustee’s investment policies and are reviewed periodically. The Scheme’s governance beliefs include integrating sustainability into the Scheme’s investments to improve risk and return in addition to meeting regulatory requirements. The ISC’s Sustainable Investment beliefs are held in a document that is accessible to all Trustees.

The Trustees undertook a training session in March 2024 on Sustainability, within which a decision was made to focus on climate change and DEI (Diversity, Equity and Inclusion) as the Scheme’s stewardship priorities. These stewardship priorities influence the topics discussed with investment managers and the investment advisor on the subject of sustainability.

The Trustee believes that sustainability factors, including climate change, affect risk and return in the medium to long-term, and as such should be considered throughout the investment process when reviewing current and new investment opportunities.

2.2 Management’s role in assessing and managing risks and opportunities

It has been agreed that the following parties have specific responsibilities to assess and manage climate-related risks:

- The Trustee Board
- The ISC
- The investment managers

As set out in the SIP, to the extent possible, the Trustee will delegate the responsibility to take sustainability principles into account to its investment managers and will periodically review these policies with the assistance of its investment advisor through reporting or direct engagement with its investment managers as appropriate. The managers have produced statements setting out their policy in this regard and these are considered as part of manager assessments and selection by the ISC in the first instance and ultimately by the Trustee.

The Trustee has appointed WTW as its Investment Adviser to advise and assist the Trustee on all investment matters, including developing its climate-related investment policies in the context of the Scheme’s overall objectives and investment strategy. The Trustee expects its adviser to incorporate assessment and consideration of climate-related risks and opportunities as part of its ongoing role. As part of the annual assessment of the investment adviser against the strategic Investment Consultant Objectives, the Trustee also evaluates its investment advisor performance related to advice on sustainability and climate factors as part of its overall strategy considerations. As part of the annual sustainable investment review of the Scheme the Investment adviser also includes information about its own approach to sustainable investment, including climate change, in its advice and services provided to the Trustee. Overall, taking these factors into account, the Trustee is confident that the Investment adviser is well qualified to support and advise the Trustee on the risks and opportunities associated with sustainable investment factors, including climate change.

The Trustee recognises that leveraging the scale of its Investment Adviser is a key way through which the Scheme can influence the wider industry on sustainability matters. To this end, the Trustee has requested information from the advisor on how they engage with investment managers and the wider industry. The Trustee has encouraged the Adviser to continue to pressure investment managers on behalf of the Scheme to improve their processes and management of assets from an ESG perspective.

The Trustee recognises that it is acting on behalf of the Scheme's members in relation to sustainability principles, and whilst the Trustee may not specifically ask for member views, it may re-visit this from time-to-time as deemed appropriate.

The Scheme's investment adviser is responsible for the preparation of reports for the Trustee to allow it to assess the Scheme's investments, including climate-related risks and opportunities. Additionally, oversight includes at least annual engagement by the ISC with all of the Scheme's investment managers on sustainable investing and climate topics. Such engagement was carried out at the manager due diligence days, held in March 2023 and again in March 2024.

Section 3: Strategy

3.1 Identification and assessment of climate-related risks and opportunities relevant to the Schemes

The Trustee has determined that climate change could have a significant impact on the holdings in the portfolios of both the Defined Benefit ("DB") and Defined Contribution ("DC") Sections if it is not properly managed. The Trustee has determined that these climate change risks fall into 2 categories:

- **Transition risks**: A transition risk is the indirect impact of changes in society to combat or adapt to climate change. This might include costs for business to meet new regulations or increase life expectancy due to healthier lifestyles. These impacts are likely to occur in the short and medium term.
- **Physical risks**: A physical risk is the direct impact of climate change such as flooded properties on the asset side or higher deaths due to extreme weather on the liability side. These impacts are more likely to occur in the medium and long term.

Climate change can lead to a variety of risks, opportunities and potential mitigating actions in the short, medium and long term. The Trustee has considered these, including suitable time frames for the DB section:

Time Frame	Key risk areas	Key risk exposures	Opportunities	Mitigating Actions
Short Term: 3 years - Covers latest triennial valuation and possible short-term investment changes following this	▪ Regulatory ▪ Reputational ▪ Transition	▪ Lack of compliance with regulatory requirements. ▪ Increased governance demands and time for the Trustee ▪ Policies misaligned with peers and/or sponsor. ▪ Equity and corporate bond holdings exposed to transition risks	▪ Climate aware investment strategies. ▪ Active management or tilted passive strategies. ▪ Impact investments	Mitigating some climate risk through the pensioner buy-in.
Medium Term: 6 years - Covers expected changes in climate change data quality and regulations. Also takes the Scheme to the end of current journey plan at 2028.	▪ Reputational ▪ Transition	▪ Policies misaligned with peers and/or sponsor. ▪ Equity and corporate bond holdings exposed to transition risks ▪ Impact on insurer pricing of climate risk if the Trustee were to pursue a buyout in the future. ▪ Early pricing of climate change and large transition costs. ▪ Impacts of climate change are a source of longevity volatility.	▪ Align strategy with insurers to marginally reduce cost of buyout, if the Trustee were to pursue a buyout in the future ▪ Opportunities in credit investments ▪ Impact investments	Engage with society to align strategies where possible.

Long Term: 18 years - In line with the duration of the Scheme's liabilities	▪ Transition ▪ Physical	▪ If the Trustee were to pursue a buyout in the future, the insurer is exposed to transition and physical risk through assets held and poor management may weaken insurers strength	N/A	Financial Services Compensation Scheme (FSCS) in place to protect members in the event the insurer is unable to pay member pensions.

And for the DC section:

Time Frame	Key risk areas	Key risk exposures	Opportunities	Mitigating Actions
Short Term: 0-5 years - Representative of the final de-risking phase for members.	▪ Regulatory ▪ Reputational ▪ Transition	▪ Lack of compliance with regulatory requirements. ▪ Increased governance demands and time for the Trustee ▪ Policies misaligned with peers and/or sponsor. ▪ Climate related shocks for older members who have built up a reasonable savings pot.	▪ Potential climate transition fund options.	▪ ESG fund solution within the International Equity fund (and therefore within the Lifestyle strategies), designed to better manage ESG risks, including climate-risks. ▪ The underlying fund used within the Diversified Investments fund also makes allocations to specific ESG solutions, for example forestry, timberland and farmland. This fund is also part of the Lifestyle strategies
Medium Term: 10-15 years - Representative of a member in mid-career with a medium-term time horizon to retirement.	▪ Reputational ▪ Transition	▪ Policies misaligned with peers and/or sponsor. ▪ Life expectancies of members may be materially impacted. This is a risk to members pre and post retirement	▪ Potential climate transition fund options.	
Long Term: 18 years - Representative of a member in the early stages of their career with a long-term time horizon to retirement.	▪ Transition ▪ Physical	▪ Younger members exposed to long run physical risks ▪ Life expectancies of members may be materially impacted. This is a risk to members pre and post retirement	• Life expectancies of members may improve.	

3.2 **Describe the resilience of the organisation's strategy, taking into consideration different climate related scenarios including a 2°C scenario**

In 2022 the Trustee carried out climate change scenario analysis in partnership with their investment and actuarial advisers. The analysis for both DB and DC Sections will be updated during 2024 once the strategy reviews for both Sections have been completed. Climate resilience will be considered as one of the factors influencing the construction of the portfolios as part of the strategy reviews.

The aim of this analysis is to assess the possible short, medium and long-term impacts of various risks on the Scheme's assets and liabilities, as well as on expected member outcomes for the DC Section. To perform the climate scenario analysis in 2022 four scenarios were considered, as summarised in the table below. The Trustee believes that the scenarios represent useful stress tests for the Scheme and are in line with its investment adviser's (WTW) core climate scenarios and therefore linked to regular strategy analysis conducted by the Scheme. As part of the evolution of the Scheme's climate risk assessment, consideration of a more extreme climate scenario will form part of the 2024 update of the analysis. These scenarios were compared to a base case scenario, which is that the climate change is currently priced into markets as a "business as usual" outcome but with no physical risk expected from climate change. The Trustee doesn't expect this base case scenario to be realistic or likely but has been used to provide comparison of the scenarios below to what is believed to be currently priced into markets. The Trustee is aware of the limitations of the climate scenario analysis, such as the reliance on third parties for the maintenance and reporting of accurate data, validation of our assumptions, and the information available at the date of the analysis.

	Lowest Common Denominator	Inevitable policy Response	Global Coordinated Action	Climate Emergency
Description	A "business as usual" outcome where current policies continue with no further attempt to incentivise further emissions reductions. Socioeconomic and technological trends do not shift markedly from historical patterns.	Delays in taking meaningful policy action result in a rapid policy shift in the mid/late 2020s. Policies are implemented in a somewhat but not completely co-ordinated manner resulting in a more disorderly transition to a low carbon economy.	Policy makers agree on and immediately implement policies to reduce emissions in a globally coordinated manner. Companies and consumers take the majority of actions available to capture opportunities to reduce emissions.	A more ambitious version of the Global coordinated action scenario where more aggressive policy is pursued and more extensive technology shifts are achieved, in particular the deployment of Negative Emissions Technologies at scale.
Temperature Rise	~3.5ºC	~2.0ºC	~2.0ºC	~1.5ºC
Renewable energy by 2050	30-40%	80-85%	65-70%	80-85%
Physical risk level	High	Low – Medium	Low – Medium	Low
Transition risk level	Low	High	Low – Medium	Medium

DB Analysis

The first part of the analysis examined the effect the climate scenarios had on the return drags for both assets and liabilities over the next 20 years, with the results outlined below. The numbers illustrate the finding that transition risks (which are assumed to occur in the first 10 years of the modelling) are likely to be more costly than physical costs due to the short time horizon of the Scheme and the fact that the Scheme will be materially de-risked by the time physical risks begin to kick in under the assumptions used in the model. There are potentially sizeable drags on returns from transition in both the Climate Emergency scenario and the Inevitable Policy Response scenario, with the physical costs from 10 years onwards less significant. From a financial perspective, the most harmful scenario to assets is therefore the Inevitable Policy Response scenario. The impact on the Scheme's liabilities has been calculated by modelling four different mortality outcomes, a large and moderate increase and decrease in life-expectancy before assigning a probability of each outcome in the scenarios above. The impact on the Scheme's liabilities are net of the pensioner buy-in policy.

The results below are not forecasts of the Scheme's funding position but are instead used to quantify potential outcomes under specific illustrative scenarios.

	Asset return drag p.a. (Years 1-5)	Asset return drag p.a. (Years 6-10)	Asset return drag p.a. (Years 11-20)	Expected year of full-funding	Expected funding level in 2028
Lowest Common Denominator	0.00%	0.00%	-0.06%	2028	100%
Inevitable Policy Response	0.00%	-0.67%	-0.03%	2032	99%
Global Coordinated Action	-0.08%	-0.08%	-0.03%	2028	100%
Climate Emergency	-0.27%	-0.27%	-0.03%	2031	99%

	Liability drag p.a. (Years 1-20)	Expected year of full-funding	Expected funding level in 2028
Lowest Common Denominator	-0.36%	2025	102%
Inevitable Policy Response	-0.17%	2027	100%
Global Coordinated Action	0.24%	2032	99%
Climate Emergency	-0.04%	2030	99%

However, the analysis above does not assess the impact of the potential for markets to price in the costs early. The affect that these could have on the Scheme's position is assessed in the shock analysis outlined below, which shows that they lead to a material impact on the deficit and thus the true risk to the Scheme is the early pricing of costs in high transition scenarios.

Scenario	Asset shock (£m)	Liability shock (£m)	Change in deficit (£m)	Immediate change in funding level
Lowest Common Denominator	-17	-59	-42	+5.0%
Inevitable Policy Response	-54	-28	+26	-3.3%
Global Coordinated Action	-22	+41	+63	-6.8%
Climate Emergency	-46	-7	+39	-4.7%

Conclusions

- The biggest risk to the Scheme is the early pricing of climate change impacts, potentially on top of large transition costs. This is demonstrated by the potential size of instantaneous shocks from the analysis and the impact they could have on the deficit and funding level, compared to the more muted impact on the long-term funding level which suggests climate change costs arising slowly through time is unlikely to have a major impact on the path to full-funding.
- The impact of climate change on liabilities, via the impact on mortality, is already partly managed through the buy-in. This means the asset risks facing the Scheme are greater, as demonstrated by bigger asset shocks in the shock analysis.
- Managing climate change risks is likely more of an implementation question than a strategic question. The Scheme already runs investment risk as part of the funding strategy and climate change risk is an extension of that overall investment risk. However, the size of the climate shocks is still material and so reducing climate change risk where possible is still valuable. For the Scheme this could be through continuing to assess the Scheme's investments and investment managers on their exposure to climate related risks and looking to achieve a full buy-in of the Scheme's liabilities within the desired timeframes, given the impact on the liabilities has the biggest total impact.
- The Trustee has not directly assessed the Scheme's covenant and Sponsor in relation to the climate scenarios above but have reviewed the conclusions and climate scenarios used by the Sponsor in their own regulatory assessment. When the scenario analysis is repeated in 2024, the Trustee will engage with the Sponsor to more explicitly consider the potential impact on the covenant as part of the analysis.

DC Analysis

The DC analysis focused on two different aspects to assess the impact that climate change could have on the Scheme:

- The impact climate change could have on fund values at retirement for three example members who are invested in the Flexible Lifestyle strategy (default) and the Lump Sum Lifestyle strategy.
- The potential income loss from a 1-in-20 shock to pension pot values.

In relation to the impact on replacement ratio, the projections under both strategies are anticipating that, for all four climate scenarios being analysed, the pension pot value at retirement will be worse than the current base case, apart from the member who is close to retirement under the Least Common Denominator scenario. These findings are summarised below. The results below are not forecasts of the Scheme's member pot size but are instead used to quantify potential outcomes under specific illustrative scenarios.

Flexible Lifestyle Strategy (default)			
Impact on replacement ratio (compared to base case)	**New joiner**	**Mid-career**	**Pre-retirement**
Lowest Common Denominator	-9%	-4%	0%
Inevitable Policy Response	-7%	-7%	-1%
Global Coordinated Action	-6%	-4%	-1%
Climate Emergency	-5%	-5%	-2%

Lump Sum Lifestyle Strategy			
Impact on replacement ratio (compared to base case)	**New joiner**	**Mid-career**	**Pre-retirement**
Lowest Common Denominator	-9%	-4%	0%
Inevitable Policy Response	-7%	-7%	-1%
Global Coordinated Action	-5%	-4%	-1%
Climate Emergency	-5%	-5%	-1%

When it comes to the potential income loss assessment, the anticipated one-year shock under both Lifestyle strategies is that, for all four climate scenarios, the pension pot value is subject to a relatively large shock for mid-career members. For members close to retirement the impact is not as high, although they are still be open to significant shock risk under the Inevitable Policy Response and Climate Emergency scenarios. The youngest members, who are assumed to be new joiners to the Scheme and will have built up only a very small pot in their first year, would see no material impact on their expected income under any shock scenario. These results are summarised in the tables below.

Flexible Lifestyle Strategy (default)			
Income loss from market shock as a percentage of salary	**New joiner**	**Mid-career**	**Pre-retirement**
Lowest Common Denominator	0.0%	-6.4%	-3.1%
Inevitable Policy Response	0.0%	-12.0%	-9.0%
Global Coordinated Action	0.0%	-5.8%	-3.6%
Climate Emergency	0.0%	-9.4%	-6.3%

Lump Sum Lifestyle Strategy			
Income loss from market shock as a percentage of salary	**New joiner**	**Mid-career**	**Pre-retirement**
Lowest Common Denominator	0.0%	-6.4%	-2.7%
Inevitable Policy Response	0.0%	-12.0%	-8.5%
Global Coordinated Action	0.0%	-5.8%	-3.3%
Climate Emergency	0.0%	-9.4%	-5.9%

Conclusions

- The overall climate change exposure of the default strategies is relatively limited, with no scenario resulting in a greater than 10% loss of the final pot size (compared to the base case) across the 3 example members, when we assume that the impact of climate change on asset values materialises as a drag on returns through time. Younger members are naturally more exposed than older members under these assumptions, to all scenarios, due to longer holding periods and the physical risks that are incurred further into the future.
- Mid-career and Pre-retirement members, however, are fairly significantly exposed to climate change costs if they materialise as a shock in a single year.

Section 4: Risk Management

4.1 Processes for identifying and assessing climate risks

The Trustee recognises climate change as a risk which cuts across the majority of the other risks faced by the Scheme, in that those risks may be impacted by the effects of climate change.

The Trustee's overall process is for the ISC to review climate risks reporting and feed these back to the Trustee board on an ongoing basis. This includes regular reviews of the risk register and Integrated Risk Management (IRM) risk framework. As part of this, the Trustee receives regular training on climate risk from its advisers and investment managers. In March 2024 the Trustee received training on ESG which included the potential ESG implications of different options on the investment strategy of the DB section, and these implications were evaluated as part of the strategy review. During this training, the Trustee also agreed stewardship priorities of climate change and DEI (Diversity, Equity and Inclusion).

The Trustee, in conjunction with its investment adviser, monitors and assesses the activities of the Scheme's investment managers with respect to climate-related risks and opportunities based on quarterly monitoring reporting and annual Sustainable Investment (SI) reporting. The aim of the SI reports is to assess how the Scheme's investment managers are performing in relation to ESG/SI integration. Climate is considered as part of wider sustainability factors in manager assessment and broader Scheme risks and the Trustee engages with managers around climate-related risks and disclosures where appropriate. Annual manager due diligence meetings are also carried out to monitor investment managers' processes around climate change and engage with them on climate related risks and disclosures.

The Trustee monitors the carbon exposure of the portfolio using a range of metrics including total carbon emission and carbon intensity, as a proxy for climate risk, and portfolio alignment with the objective of the Paris agreement. In addition to this, the Trustee also undertakes scenario testing and stochastic modelling to understand the potential impact on the DB and DC Scheme sections projected financial position of climate risk, taking into account potential impacts on both assets and liabilities as well as on expected member outcomes. Finally, the Trustee undertakes a qualitative assessment of the potential impact of different climate scenarios on the Sponsor's business, which will be provided on a regular basis.

4.2 Risk management process

To effectively deal with climate risks, the Trustee has adopted an internal control and risk management process. The process aims at identifying, measuring, monitoring and managing the main climate risks the Scheme has exposure to. Climate risk is managed in different ways according to the nature, duration, magnitude, and time horizon of the risk itself. The Trustee adopts a combined approach of both qualitative and quantitative analysis to assess climate risk, while taking into account and addressing different time horizons of short, medium, and long term and types of impacts.

Following the work of the Working Party last year, the management of identified climate related risks and opportunities has been incorporated into the ISC's activities. As the Trustee has adopted a data quality related target, the focus of the activities is on understanding the management processes of the Scheme's investment managers rather than seeking to improve a specific risk metric. At the annual due diligence days all the Scheme's managers are asked to present on climate related issues, with particular focus given to long dated investments such as the buy and maintain credit and the illiquid assets held in the SAIF with BlackRock. Management of sustainability related risks is viewed as crucial for the success of these assets. The ISC additionally receives quarterly reporting providing updates on climate risk metrics.

4.3 Integration of climate into the overall risk management framework of the scheme

Climate risk is considered among other significant financial risks listed in the Scheme's SIP and it is considered as part of the Scheme's annual scenario analysis. The Trustee require the incorporation of climate risks and opportunities into their investment process, thereby integrating climate change into traditional financial analysis. Both traditional risks and climate-related risks are discussed by the ISC and the Trustee regularly engage with the investment managers on such issues. For the Scheme's DB section, the Trustee aims to formalise processes around climate risk management into IRM report and the Scheme's risk register which considers the potential impact of both transition and physical risks.

The Trustee has discussed an integrated risk management framework where climate has formed a key part of the overall discussion of risk. The Scheme's risk management monitoring consists of the following:

Risk monitoring	Responsibility	Frequency
Scenario analysis	Investment advisor, Trustee	• Annual review as part of the Annual Risk Assessment and update analysis if material changes in DB or DC investment strategy, DB funding position, Scheme objectives or climate scenarios • Triennial update of the analysis
Sustainable Investment reporting	Investment advisor, Trustee	• Annual review
Manager due diligence meetings	Investment advisor, Trustee	• Annual meetings

Section 5: Metrics and Targets

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

The Trustee has agreed to report on the following metrics:

Metric	Definition	Rationale
Total Carbon Emissions (“tC02e”)	A measure of carbon emissions attributable to the Scheme.	Determined by the regulator.
Carbon Footprint (tCO2e / £ invested)	A measure of how many tonnes of CO2 emissions each million invested causes.	It provides a direct measure of absolute emissions, which ultimately impact global outcomes and provides a simple comparable measure across portfolios.
Percentage of assets with approved Science based targets (“SBTi”)	A forward-looking measure of the percentage of assets with targets validated by the Science-Based Targets Initiative.	It provides a consistent verification of a company’s alignment to the Paris agreement. At this stage the Trustee believes other methodologies are insufficiently robust due to the high sensitivity to the chosen methodology and assumptions.
Data coverage/quality	A measure of the proportion of the Scheme’s assets for which the Trustees have high quality audited data, proxied data, or no data at all.	The Trustee believes it is important to focus on data quality as the industry continues to develop. It also believes that improved data quality and coverage is an area that the Trustee can most influence its investment managers and improvements would allow better decision making on future carbon metrics.

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

This year our report includes disclosure of Scope 3 emissions, in addition to Scopes 1 and 2.

As of 31 December 2023, the following data on the metrics has been collected (with further detail provided in Appendix A):

	Defined Benefit (DB)		Defined Contribution (DC)	
	2023	2022	2023	2022
Total Carbon Emissions Excluding Sovereign Bonds (tonnes CO2e)	14,264	11,461[1]	18,270	22,721
Total Carbon Emissions – Sovereign Bonds only (tonnes of CO2e)	77,793	96,109[2]	3,939	3,256
Total Scope 3 emissions	86,486	N/A	158,448	N/A
Carbon Footprint – excluding Sovereign Bonds (tonnes CO2e/£M)	40.4	34.5[1]	84.2	102.7
Carbon Footprint – Sovereign Bonds only (tonnes CO2e/£M)	135.9	160.9[2]	112.6	97.4
Percentage of assets with approved Science based targets (%)	34.5%	22.2%	41.1%	38.2%
Data Coverage (%)	73.3%	72.3%[3]	90.0%	90.3%

Over the year, the total carbon emissions for the Scheme, excluding sovereign bonds, has increased for the DB section, with this predominantly being driven by the Scheme's buy-in provider and buy and maintain credit however, the overall total carbon emissions of the Scheme have decreased due to the drop in sovereign emissions. Similarly, the carbon footprint for the Scheme excluding sovereigns has increased while the sovereign carbon footprint has fallen. The percentage of assets with approved Science based targets has increased due to increases in this metric for both the buy-in provider and buy and maintain credit. Finally, the data coverage of the overall portfolio has improved driven by improved coverage in the Insight LDI fund.

For the DC Section of the Scheme, we saw a reduction in total carbon emissions excluding sovereigns, with most funds experiencing slight falls in emissions over the year. There was a small increase in total emissions for the sovereign bonds held by the Scheme driven by the LGIM Diversified Fund. The percentage of assets with approved Science based targets increased due to increases in the majority of assets held in LGIM funds. Finally, the data coverage of the overall portfolio has marginally decreased.

5.3 Targets used by the Trustee to manage climate-related risks and opportunities and performance against target.

The Trustee recognises that it will take time for managers, particularly those with more illiquid secure income mandates, to improve their reporting and data quality. Therefore, last year the Trustee agreed to target achieving 90% data coverage for total carbon emissions (excluding the insurance policy held with Pension Insurance Corporation ("PIC")) of the DB Section by December 2027. The Trustee has also agreed to target achieving 95% data coverage for total carbon emissions for the DC Section by December 2027, with the more ambitious target (compared to the DB Section) reflecting the better starting point. These targets include either actual or estimated data for scope 1 and 2 total carbon emissions. Over the past year the Trustee have seen only marginal change in the data coverage score for both the DB section and the DC section. Whilst it is disappointing that greater progress on data quality hasn't been made, the Trustee notes that there has been progress with the reporting of Scope 3 emissions which are now included in the climate report. The Investment Advisors on behalf of the Trustee will continue to engage with the investment managers on this to ensure that the Scheme remains on track to reach the targets set.

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[1] Insight figure includes investment in the Sterling Liquidity fund and Network Rail Bonds. Carbon footprint measure includes Network Rail Bonds calculated as tCO2e/Enterprise Value including cash.
[2] Insight figure includes funded gilts and gilts on repo and/or Total Return Swaps. Carbon footprint measure calculated as tCO2e / market value of gilts in issuance.
[3] DB data coverage is weighted by investment manager allocation as at 31 December 2023 and excludes PIC.

The Trustee has agreed to exclude the insurance policy held with PIC from the data target for the DB Section, as the nature of the insurance policy means that the Trustee does not have direct control or influence over the underlying investments held. The Trustee will continue to engage with the PIC on their climate related policies and disclosures and report on data that is provided.

The target will be revisited, and the Trustee may move to a carbon-based target in advance of 5 years as data quality improves. The Trustee believes that improving data quality is where it can have the most influence in the early years of disclosures and aim to improve transparency of climate reporting across the industry. The Trustee plans on achieving this target by further engaging with the Scheme's investment managers on improving data, setting out and monitoring the targets and metrics that it is pursuing, and encouraging and assessing progress at least annually. The Trustee also looks to work with its investment consultant to continuously put pressure on its investment managers on data improvement and progress towards its long-term target.

The Trustee has a long-term aspiration for the Scheme to target net zero in the future as data quality improves. As such, improvements in data quality will be monitored and the possibility of adopting an emission based target will be discussed in future years.

Appendix A: Metrics

The metrics and data in this Appendix have been provided by the Scheme's investment managers.

The following tables set out a breakdown of the data provided by the Scheme's investment managers as at 31 December 2023. The data reported is for the portion of the fund which is owned by the Scheme.

For purposes of comparison, the table also shows the equivalent figures (where available) from 31 December 2022 in brackets. We note BlackRock were unable to provide updated data for the SAIF this year and as such their figures are the same as in the previous year's report.

DB

	Percentage of the Total Scheme's Assets as at 31 December 2023	Total Carbon Emissions excluding sovereign bonds (scope 1 and 2) tCO_2e[1]	Total Carbon Emissions sovereign bonds only (scope 1 and 2) tCO_2e[1]	**Total Scope 3 Emissions**	Carbon Footprint tCO_2e/M£ excluding sovereign bonds	Carbon Footprint tCO_2e/M£ sovereign bonds only	% of assets with approved SBTi	Data Coverage[2]
Nephila Reinsurance	0.3%	Not available	Not available	Not Available	Not available	Not available	Not available	0%
AXA Buy & Maintain	32.9%	4,917 (5,623)	1,770 (4,002)	7,665	45 (55)	97 (203)	42% (38%)	62% (65%)
BlackRock SAIF[3]	11.0%	63 (67)	0	Not available	2.2	0	Not available	41%
Insight LDI	27.9%	140 (113)[4]	65,872 (86,683)[5]	Not Applicable	2.3 (1.6)[4]	178.6 (195.3)[5]	Not available	100% (94%)
PIC	26.3%	9,145 (5,659)	10,151 (5,424)	78,831	88 (59)	186.1 (145)	25% (5%)	55% (63%)

[1] Total Carbon Emissions have been calculated based on the value of assets for which data is available rather than pro-rating to reflect 100% of the assets.
[2] Data coverage is provided based on the total actual and estimated data for total carbon emissions including sovereign bonds. A further breakdown of data quality is found in the table below.
[3] BlackRock data as at 31 December 2021 due to data availability.
[4] Insight figure includes investment in the Sterling Liquidity fund and Network Rail Bonds. Carbon footprint measure includes Network Rail Bonds calculated as tCO_2e/Enterprise Value including cash.
[5] Insight figure includes funded gilts and gilts on repo and/or Total Return Swaps. Carbon footprint measure calculated as tCO_2e / market value of gilts in issuance.

DB – Data Quality

	Actual	Estimated	Not Reported
Nephila Reinsurance	-	-	100%
AXA Buy & Maintain	62.0% (64.5%)	-	38% (34.5%)
BlackRock SAIF	41.0%[1]	-	59.0%
Insight LDI	100% (94.1%)	- (0.10%)	- (5.8%)
PIC	51.2% (60.1%)	3.9% (2.9%)	45.0% (37.0%)
Total Scheme[2]	66.3% (68.9%)	1.0% (0.8%)	31.0% (30.3%)

DB – Derivative Exposure

	Total Carbon Emissions excluding sovereign bonds (scope 1 and 2) tCO2e[3]	Total Carbon Emissions sovereign bonds only (scope 1 and 2) tCO2e[1]	**Total Scope 3 Emissions**	Carbon Footprint tCO2e/M£ excluding sovereign bonds	Carbon Footprint tCO2e/M£ sovereign bonds only	% of assets with approved SBTi	Data Coverage[4]
Synthetic Equities (MSCI World)	1,945	0	14,564	33.9	0	43.8%	100.0%

[1] BlackRock data quality includes actual and estimated figures as BlackRock are unable to provide this breakdown.
[2] Total Scheme figures weighted by investment manager allocation as at 31 December 2023 and includes PIC.
[3] Total Carbon Emissions have been calculated based on the value of assets for which data is available rather than pro-rating to reflect 100% of the assets.
[4] Data coverage is provided based on the total actual and estimated data for total carbon emissions including sovereign bonds. A further breakdown of data quality is found in the table below.

DC

	Percentage of the Total Scheme's Assets as at 31 December 2023	Total Carbon Emissions excluding sovereign bonds (scope 1 and 2) tCO2e[1]	Total Carbon Emissions sovereign bonds only (scope 1 and 2) tCO2e[1]	**Scope 3 Emissions**	Carbon Footprint tCO2e/M£ excluding sovereign bonds	Carbon Footprint tCO2e/M£ sovereign bonds only	% of assets with approved SBTi	Data Coverage[2]
International Equity Investment Fund[3]	51.3%	3,655 (3,828)	0.0 (0.0)	34,150	80 (95.3)	38.9 (38.9)	50.3% (46.5%)	97.3% (96.4%)
LGIM World ex UK GBP Hedged Equity Index Fund[4]	40.0%	3,055 (3,286)	-	25.391	67.1 (83.4)	82.2 (81.3)	55.1% (50.8%)	98.3% (97.8%)
LGIM MSCI Adaptive Capped ESG Index Fund	50.0%	4,592 (4,786)	-	43,877	81.3 (97.5)	-	49.6% (45.9%)	96.7% (95.5%)
LGIM UK Equity Index Fund	5.0%	536 (641)	0.0 (0.1)	6,952	95.3 (131.8)	82.2 (89.1)	53.3% (57.3%)	92.7% (90.8%)
BlackRock Emerging Markets Fund[5]	5.0%	2,189 (1,770)	-		154.7 (132.4)	-	15.9% (7.6%)	99.3% (99.8%)
LGIM Diversified Fund	40.0%	6,906 (7,358)	3,088 (2,441)	46,251	100.2 (127.4)	211.8 (173.1)	30.0% (27.8%)	80.5% (82.1%)
LGIM Cash Fund		Not available	Not available		Not available	Not available	Not available	Not available
LGIM Pre-retirement Fund	2.9%	190 (176)	178 (156)		49.5 (50.1)	82.2 (90.6)	32.1%	76.7% (74.7%)
LGIM Index Linked Gilts	3.3%	-	673 (660)		-	82.2 (89.1)	Not available	100.0% (100.0%)
HSBC Shariah Equity Fund[5]	1.7%	80 (90)	-	Not available	20.3 (26.9)	-	52.0% (65.0%)	95.8% (100.0%)

DC - Data Coverage

	Actual	Estimated	Not Reported
International Equity Investment Fund[5]	91.9% (91.6%)	5.4% (4.8%)	2.7% (3.6%)

[1] Total Carbon Emissions have been calculated based on the value of assets for which data is available rather than pro-rating to reflect 100% of the assets.
[2] Data coverage is provided based on the total actual and estimated data for total carbon emissions including sovereign bonds. A further breakdown of data quality is found in the table below.
[3] Figures for the International Equity Fund are a weighted average using the underlying constituents and their current strategic asset allocation.
[4] LGIM data quality includes actual and estimated figures as LGIM are unable to provide this breakdown.
[5] Scope 3 emissions were unavailable for both HSBC and BlackRock as at 31 December 2023. They are working on putting in place the necessary frameworks to report on them next year.
[5] Figures for the International Equity Fund are a weighted average using the underlying constituents and their current strategic asset allocation.

LGIM World ex UK GBP Hedged Equity Index Fund [1]	94.7% (97.8% combined*)	3.6%	1.7% (2.2%)
LGIM MSCI Adaptive Capped ESG Index Fund[2]	90.6% (95.5% combined)	6.1%	3.3% (4.5%)
LGIM UK Equity Index Fund[2]	91.9% (90.8% combined)	0.5%	7.6% (9.2%)
BlackRock Emerging Markets Fund	82.4% (74.6%)	16.9% (25.2%)	0.7% (0.2%)
LGIM Diversified Fund[2]	66.9% (82.1% combined)	13.6%	19.5% (17.9%)
LGIM Cash Fund	-	-	100%
LGIM Pre-retirement Fund[2]	76.7% (74.7% combined)	0.0%	23.3% (25.3%)
LGIM Index Linked Gilts[2]	100.0% (100% combined)	0.0%	0.0% (0.0%)
HSBC Shariah Equity Fund	61.2% (52.1%)	34.5% (47.9%)	4.2% (0.0%)
Total Scheme[2]	81.1% (86.0%)	8.9% (3.1%)	10.0% (9.7%)

*Data coverage figures were not reported as a split between actual and estimated in last year's data.

[1] LGIM data quality includes actual and estimated figures as LGIM are unable to provide this breakdown.
[2] Total Scheme figures weighted by investment manager allocation as at 31 December 2023.