

# Airways Pension Scheme

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Climate change governance and reporting in line with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD)

Scheme year to 31 March 2023

# 1 Summary

# Executive Summary


This report has been prepared in line with the recommendations of the Taskforce on Climate-Related Financial Disclosure (TCFD), as required by regulation. The TCFD developed a framework to help public companies and other organisations disclose climate-related risks and opportunities.


This report covers the Scheme year dating from 1 April 2022 to 31 March 2023 and describes the activities and approach taken by the Trustee to understand the climate-related opportunities and reduce the risks to the Scheme related to climate change across the investments, the liabilities and, where relevant, the sponsor's (British Airways') covenant. The following points are a summary of the detailed report that follows:


- The Trustee revisited its investment beliefs in relation to Environmental, Social & Governance (ESG) issues and climate change specifically over the previous Scheme year.
  - The above beliefs were used to update the Trustee's Responsible Investment (RI) Policy in November 2021 and then again in November 2022 noting a priority theme of climate change that came out from the RI beliefs exercise and that the Trustee agreed.
  - Our governance structure includes specific roles, responsibilities and oversight regarding climate risks.
  - The Trustee works closely with, monitors, and challenges our investment manager, BlackRock, to ensure ESG considerations, including climate change, are fully integrated into all investment decision making and evidenced back to the Trustee.
  - We strongly believe in the role of engagement and working with invested companies, via the investment manager, as a way to facilitate real world decarbonisation.
  - We have carried out scenario analysis to consider how the climate-related risks and opportunities might affect the funding and investment strategy. The scenario analysis and portfolio alignment metric reported on in this report exclude the Scheme's insurance arrangements and reflect the assets under BlackRock management (c.£1.6bn as at 31 December 2022). The next slide summarises some of the results of our analysis.
  - We acknowledge that modelling such scenarios is challenging and the outcomes uncertain, so we are committed to reflecting latest industry views whenever we revisit climate scenario analysis.
  - The Scheme's overall risk management processes include consideration of climate change risk.
  - We have chosen four climate-related metrics to monitor through time, namely carbon footprint, carbon intensity, data quality and portfolio alignment. The portfolio alignment for the corporate bond mandate increased over the year to 31 December 2022. This latter metric is the proportion of investments with verified Paris-aligned or declared net-zero targets.
  - The metrics work for carbon footprint, carbon intensity and data quality allows for the Scheme's insurance arrangements.
  - We have set a climate-related target on the Buy & Maintain corporate bond mandate based on portfolio alignment.
  - We have recently changed the Scheme's investment advisors and considered the climate-change credentials of the investment advisors as part of the decision making process. New climate-related objectives will be considered later this year.
  - Given the de-risked position of the Scheme and the limited expected reliance on BA for future pension contributions, the Trustee has conducted a "light touch" assessment of when the ongoing covenant would become relevant for the funding and investment strategies. Given the limited relevance, the Trustee has concluded that no detailed consideration should be given to covenant-related risks and opportunities within this report. The Trustee also notes there is no legal requirement to take formal covenant advice as part of the preparation of a TCFD report, or compliance with climate change governance requirements more generally.
- Finally, this is a developing area of financial and risk analysis, and the Trustee will continuously review its approach and take appropriate advice from its professional external advisors.

# Executive Summary

Potential impact on 31/12/2022 portfolio from different warming pathway scenarios, based on available data<sup>1</sup>

	Temperature rise scenario		Risk Model	Funding change <sup>2</sup>
	Orderly Transition <sup>1</sup>	~1.5°C	Transition Risk model	-0.9% / (-£10m)
			Physical Risk model	-0.1% (-£2m)

	Temperature rise scenario		Risk Model	Funding change <sup>2</sup>
	Disorderly Transition <sup>1</sup>	~1.8°C	Transition Risk model	-0.9% / (-£11m)
			Physical Risk model	-0.1% (-£2m)

	Temperature rise scenario		Risk Model	Funding change <sup>2</sup>
	Failed Transition <sup>1</sup>	~3.3°C	Transition Risk model	n/a <sup>3</sup>
			Physical Risk model	-0.1% (-£2m)

## What does this tell us?



The scenario analysis and portfolio alignment metric reported on in this report exclude the Scheme's insurance arrangements and reflect the assets under BlackRock management (c.£1.6bn as at 31 December 2022).

Based on the analysis, the Trustee believes that the current funding and investment strategies are resilient to climate-related risks. The Trustee has adopted a low-risk strategy including high interest rate and inflation hedge ratios. Due to this, the funding impact from the different scenarios is not significant, as can be seen from the figures on the left-hand side.

BlackRock's climate scenario analysis helps in understanding risks and opportunities.

The Trustee understands that climate change risks could be material for the sponsor, British Airways. However, given the de-risked position of the Scheme the Trustee has conducted a "light touch" assessment of when the covenant would become relevant for the funding and investment strategies. Given the limited reliance on BA for pension contributions, the Trustee has concluded that no detailed consideration should be given to covenant-related risks and opportunities within this report.

The Trustee will continuously review its approach.

<sup>1</sup> These scenarios only capture some of the likely effects on the Scheme in each case. Temperature rise is relative to pre-industrial levels.

<sup>2</sup> The estimated impact on the Scheme's funding ratio based on assets under management with BlackRock and the BlackRock liability proxy. This liability proxy is based on the AVB + PP funding basis. The position shown is as a result of adjusting the present value of the current assets and liabilities. Note: the percentage change is based on the change in funding level calculated excluding the Scheme's assets and liabilities in respect of the buy-in with Legal & General and synthetic buy-in with Rothesay Life (described in this report as "excluding insurance transactions"). It also makes no allowance for the potential impact of climate change on demographic factors, in particular life expectancy as the Scheme has extensive hedging of longevity risk in place.

<sup>3</sup> The Failed Transition scenario is based on "Current Policies" which are assumed to be priced in to current markets from a transition risk perspective.

Source: BlackRock, December 2022. Readers are directed to the Disclaimers related to the scenario analysis in the Appendix.

Modelling includes the interest rate and inflation hedge ratios in place as at 31 December 2022, and is based on the BlackRock liability proxy adopted at the time of the analysis.

# Executive Summary



## Absolute Carbon Emissions<sup>1</sup> (tons CO<sub>2</sub> and equivalents)

BlackRock managed assets	
	31/12/2022
Gilts/Index-linked Gilts (scope 1 and 2)	139,212
Rest of BlackRock portfolio (scope 1 and 2)	75,725
Rest of BlackRock portfolio (scope 3)	348,848

Insurance Arrangements	
	31/12/2022
Reference Gilts backing the synthetic buy-in/longevity swap held with Rothesay Life (scope 1 and 2)	274,669
Bulk Annuity held with Legal and General (scope 1 and 2)	234,300



## Portfolio Alignment

Proportion of investments with verified Paris-aligned or declared net-zero targets - based on being SBTi <sup>3</sup> verified		
Binary Targets	31/12/2021	31/12/2022
Corporate Bond portfolio	31.7%	43.9%



## Carbon Footprint (Emissions Intensity)<sup>1</sup> (tCO<sub>2</sub>e/£m)

BlackRock managed assets	
	31/12/2022
Gilts/Index-linked Gilts (scope 1 and 2)	182.2
Rest of BlackRock portfolio (scope 1 and 2)	119.1
Rest of BlackRock portfolio (scope 3)	548.5

Insurance Arrangements	
	31/12/2022
Reference Gilts backing the synthetic buy-in/longevity swap held with Rothesay Life (scope 1 and 2)*	103.1
Bulk Annuity held with Legal and General (scope 1 and 2)	71.0



## Focus on data

For Absolute Carbon Emissions and Carbon Footprint there is reported data for **c.80%\*** of the Scheme's BlackRock managed assets.

Including estimated data this reaches **c.86%\***.

\*As at 31 December 2022 for Scope 1 and 2 emissions only, excluding insurance arrangements.



## Climate-Related Targets and progress

Target	<i>To increase the percentage of the issuers in the Buy &amp; Maintain Credit portfolio (weighted by market value) that have an SBTi-approved target to 75% by 2030</i>	
Baseline date 31/12/2022	Verified Target: % of the market value invested in issuers with verified SBTi targets	43.9%

<sup>1</sup>For BlackRock managed assets total portfolio emissions are split out between the Gilts and index-linked gilts within the Liability Matching Portfolio (i.e. sovereign bonds) and the remainder of the portfolio due to a difference in calculation methodology. Emissions are also split out for the different insurance arrangements due to differences in calculation methodology. The definitions of scope 1, 2 and 3 emissions are included within the Technical Section.

<sup>2</sup>These lists are not intended to be exhaustive.

<sup>3</sup>Refers to Science Based Targets Initiative

# 2 Introduction

# Introduction

## Dear Members

The Trustee of APS believes that climate change represents a long-term systemic risk. It recognises that climate risks can be financially material and need to be monitored and managed as the Scheme has a long-term payment horizon.

Identifying, assessing and managing climate-related risks and opportunities for the Scheme are strategic priorities carried out by the Trustee, with support from the British Airways Pensions team, the Trustee's investment manager and the Trustee's external advisors:

- Investment manager – BlackRock
- Actuarial advisor – WTW
- Investment advisor – Mercer until July 2023, Redington from July 2023
- Insurance Transaction advisor – WTW
- Legal advisor – Sackers

The Trustee implements its investment strategy using an Outsourced Chief Investment Officer (OCIO) model, in which the investment manager, BlackRock, is also the stewardship provider. The Trustee believes it is important to ensure that the investment manager proactively engages with investee companies to understand relevant climate-related risks and opportunities, and considers those risks and opportunities within its investment decision making processes

The Scheme's partnership with BlackRock is key in this process. BlackRock believes that the transition to a low carbon economy will impact macroeconomic trends, companies and portfolios, and hence dedicates significant resources to analysing and understanding climate-related risk and opportunities. This in turn informs the way it votes and engages with investee companies and issuers.

We have set out this report according to the framework suggested by the TCFD, covering the following key areas:

- **Governance**

This section outlines the Scheme's governance structure regarding climate-related risks and opportunities, including a breakdown of roles and responsibilities, implementation and oversight.

- **Risk management**

This section summarises the processes used by the Trustee to identify, assess, and manage climate-related risks.

- **Strategy**

This section covers the potential impacts of climate-related risks and opportunities on the Scheme's investment and funding strategy.

# Introduction

- **Metrics**

This section summarises the climate-related metrics which the Trustee has chosen to report for the Scheme and provides data for the investments held as at 31 December 2022. The data provided for carbon footprint, carbon intensity and data quality allows for the Scheme's insurance arrangements, whereas the data for the portfolio alignment metric excludes the insurance arrangements.

- **Targets**

The climate-related target chosen by the Trustee is provided in this section of the report. Progress over the reporting period will be included in future reports.

- **Technical Section and Additional Information**

There is a great deal of technical information required for climate analysis and reporting, and in order to keep the report accessible and relevant, we have included the more granular detail in the technical section of the report.

The APS Trustee believes the approach outlined in this report is consistent with its fiduciary duty to the beneficiaries of the Scheme. Further, this report fulfils the requirements of the Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021, which are themselves designed to align with the recommendations of the Taskforce on Climate-Related Financial Disclosures.

Further information about the Scheme, including the Statement of Investment Principles (SIP) and Responsible Investment Policy, can be found on the Scheme's publicly accessible website: [www.mybapension.com/aps](http://www.mybapension.com/aps)

A list of acronyms used in this report can also be found on the same website: <https://www.mybapension.com/aps/documents/responsible-investment>

## Wayne Phelan

Chair of the Trustee

Airways Pension Scheme



# **3 Governance**

# Governance

## Trustee Board

The Trustee Board has ultimate responsibility for all aspects of the management and strategy of the Scheme including climate change governance and reporting.

Climate change is not just an investment-related issue: there are wider implications covering both risks around the liabilities and, to the extent relevant to the Scheme, risks to the covenant of the sponsor. The Trustee maintains a Statement of Investment Principles (SIP), which details the key objectives, risks and approach to considering ESG factors, such as climate change, as part of its investment decision making. The document is reviewed regularly.

The Trustee also periodically reviews its investment beliefs, including those related to climate change, and ensures these are reflected in the investment and governance approach taken.

As the Trustee has decided there is no longer a requirement for a standing investment committee, the Trustee Board conducts the work of regular monitoring of climate risks and opportunities. The Trustee Board also undertakes to review annually the Scheme's Responsible Investment (RI) Policy including the approach to managing climate-related risks, with advice from the Scheme's investment advisor to ensure it remains aligned with best practice.

## Ongoing Governance Activity

Climate change has and will continue to be present on agendas at Trustee Board meetings. It will also be discussed within other agenda items as part of wider discussions on funding or investment strategy, or as part of the investment manager appointment and review discussions.

The Trustee is satisfied that the amount of governance time spent is reasonable and will allocate more time at future meetings if any analysis or wider industry research requires additional Trustee review and consideration. The Trustee questioned the information provided to them and, where appropriate, challenged BlackRock or advisors in the course of conducting its governance activities. For example, the Trustee challenged BlackRock and Mercer during discussions around setting the climate-related target with this topic and discussion extending into a further meeting.

## Investment Advisor

The Trustee's investment advisor (Mercer until July 2023 and then Redington from July 2023) provides ongoing advice on the investment strategy for the Scheme. This includes advice on managing and monitoring investment-related risks, including climate change. The investment advisor works closely with the Scheme's appointed investment manager, BlackRock, to understand the impact of any strategic asset allocation changes on the Scheme's exposure to climate-related risks and opportunities, questioning and challenging where required. Investment advisor representatives attend Trustee Board meetings when necessary. Previously, Mercer has provided the Trustee with training on climate change and the various components of TCFD during the Scheme year.

The Trustee reviewed its investment advisor over the year and as part of the decision-making process, it checked and interrogated the climate credentials of potential advisors.

# Governance

## Investment Manager

The investment manager, BlackRock, is responsible for the day-to-day implementation of the Scheme's investment strategy and RI Policy.

The investment manager provides quarterly and annual reporting to the in-house team and the Trustee, detailing the stewardship, engagement and voting activity conducted on behalf of the Trustee.

The Trustee has mandated that the investment manager must include consideration of ESG factors, including climate-related risks and opportunities, when making investment decisions, and the Trustee receives updates that includes consideration of ESG factors in the investment process.

BlackRock provides the Trustee with climate scenario analysis for the investments and liabilities of the Scheme when required by the Scheme or its advisors. BlackRock also provides climate-related metric data at least annually.

## Independent Investment Expert (IIE)

An IIE attends the investment section of Trustee meetings to provide support, expertise and input to the discussions, including in relation to climate change matters.

## Scheme Actuary

The Scheme Actuary considers the risk of climate change where relevant to the Scheme's funding strategy, including in respect of any potential effects on the mortality assumptions within the Scheme's liability measures.

## Covenant Advisor

Given the de-risked position of the Scheme and the limited expected reliance on BA for pension contributions, the Trustee has conducted a "light touch" assessment of when the ongoing covenant would become relevant for the funding and investment strategies. Given the limited relevance, the Trustee has concluded that no detailed consideration should be given to covenant-related risks and opportunities within this report. The Trustee does not have an appointed covenant advisor due to the limited reliance the Scheme has on BA's covenant.

## Insurance Transaction Advisor

The advisor, WTW, analyses the risks of climate change for different possible counterparties as part of any work on new insurance transactions.

## BA Pensions Executive

On behalf of the Trustee, the internal BA Pensions Executive team performs the day-to-day oversight function, challenging advisors and BlackRock and raising issues to Trustee Board, where appropriate.

The Trustee ensures the BA Pensions Executive team is equipped to perform this role by ensuring appropriate training is provided, via the in-house team's attendance at Trustee meetings.

## Advisor Review

In order to ensure that its advisors, including the investment and actuarial advisors are taking adequate steps to identify and assess climate risks, the Trustee sets objectives for its advisors, including ESG-related objectives where appropriate, and reviews these annually. New climate-related objectives for Redington will be considered later this year.

With regard to the investment manager, the BA Pensions Executive team conduct a quarterly review meeting with BlackRock, and the Trustee performs an annual review.

# Governance

## Implementation

Day-to-day implementation of the Scheme's investments including climate risk management, and the wider APS RI Policy is delegated by the Trustee to the investment manager, BlackRock. BlackRock is responsible for:

- Portfolio management, including individual decisions on the purchase, retention and/or sale of investments;
- The integration of climate change and other ESG risks when making investment decisions as required by the RI Policy, including conducting specific climate-related analysis where appropriate;
- Stewardship, including engagement with held or prospective companies intended to protect and/or enhance the value of the Scheme's assets. Where appropriate this will include ensuring that investee companies have appropriate climate-related policies and strategies in place;
- Climate-related scenario analysis where it has the potential to inform strategic decisions taken by the Trustee; and
- Production of annual ESG and climate specific reporting for the Trustee including portfolio metrics and analytics (such as emissions data) for monitoring and regulatory purposes.

## Oversight

Oversight of the implementation of the Scheme's RI Policy is carried out, on behalf of the Trustee, by the BA Pensions Executive team and investment advisor. Tasks include:

- Regular liaison with the BlackRock Strategic Client Delivery Team. Subject matter experts, such as representatives from the various BlackRock Investment Stewardship and Responsible Investment teams, are made available for deep-dive reviews where relevant;
- Reviewing data/analysis/reporting outside of the regular quarterly reporting cycle;
- Ensuring sufficient reports and analysis are available to meet the Trustee's climate-related obligations and objectives, as discussed in their quarterly meeting cycle; and
- Reviewing any developments in industry practice, and changes in legislation and regulation.

# Governance

## Training

Over the past two years, the Trustee has received a number of training sessions from Mercer and BlackRock on various topics, including:

- Climate-related risks and opportunities;
- The recommendations and requirements of TCFD reporting; and
- Climate-related metrics, scenario analysis and setting climate targets.

Several of these sessions included advisor recommendations, discussion, debate and ultimately resulted in key decisions being made, which feature in this report. The in-house team attending the meetings received the same training, in addition to joining industry events and with relevant staff keeping up to date with Continuing Professional Development (CPD) requirements.

## ESG beliefs

During the previous Scheme year, an interactive Trustee session on ESG beliefs was conducted by the Scheme's previous investment advisor (Mercer). The outcome of the discussion was to review the Scheme's RI Policy to ensure the policies remain consistent with the Trustee's ESG beliefs.

The session included a survey of the full Trustee Board, including questions around ESG themes and priorities, the sponsor's policies on sustainability, member views, and voting and engagement.

The Trustee considers its Stewardship Priorities in light of the latest Stewardship guidance. It also considers these against the latest BlackRock's Investment Stewardship (BIS) priority framework. The last time this was conducted it found a good mapping. The Trustee will in future re-confirm how the Trustee's priorities are aligned with BlackRock's. More information on the Scheme's stewardship activities is included in the Implementation Statement which can be found on the Scheme's publicly accessible website: <https://www.mybapension.com/aps/documents/index>

## Responsible Investment Policy

A number of changes were adopted by the Trustee as part of a revision of the Scheme's RI Policy. These changes included reference to climate change as a Trustee priority theme that came out from the last RI beliefs exercise.

“Environmental (including climate change), social and governance (“ESG”) issues are multifaceted and represent long-term systemic risks.

We recognise that ESG risks are financially material and need to be managed as we have a long-term payment horizon. We therefore seek to integrate ESG considerations into our decision-making and reporting processes across all asset classes.

Where consistent with our fiduciary duties, and applicable to our investment strategy, we will require our investment managers to actively engage and utilise their voting rights/engagement to drive up ESG standards in the organisations in which we invest.

”

Trustee RI policy

# 4 Risk Management

# Risk Management

## Processes for identifying, assessing and managing climate-related risks and integration within the Trustee’s overall risk management of the Scheme

A key part of the Trustee’s role is to understand and manage risks that could have a financially material impact on both the Scheme’s investments and the wider funding position and strategy. Climate change is one of the factors that the Trustee considers alongside other financially material risks that may impact the pension outcomes for members. This section summarises the primary climate-related risk management processes and activities of the Trustee Board. These help the Trustee understand the materiality of climate-related risks, both in absolute terms and relative to other risks that the Scheme is exposed to.

The Trustee Board prioritises the management of risks primarily based on the potential impact to the security of members’ benefits.

The Trustee also ensures that it is kept up to date with the latest developments regarding climate-related risks and opportunities, and undertook multiple training sessions during the Scheme year to 31 March 2023 that included climate change.

BlackRock uses its risk tools and provides outputs and outcomes of using those tools to the Trustee, as required. This helps the Trustee to identify existing and emerging climate-related risks. BlackRock has a key role in the management of climate-related risks and opportunities. The Trustee has mandated that the investment manager must include consideration of ESG factors, including climate-related risks and opportunities, when making investment decisions.

## Governance

The Trustee has documented its approach to ESG, including climate risk, into Scheme documents such as the **Statement of Investment Principles (SIP)** and the **Responsible Investment (RI) Policy**, which set out how investment climate-related risks are managed and monitored.

The Trustee maintains a **risk register** to monitor and mitigate financially material risks to the Scheme. A specific RI risk is included: *“Identification, assessment and management of environmental (including climate-related), social and governance factors on the Scheme’s assets, liabilities and investment strategy and regulatory compliance.”* The Trustee Board regularly monitors the risk register.

In addition to the risk register, the Scheme also has an **Integrated Risk Management (IRM)** framework, which looks at funding, investment and covenant risks holistically, including climate risk.

The risk register and IRM framework ensure climate-related risks are integrated into the Trustee’s overall risk management approach and considered in the context of all risks faced by the Scheme, prioritised accordingly.

The Trustee previously received Mercer’s Responsible Investment Total Evaluation (RITE) analysis, which provided an evaluation of how well the Trustee is integrating ESG considerations, including climate change, into its overall investment process.

## Strategy

The Trustee’s advisors are required to take climate-related risks and opportunities into account as part of the wider strategic advice provided to the Trustee. This includes highlighting the expected change in climate-risk exposure through proposed asset allocation changes. BlackRock will be required to carry out climate scenario analysis and monitor the progress of the investment strategy against climate related metrics.

Climate scenario analysis for the Scheme will be reviewed at least triennially or if there has been a material change to the strategic asset allocation, funding strategy or the scenario modelling approach. A summary of the Trustee’s latest climate scenario analysis is included in the next section of this report and is the primary tool to help the Trustee understand the materiality of climate-related risks and opportunities that could impact the Scheme over time.

# Risk Management

## Reporting

In order to better understand climate exposures, the Trustee has worked with BlackRock to obtain a regular delivery of a suite of climate-related reporting which is considered each quarter by the Trustee.

Following the Trustee's choice of metrics, BlackRock obtains climate-related data on the portfolio and delivers a report to the Trustee on an annual basis.

As the Trustee has established a target based on a specific metric, going forwards, BlackRock will provide regular detail on how the portfolio is progressing towards that target.

The Trustee, via the in-house team and investment advisor, monitor BlackRock's stewardship (voting and engagement) programme for the Scheme's assets. On a quarterly basis, the BA Pensions Executive team and investment advisor meets with BlackRock to discuss the voting and engagement activity for the period in question, and provides challenge where necessary. On an annual basis, the stewardship reporting is also presented to the Trustee, considered and challenged where necessary.

BlackRock provides the Trustee with its **Stewardship Annual Report**.

Under the *Occupational Pension Schemes (Investment and Disclosure) (Amendment) Regulations 2019*, the Trustee is required to produce an Annual Implementation Statement, setting out how the voting and engagement policies described in the Scheme's Statement of Investment Principles have been followed. These statements include detailed example case studies of BlackRock's engagement activity.

Current and previous implementation statements are included on the Scheme's public website: [www.mybapension.com/aps/home/index](http://www.mybapension.com/aps/home/index)



# Risk Management: Asset Manager Review

## Asset Manager Review

BlackRock's conviction is that sustainability risk – and climate risk in particular – is investment risk. As such it has identified a **Climate Focus Universe** of companies which are potentially exposed to climate-related risks.

The BlackRock Investment Stewardship team engages with companies to assess how material sustainability-related factors impact a company's ability to generate long-term shareholder returns.

In 2021, BlackRock expanded its focus universe to over 1,000 carbon-intensive public companies that represent 90% of the global scope 1 and 2 GHG emissions of their clients' public equity holdings with BlackRock.

Where BlackRock does not see enough progress, and in particular where there is a lack of alignment combined with a lack of engagement, BlackRock may use its vote against management and will flag holdings for targeted review and engagement where they believe they may represent a risk to performance.

Conversely, BlackRock believes companies that distinguish themselves in terms of their emissions trajectory, transition preparedness and governance will often represent opportunities.

Between 1 April 2022 and 31 March 2023 BlackRock engaged with 31 individual companies from the Climate Focus Universe held by APS. Management of climate-related risk was raised and discussed with those companies on 43 separate occasions.

The integration of ESG factors and specifically climate risk is fundamental to how the Trustee perceives risk within the investment portfolio.

To support the implementation of this risk management, BlackRock provides examples of ESG integration to the Trustee.

# Risk Management: Transition Risks and Physical Risks

## Climate Risks and Opportunities

The effects of climate change will be felt over many decades. The Trustee has considered two types of climate-related risks and opportunities in its climate scenario analysis:



### Transition risks and opportunities

This covers the potential financial and economic risks and opportunities from the transition to a low-carbon economy (i.e. one that has a low or no reliance on fossil fuels), in areas such as:

- Policy and legislation
- Market
- Technology
- Reputation

Risks include the possibility of future restrictions, or increased costs, associated with high carbon activities and products. There are also opportunities, which may come from the development of low-carbon technologies. In order to make a meaningful impact on reducing the extent of global warming, most transition activities need to take place over the next decade and certainly in the first half of this century.

### Specific Example

The Trustee considered the top 10 carbon-intensive bonds in the credit portfolio which account for 50% of the mandate's emission intensity (by sales). The Trustee noted 9 of the 10 most carbon intensive holdings were issued by companies that have verified SBTi targets that were 2 degree warming aligned (or lower), and considered the manager's reason for the holdings. This discussion and analysis formed part of the climate related target setting for the Trustee.



### Physical risks and opportunities

The higher the future level of global warming, the greater physical risks will be in frequency and magnitude. Physical risks cover:

- Physical damage (storms; wildfires; droughts; floods)
- Resource scarcity (water; food; materials; biodiversity loss)

Physical risks are expected to be felt more as the century progresses, though the extent of the risks is highly dependent on whether global net zero greenhouse gas emissions are achieved by 2050.

There are investment opportunities, for example in newly constructed infrastructure and real estate, that are designed to be resilient to the physical impacts of climate change, as well as being constructed and operated in a way that have low or no net carbon emissions. There are also opportunities for investment in those companies or industries that focus on energy conservation and resource efficiency.

# 5 Strategy

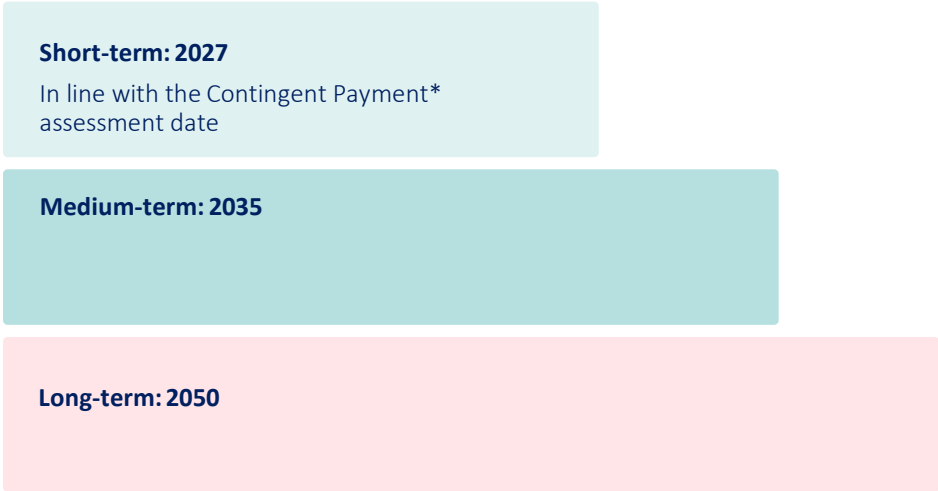
# Strategy: Time Horizons

## Strategy

ESG issues, including climate change, are multifaceted and represent long-term systemic risks. The Trustee recognises that ESG risks are financially material and need to be managed as the Scheme has a long-term payment horizon. The Trustee therefore seeks to integrate ESG considerations into its decision-making and reporting processes across all asset classes. ESG considerations are integral to the development of the Scheme’s investment strategy. As a core part of this the Trustee has reviewed scenarios for future development in climate change and their potential impact on the Scheme’s assets and liabilities. We recognise this is a first iteration, it is useful data for the Trustee and it will be developed further through time.

## Time Horizons

The Trustee has set its time horizons as follows:



**Short-term: 2027**

In line with the Contingent Payment\* assessment date

**Medium-term: 2035**

**Long-term: 2050**

## Short Term (Now to 2027)

- **Transition risks are greater than physical risks with moderate asset re-pricing risk** driven by:
  - Increases in private sector net zero commitments and clearer decarbonisation plans;
  - Perceived or real increased pricing of greenhouse gas emissions/carbon; and
  - Exposure to developing economies which have longer time horizons for country level phase down of fossil fuel usage.

## Medium Term (2027 to 2035)

- **Transition risks continue to dominate with heightened asset re-pricing risk** driven by:
  - Future warming pathways become clearer;
  - Market awareness grows and is better priced into asset valuations; and
  - Unexpected policy changes that surprise markets.

## Long Term (2035 to 2050)

- **Physical risks become increasingly important:**
  - Development of technology and low carbon solutions; and
  - Policy, legislation and regulation likely to also play a key role at the international, national and subnational level.

\*As defined in the 2019 Settlement Agreement

Readers are pointed to disclaimers for the scenario analysis found in the Technical Section

# Strategy: Impacts and Opportunities

## **Short Term (Now to 2027)**

The Scheme is exposed to climate-related risks through its allocation to private equity, alternatives and corporate bonds. The private equity and alternatives holdings are very small within the liquidation portfolio. For bond investments, even over this time period, where the issuer of the debt has made minimal effort to support the low carbon transition it may lead to a potential default or downgrade.

The current, low-risk investment strategy is mainly invested in high quality corporate bonds, government bonds and cash which the Trustee believes have low and/or manageable exposure to near-term transition risk.

## **Medium Term (2027 to 2035)**

The climate-related focus over the medium-term will turn to government bonds as well as the run-off of the buy and maintain credit portfolio as the Scheme continues its de-risking journey. The latter has 2032 as its longest maturity bond. Over the time period to 2032, for bond investments, where the issuer of the debt has made minimal effort to support the low carbon transition may lead to a potential default or downgrade.

Market surprises due to unexpected policy changes related to climate change could lead to asset price volatility and therefore funding level volatility. However, the Scheme has less exposure to market volatility compared to many other schemes given its low-risk investment strategy and this is expected to further reduce over time and the resilience of the funding strategy to climate-related risks is subsequently expected to improve.

## **Long Term (2035 to 2050)**

As the Scheme matures further, the Trustee may aim to further reduce investment risk with a view to providing the greatest security possible for members' benefits. The Scheme is expected to still have a low-risk investment strategy invested in government bonds and cash, which the Trustee sees as suited to a transition to a low carbon economy due to being more resilient to climate-related risk.

Physical risks are also expected to increase over the long-term without sufficient actions being taken, which may lead to investment opportunities in industries supporting the transition to a low-carbon economy, to the extent the Trustee will make such an investment decision. It is more likely that increasing physical risks will likely exacerbate any residual or tail risks still present. However, physical and transition risks could impact mortality and the Trustee will need to be aware of any potential impact on the Scheme's funding or its ability to transfer risk to the insurance market.

# Strategy: Climate Scenarios

Given the uncertainty around the timing and impact of climate-related transition and physical risks, the Trustee has considered a range of possible climate scenarios modelling different risks to test the resilience of the Scheme’s investment strategy and funding strategy. The purpose of scenario analysis is to better understand the risks and opportunities posed by climate change to the Scheme and to inform the Trustee’s strategy and investment decisions accordingly. They are hypothetical constructs, not forecasts, predictions or sensitivity analyses. The scenarios model the investment strategy in place as at 31 December 2022 and assume this is static over all time horizons. Longevity changes have not currently been built in quantitatively to the analysis. The scenario analysis does not include the Scheme’s insurance arrangements and is based on the assets under BlackRock’s management only. Links to Legal and General and Rothesay Life’s TCFD reports are included in the “Additional Information” section.

This report summarises three of these scenarios which present different trajectories, based on Network for Greening the Financial System (NGFS) representative scenarios:

1. **“Orderly Transition”** – this models **transition risk** and **physical risk separately** and the global average temperature increase is 1.5°C above pre-industrial levels.
  - The Trustee has chosen this as it meets the requirement of modelling a scenario of a temperature increase within the range of 1.5°C - 2°C above pre-industrial levels; and
  - Is in line with the Paris Agreement, a global government pact signed in 2015, designed to keep global warming below 2°C.
2. **“Disorderly Transition”** – this models **transition risk** and **physical risk separately** and the global average temperature increase is 1.8°C above pre-industrial levels.
  - The Trustee has chosen this as it represents a scenario that breaches the 2°C global average temperature increase; and
  - This scenario assumes that some corrective actions are taken but is a delayed transition starting in 2030.
3. **“Failed Transition”** – this models **physical risk only** and the global average temperature increase is 3.3°C above pre-industrial levels.
  - The Trustee has chosen this as it represents a scenario that breaches the 2°C global average temperature increase; and
  - This scenario assumes no corrective action to reduce emissions is taken and current policies are maintained.

31 December 2022	Transition Risk Change in Funding Ratio <sup>1</sup>	Physical Risk Change in Funding Ratio <sup>1</sup>
Orderly Transition	-0.9%	-0.1%
Disorderly Transition	-0.9%	-0.1%
Failed Transition <sup>2</sup>	n/a	-0.1%

## What does this tell us?



Based on the data available, all three scenarios have a **limited expected impact** on the Scheme’s funding position. In the context of the scenario analysis undertaken, the Trustee believes that the current funding and investment strategies are resilient to climate-related risks. The Trustee has adopted a low-risk strategy including high interest rate and inflation hedge ratios. Due to this, the funding impact from the different scenarios is not significant.

<sup>1</sup> The estimated impact on the Scheme’s funding ratio based on assets under management with BlackRock and the BlackRock liability proxy, based on the AVB + PP funding basis. The position shown is as a result of adjusting the present value of the current assets and liabilities. Note this does not include the Scheme’s insurance transactions.

<sup>2</sup> The Failed Transition scenario is based on “Current Policies” which are assumed to be priced in to current markets from a transition risk perspective.

The modelling may understate or overstate the true level of risk due to uncertainty around future economic impacts of climate change. In particular, it would not be appropriate to add together the impacts of a transition risk scenario and a physical risk scenario due to these being different models. Although the Trustee has evaluated the impact of transition and physical risk separately, it is conscious that it should take both into account. Analysis is developing in this area and the Trustee will review its scenarios in future reporting periods. The Technical Section of this report provides more detail on the modelling approach, along with the assumptions and limitations of the scenario analysis. **Source: BlackRock, December 2022. Readers are directed to the Disclaimers related to the scenario analysis in the Appendix.**

# Strategy: Climate Scenario 1 – Orderly Transition

**Overview:** BlackRock’s “Orderly Transition” scenario is based on the “Net Zero by 2050” pathway developed by the NGFS. Global warming is limited to c.1.5°C through stringent climate policies and innovation, with CO<sub>2</sub> emissions reaching “net zero” relative to pre-industrial levels in c.2050.

**Risk Factors:** Transition risk and physical risk factors. The impact of the Orderly Transition on the Scheme’s funding level has been considered over a single timespan over the lifetime of the scenario modelled. The model considers the impact of transition risk and physical risk factors separately to 2050, covering the Scheme’s short, medium and long-term time horizons.

**Narrative:** The main features of this scenario are higher carbon prices and taxes, higher end user energy prices and a changing energy mix (which are modelled out to 2050). Those companies which rely heavily on energy, utility and basic materials are most severely affected. The financial model also incorporates changing consumer behaviour, which impacts demand for goods and services.

**Outcome:** The estimated impact on Scheme funding from physical and transition risk under this scenario is small. The impact of physical risk is limited over the timeframe modelled, as an orderly transition reduces physical risk relative to other scenarios mainly from 2050 onwards. Transition risk in this scenario results mainly from UK inflation, which is expected to be driven higher in the short-term by rising carbon prices and an increase in government investment. Higher inflation increases the value of both the Scheme’s liabilities and to a slightly lesser extent its assets, with the impact in both cases being modestly offset by higher interest rates. Wider credit spreads are expected to have a small negative impact on the value of the Scheme’s buy and maintain credit portfolio. Due however to the Scheme’s high levels of interest rate and inflation hedging, the overall impact on Scheme funding as modelled is modest

This analysis has been conducted on the Liability Matching Portfolio only. Property, Alternatives, Private Equity and the insurance arrangements have been excluded, therefore the summary below may be underestimating the impacts on the overall strategy. The Property, Alternatives and Private Equity assets are excluded due to lack of data availability, in addition to being small Scheme holdings which are currently being liquidated. The table below shows the estimated impact on the Scheme of the Orderly Transition scenario.

	Assets*	Liabilities**	Surplus (Deficit)	Funding Ratio	Change in Surplus	Change in Funding Ratio
<b>Base, 31/12/2022</b>	£1,503m	£1,419m	£84m	105.9%		
<b>Orderly Transition – Transition Risk</b>	£1,560m	£1,486m	£74m	105.0%	-£10m	-0.9%
<b>Orderly Transition – Physical Risk</b>	£1,497m	£1,415m	£82m	105.8%	-£2m	-0.1%

\* Includes a negative adjustment for the value of the Scheme’s AVCs.

\*\* The Scheme’s assets and liabilities have not been adjusted for changes in longevity. Liabilities are on the AVB + PP basis but are based on the liability proxy value from BlackRock’s Aladdin system. This will not necessarily match the liability value produced by the Scheme Actuary. Note this does not include the Scheme’s insurance transactions.

Source: BlackRock, December 2022. The Technical Section contains more information about the scenario modelled as well as the assumptions and limitations.

# Strategy: Climate Scenario 2 – Disorderly Transition

**Overview:** BlackRock’s “Disorderly” scenario is based on the “Delayed Transition” pathway developed by the NGFS which assumes policy action is delayed until 2030.

**Risk Factors:** Transition risk and physical risk factors. The impact of the Disorderly Transition scenario on the Scheme’s funding level has been considered over a single timespan over the lifetime of the scenario modelled. The model considers the impact of physical risk factors and transition risk factors (separately) to 2050, covering the Scheme’s short, medium and long-term time horizons.

**Narrative:** This scenario assumes that the implementation of policies to ensure a transition to a low carbon economy is delayed until 2030. Carbon taxes are used to cut income tax, thus boosting private consumption. There is a negative shock to business confidence as stringent policies are introduced. Some corrective action is taken but temperatures still rise by 1.8 degrees by c.2100 relative to pre-industrial levels.

**Outcome:** The estimated impact on Scheme funding from physical and transition risk under this scenario is also small. The impact of physical risk is limited over the timeframe modelled, as an orderly transition reduces physical risk relative to other scenarios mainly from 2050 onwards. Transition risk in this scenario is delayed relative to that modelled under an orderly transition, with policy action impacting economies and markets mainly after 2030. Due however to the Scheme’s high levels of interest rate and inflation hedging, the overall impact on Scheme funding as modelled is modest.

This analysis has been conducted on the Liability Matching Portfolio only. Property, Alternatives, Private Equity and the insurance arrangements have been excluded, therefore the summary below may be underestimating the impacts on the overall strategy. The Property, Alternatives and Private Equity assets are excluded due to lack of data availability, in addition to being small Scheme holdings which are currently being liquidated. The table below shows the estimated impact on the Scheme of the scenario.

	Assets*	Liabilities**	Surplus (Deficit)	Funding Ratio	Change in Surplus	Change in Funding Ratio
<b>Base, 31/12/2022</b>	£1,503m	£1,419m	£84m	105.9%		
<b>Disorderly Transition – Transition Risk</b>	£1,529m	£1,456m	£73m	105.0%	-£11m	-0.9%
<b>Disorderly Transition – Physical Risk</b>	£1,497m	£1,415m	£82m	105.8%	-£2m	-0.1%

\* Includes a negative adjustment for the value of the Scheme’s AVCs.

\*\* The Scheme’s assets and liabilities have not been adjusted for changes in longevity. Liabilities are on the AVB + PP basis but are based on the liability proxy value from BlackRock’s Aladdin system. This will not necessarily match the liability value produced by the Scheme Actuary. Note this does not include the Scheme’s insurance transactions.

Source: BlackRock, December 2022. The Technical Section contains more information about the scenario modelled as well as the assumptions and limitations.

Note: Totals may not sum due to rounding



# Strategy: Climate Scenario 3 – Failed Transition

**Overview:** BlackRock’s “Failed Transition” scenario is based on the “Current policies” pathway developed by the NGFS.

**Risk Factors:** Physical risk factors only. Transition risk is not modelled as BlackRock makes the assumption that current policies are reflected in current asset prices. The impact of Failed Transition scenario on the Scheme’s funding level has been considered over a single timespan over the lifetime of the scenario modelled. The model considers the impact of physical risk factors to 2050, covering the Scheme’s short, medium and long-term time horizons.

**Narrative:** This scenario assumes that current policies are maintained, and that no additional corrective action is taken to reduce emissions is taken.

**Outcome:** The impact of physical risk is limited over the timeframe modelled, as an orderly transition reduces physical risk relative to other scenarios mainly from 2050 onwards. Due to the high levels of interest rate and inflation hedging the Scheme is relatively immune to changes.

This analysis has been conducted on the Liability Matching Portfolio only. Property, Alternatives, Private Equity and the insurance arrangements have been excluded, therefore the summary below may be underestimating the impacts on the overall strategy. The Property, Alternatives and Private Equity assets are excluded due to lack of data availability, in addition to being small Scheme holdings which are currently being liquidated. The table below shows the estimated impact on the Scheme of the scenario.

	Assets*	Liabilities**	Surplus (Deficit)	Funding Ratio	Change in Surplus	Change in Funding Ratio
<b>Base, 31/12/2022</b>	£1,503m	£1,419m	£84m	105.9%		
<b>Failed Transition – Physical Risk</b>	£1,497m	£1,415m	£82m	105.8%	-£2m	-0.1%

\* Includes a negative adjustment for the value of the Scheme’s AVCs.

\*\* The Scheme’s assets and liabilities have not been adjusted for changes in longevity. Liabilities are on the AVB + PP basis but are based on the liability proxy value from BlackRock’s Aladdin system. This will not necessarily match the liability value produced by the Scheme Actuary. Note this does not include the Scheme’s insurance transactions.

Source: BlackRock, December 2022. The Technical Section contains more information about the scenario modelled as well as the assumptions and limitations.

Note: Totals may not sum due to rounding

# Funding Strategy - Covenant

## **Impact of Climate-Related Risks for the Covenant of British Airways (BA)**

The Scheme is very well funded on a prudent basis. The Scheme also has a very low-risk investment strategy. Overall, the Scheme's funding position is very resilient to changes in investment markets and other external factors. This resilience has also been shown via the outcomes of the scenarios on the earlier pages. The Scheme is expected to have very limited reliance on BA's covenant for future pension contributions.

The Trustee has undertaken an initial assessment of the scenarios in which the ongoing covenant of BA would become relevant to the Scheme's funding and investment strategies again. The outcome of this is that additional funding from BA is only expected in a very low likelihood, very high impact scenario.

The Trustee therefore notes the lack of impact and has not considered covenant risks in detail within this report.

This adopted approach remains under review and will be updated as necessary, should the Scheme's expected level of reliance on BA change in the future.

## **Contingent Payment\* Scenario**

Note, even assuming the Contingent Payment is payable in full in 2027, the most significant funding obligation of BA to APS is likely to be the Contingent Payment of £40m in 2027. The Trustee considers it unlikely that a deterioration in ongoing sponsor covenant, for climate-change reasons, will arise in that time horizon which would result in the Contingent Payment becoming unaffordable.

## **NAPS TCFD Report**

NAPS published its first TCFD report in 2022. This report includes relevant BA covenant risk wording from a NAPS perspective. NAPS TCFD reports are available on the Scheme's website: <https://www.mybapension.com/naps/documents/responsible-investment>

# Funding Strategy - Actuarial

## Impact of Climate-Related Risks on the Liabilities of the Scheme

The modelling carried out by BlackRock under the Scenario Analysis considers the impacts on the liabilities\* by applying consistent economic stresses to those applied to the assets. However, BlackRock's model currently makes no allowance for the potential impact of climate change on demographic factors, in particular life expectancy. This approach has been taken because the Scheme's insurance contracts secured with Rothesay Life and Legal & General provide substantial protection against the Scheme's longevity risks and so any change in life expectancy as a result of changes in climate are unlikely to materially change the Scheme's funding position.

## Longevity Assumptions

The Trustee makes an assumption about how long Scheme members will live, and therefore how long pensions will be paid for, when assessing the amount of assets the Trustee requires to meet future benefit obligations. If a member lives longer, the Scheme pays the member's pension for longer and therefore needs more assets, to the extent the member's longevity risk is uninsured, to make the payments. Typically, the Trustee will review its assumption for future life expectancy every three years as part of the formal actuarial valuation. For funding purposes, the Trustee adopts mortality assumptions that it regards as prudent estimates of the life expectancy of members so that higher reserves are targeted in respect of the risk than are expected to be necessary.

## Climate-Related Impact

The impact of climate change on life expectancy is highly uncertain. The potential impacts of climate change on members' life expectancies under the Trustee's three chosen scenarios over the three timescales described in this report could result in either an increase or decrease in future life expectancies.

For example, in the Failed Transition scenario, the continued use of fossil fuels is expected to lead to higher temperatures, reducing cold-related deaths in winter and

thus increasing life expectancies. However, this effect could be offset by less prosperous economic conditions, which may limit the funding available for healthcare and therefore reduce life expectancies. The extent to which these factors outweigh each other will determine whether life expectancies increase or decrease. These factors are also expected to emerge over the future lifetime of the membership and their effects on Scheme funding will be further reduced to the extent that the Scheme completes any additional insurance transactions which hedge any remaining longevity risk in the future.

The Trustee did not explicitly allow for the possible effects of climate change when making assumptions about life expectancy for the Scheme's actuarial Valuation as at 31 March 2021. However, it did consider uncertainties associated with life expectancy and the sensitivity of the valuation results to the assumptions made. For example, due to the significant levels of longevity hedging in the Scheme, the funding position disclosed as at 31 March 2021 as part of the Scheme's actuarial valuation would have been only £3m worse if long-term rates of future improvement in mortality were to increase by 0.25% pa. The Trustee will keep this area under review and consider it further as part of its strategic planning, risk management frameworks and at the next actuarial valuation as at 31 March 2024.

*\* The liabilities modelled by BlackRock will differ slightly from those modelled by the Scheme Actuary due to differing model approaches and assumptions.*

# 6 Metrics

# Metrics: Introduction

This report presents data analysis for the Scheme’s assets as at 31 December 2022, where available. The metrics analysis for carbon footprint, carbon intensity and data quality allows for the Scheme’s insurance arrangements, whereas the portfolio alignment metric excludes the Scheme’s insurance arrangements due to data availability, and is based only on the assets under BlackRock’s management. Links to Legal and General and Rothesay Life’s TCFD reports are included in the “Additional Information” section and these reports include emissions data for these entities.

The Trustee has chosen to present four climate-related metrics in this report. These climate-related metrics help the Trustee to:

- Understand the climate-related risk exposures and opportunities within the Scheme’s investment strategy; and
- Identify areas for further risk management, which may include additional due diligence of the investment manager and its voting and engagement activity and priorities.

Following advice and training from Mercer on the range of metrics that are available, the Trustee chose the following metrics during the Scheme year:



Absolute Emission Metric: Total Greenhouse Gas (GHG) Emissions



Additional Metric: Data Quality



Emissions Intensity Metric: Carbon Footprint



Portfolio Alignment Metric: Binary Target

The Trustee recognises the challenges associated with the various metrics, tools and modelling techniques used to assess climate risk. The Trustee will work with BlackRock to continuously improve the approach to assessing and managing risks over time as more data becomes available. The Technical Section of this report sets out the data limitations and assumptions used in collating these metrics.

**Comment on data:** The Trustee is taking steps to address data gaps that are present, where possible. The Trustee seeks improvements from the industry, its investment manager and entities it has exposure to. The Scheme’s investment manager engages with companies and sovereigns to improve their data reporting in this area. The Trustee noted, on the back of discussions over the year, one of BlackRock’s engagement priorities is to encourage disclosures aligned with the TCFD reporting framework. The Trustee notes to readers that emissions figures shown may increase as more data becomes available.

# Metrics: Absolute Emissions Metric

## – Total GHG Emissions

“Total GHG Emissions” measures the total Green House Gas (GHG) emissions associated with a portfolio. It attempts to calculate the amount of carbon emissions the Scheme “owns” (or finances) as a consequence of its holdings. Total GHG Emissions are measured in tonnes of CO<sub>2</sub> equivalent (“tCO<sub>2</sub>e”) based on the Kyoto Protocol covering seven main GHGs<sup>1,2</sup>.

Scope 1 and 2 carbon emissions data has been calculated for all asset classes or insurance arrangements where data is available.

**Based on BlackRock managed assets only, data is reported for 79.9% of the portfolio, and allowing for estimated data the Trustee is reporting on 85.6% of the portfolio (Scope 1 and 2 only). Estimated Scope 3 data is available for 40.2% of the portfolio. Figures at 31 December 2022.**

Scope 3 emissions are included for the Scheme’s corporate bonds portfolio. Due to low availability of company reported Scope 3 data, this has been estimated across the 15 GHG Protocol stated categories based on MSCI’s internally vetted model.

The emissions data helps the Trustee to see the breakdown of where the emissions come from in order to understand the exposures to climate-related risk within the investment strategy. The largest allocation for the Scheme’s assets under management with BlackRock is to the Liability Matching Portfolio therefore this makes up the largest proportion of the Scheme’s total carbon emissions (based on Scope 1 and 2 available data) excluding the insurance arrangements. This portfolio provides good protection against changes in interest rates and inflation and therefore the Trustee expects the allocations to these assets to increase over time as the funding level improves and the liquidation portfolio runs off. The majority of this portfolio is invested in UK Government bonds and so will be aligned with the UK Government’s climate-related targets. Currently, the UK is targeting emissions reductions of 78% by 2035 relative to 1990 levels. The Trustee has very limited ability to influence these carbon reduction targets set by the UK Government. The methodology for the Liability Matching Portfolio (i.e. sovereign bonds) and the remainder of the portfolio is different. The Trustee also has very limited ability to influence the carbon reduction targets for the insurers behind its insurance arrangements.

### BlackRock managed assets as at 31 December 2022

31/12/2022	Allocation Excluding insurance contracts (%)	Scope 1 and 2 GHG Emissions (tCO <sub>2</sub> e) <sup>2</sup>	Scope 3 GHG Emissions (tCO <sub>2</sub> e) <sup>2</sup>	Comments
<b>Private Equity</b>	2.4	-	-	Data/proxies not available
<b>Alternatives</b>	2.5	-	-	Data/proxies not available
<b>Property</b>	0.1	-	-	Data/proxies not available
<b>Corporate Bonds</b>	40.2	75,725	348,848	
<b>Liability Matching Portfolio – Gilts, Repo, TRS</b>	53.9	139,212	-	Appendix has further details. Data/proxies not available for Scope 3 emissions
<b>Cash<sup>3</sup></b>	0.9	-	-	Data/proxies not available

1) Seven main GHGs: carbon dioxide, methane, nitrous oxide, nitrogen trifluoride, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.

2) Total GHG Emissions assumes securities for which there is no reported or estimated carbon emissions data have portfolio-average Carbon Footprint. Total GHG Emissions are higher (more conservative) than they would be if we assumed the contribution from these securities was zero.

3) All FX forwards are included in Cash

Source: BlackRock, MSCI, Bloomberg. All data is as at 31 December 2022 unless otherwise noted.

### The Scheme’s insurance arrangements as at 31 December 2022

31/12/2022	Scope 1 and 2 GHG Emissions (tCO <sub>2</sub> e) <sup>2</sup>	Scope 3 GHG Emissions (tCO <sub>2</sub> e) <sup>2</sup>	Comments
<b>Reference Gilts backing the synthetic buy-in/longevity swap held with Rothersey Life</b>	274,669	-	Appendix has further details
<b>Bulk Annuity held with Legal and General</b>	234,300	-	Appendix has further details

Source: WTW, Legal and General, State Street, BlackRock. All data is as at 31 December 2022 unless otherwise noted.

# Metrics: Emissions Intensity Metric – Carbon Footprint

“Carbon Footprint” calculates the carbon intensity of each asset class by dividing the total GHG emissions of each portfolio by the size of the portfolio in pounds sterling. Carbon Footprint is measured in tonnes of CO<sub>2</sub> equivalent per £ million invested.

Scope 1 and 2 carbon emissions data has been calculated for all asset classes or insurance arrangements where data is available.

Based on BlackRock managed assets only, data is reported for 79.9% of the portfolio, and allowing for estimated data the Trustee is reporting on 85.6% of the portfolio (Scope 1 and 2 only). Estimated scope 3 data is available for 40.2% of the portfolio. Figures at 31 December 2022.

Scope 3 emissions data are included for the Scheme’s corporate bond portfolio. Due to low availability of company reported Scope 3 data, this has been estimated across the 15 GHG Protocol stated categories based on MSCI’s internally vetted model.

The Gilts, index-linked Gilts and Gilts TRS within the Liability Matching Portfolio show the highest emissions intensity of the data available (based on scope 1 and 2 emissions data). However, these are included within the strategic asset allocation as they provide liability matching income streams and good protection against changes in interest rates and inflation. The Trustee expects the allocations to these assets to increase over time as the funding level improves and the liquidation portfolio runs off. There are limited levers available to influence the intensity figure for government bonds within the Liability Matching Portfolio.

The Trustee has very limited ability to influence the intensity figures for the insurers behind its insurance arrangements.

## BlackRock managed assets as at 31 December 2022

31/12/2022	Allocation Excluding insurance contracts (%)	Scope 1 and 2 Carbon Footprint (tCO <sub>2</sub> e/£m) <sup>1</sup>	Scope 3 Carbon Footprint (tCO <sub>2</sub> e/£m) <sup>1</sup>	Comments
Private Equity	2.4	-	-	Data/proxies not available
Alternatives	2.5	-	-	Data/proxies not available
Property	0.1	-	-	Data/proxies not available
Corporate Bonds <sup>2</sup>	40.2	119.1	548.5	
Liability Matching Portfolio – Gilts, Repo, TRS	53.9	182.2	-	Appendix has further details. Data/proxies not available for Scope 3 emissions intensity
Cash <sup>3</sup>	0.9	-	-	Data/proxies not available

1) Carbon Footprint is calculated only for securities where BlackRock has either reported or estimated carbon emissions data.

2) Enterprise value data is not available for c.22.5% of the corporate bond portfolio. Where that’s the case, securities are excluded from both Total GHG Emissions and Carbon Footprint.

3) All FX forwards are included in Cash

Source: BlackRock, MSCI, Bloomberg. All data is as at 31 December 2022 unless otherwise noted.

## The Scheme’s insurance arrangements as at 31 December 2022

31/12/2022	Scope 1 and 2 Carbon Footprint (tCO <sub>2</sub> e/£m) <sup>1</sup>	Scope 3 Carbon Footprint (tCO <sub>2</sub> e/£m) <sup>1</sup>	Comments
Reference Gilts backing the synthetic buy-in/longevity swap held with Rothesay Life	103.1	-	Appendix has further details
Bulk Annuity held with Legal and General	71.0	-	Appendix has further details

# Metrics: Additional Metric – Data Quality

“Data Quality” will – over time – help the Trustee evaluate the reliability of the information collected. The measure aims to represent the proportions of the portfolio for which the Trustee has high quality data. This is based on four factors which consider what proportion of the data is verified, reported, estimated or unavailable. Note that BlackRock have been unable to source a breakdown between reported data that is verified or unverified. Therefore, the carbon emissions data shown is classified as “reported”, “estimated” or “unavailable”.

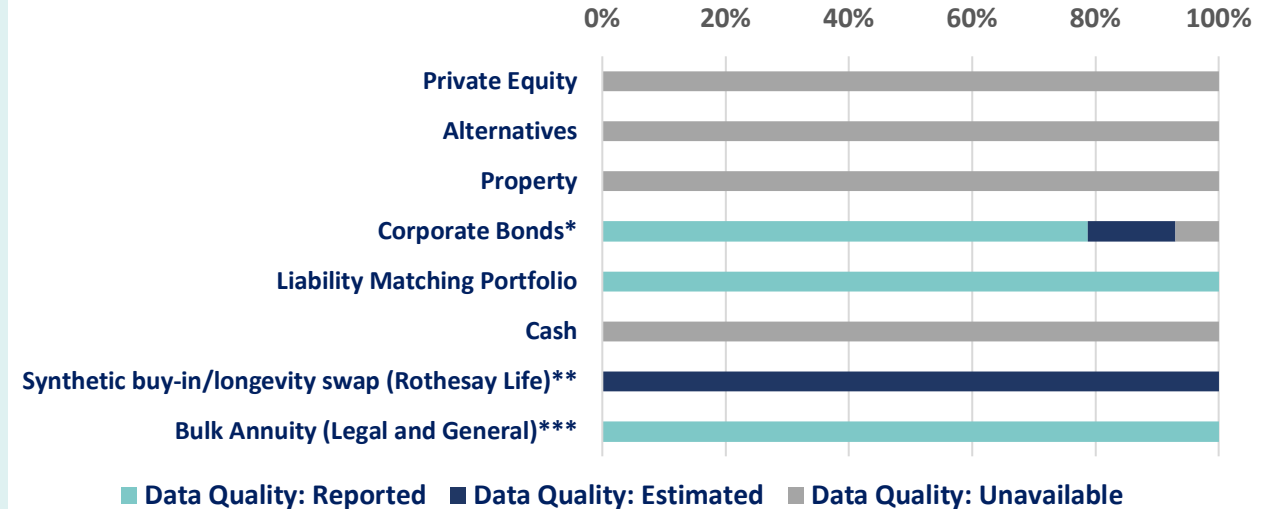
**Comment on Scope 1 and 2 data for BlackRock managed assets:** For the corporate bond mandate the level of reported data is reasonably high with only a small proportion unavailable or estimated. The largest mandate held with BlackRock, the liability matching portfolio, has 100% reported carbon emissions data.

Where reported, the data quality is generally high giving the Trustee comfort in the figures and the ability to use the data to assess climate-related risks and opportunities. However, there is still some way to go to improve overall data quality in remaining asset classes in the portfolio and across the industry particularly in unlisted assets.

**Scope 3 emissions data** are included for this year’s report for the Scheme’s corporate bond portfolio. Due to low availability of company reported Scope 3 data, this has been estimated across the 15 GHG Protocol stated categories based on MSCI’s internally vetted model. Scope 3 data is 100% estimated for corporate bonds. For other asset classes and insurance arrangements, this is unavailable.

Based on total Scheme assets, data is reported for 60.5% of the portfolio, and allowing for estimated data the Trustee is reporting on 97.0% of the portfolio (Scope 1 and 2 only). Estimated scope 3 data is available for 8.4% of the total assets including insurance arrangements. Figures at 31 December 2022.

Scope 1 and 2 data quality across assets and insurance arrangements as at 31 December 2022



Note that even where carbon emissions data may be available, other data points essential for certain calculations may not be available. The data quality figures shown reflect the availability of emissions data only.

\*Enterprise value data is not available for c.22.5% of the corporate bond portfolio. These securities are excluded from both Total GHG Emissions and Carbon Footprint

\*\* The data quality for the Synthetic Buy-in and longevity swap held with Rothsay Life has been classified as estimated. These are derivative contracts in nature but the calculations are based on the government bonds backing the arrangements, rather than the emissions being provided directly.

\*\*\*The data quality for the bulk annuity with Legal and General has been labelled as reported as this was calculated based on data reported by L&G on the emissions of its UK annuity book.

All FX forwards are included in Cash.

Source: BlackRock, MSCI, Bloomberg, State Street, Legal and General, WTW. All data is as at 31 December 2022 unless otherwise noted.



# Metrics: Portfolio Alignment – Binary Target

A "portfolio alignment" metric means a metric which gives the alignment of the Scheme's assets with the climate change goal of limiting the increase in the global average temperature to 1.5 degrees Celsius above pre-industrial levels (i.e. In line with the goals of the Paris agreement).

The "binary target" that has been chosen measures the alignment of the portfolio with a given climate outcome, based on the proportion of portfolio by market value that has verified Paris-aligned targets.

Science Based Targets initiative (SBTi)'s Portfolio Coverage Tool for Financial Institutions is an open source example of a tool that can be used to track the percentage of companies in a portfolio that have such a targets.

Just under 44% of the Scheme's corporate bond portfolio is invested in issuers who have verified science-based carbon reduction targets. Another c.15% are believed to be committed to working towards having verified targets.

The data is only available for corporate bonds. This was the preferred metric in terms of data coverage and reporting ability from the investment manager.

The positives of this metric are its simplicity, allowing a straightforward assessment of the extent to which a portfolio is committed to net zero. It is also the only forward-looking metric that could tie directly to real-world changes, whereas other metrics are more backwards looking. It is useful for challenging the investment manager if investing in new companies with no net zero target. However, it does not tell you where in the journey a company (or the portfolio) is in achieving the net zero target. Note, SBTi validation is not currently available for companies in certain sectors and different sectors can have different SBTi alignment targets.

This metric excludes analysis on the Scheme's insurance arrangements due to lack of data availability.

		31/12/2021 Comparator	31/12/2022
	Allocation 31/12/2022 Excluding insurance contracts (%)	Verified Target % of market value invested in issuers with verified SBTi targets	Verified Target % of market value invested in issuers with verified SBTi targets
<b>Private Equity</b>	2.4	-	-
<b>Alternatives</b>	2.5	-	-
<b>Property</b>	0.1	-	-
<b>Corporate Bonds</b>	40.2	31.7%	43.9%
<b>Liability Matching Portfolio – Gilts, Repo, TRS</b>	53.9	-	-
<b>Cash<sup>1</sup></b>	0.9	-	-

*1) All FX forwards are included in Cash*

*Source: BlackRock, MSCI. All data is as at 31 December 2022 unless otherwise noted.*

*The calculation "looks up" to issuers' parent entities where appropriate*

# 7 Targets

# Targets: Trustee’s Climate-Related Target

The Trustee has decided to set a climate-related target for the corporate bond mandate only relating to the Portfolio Alignment, Binary Target metric. The corporate bond mandate consists of one segregated Buy and Maintain high-quality credit mandate.

The Trustee’s target is:

**To increase the percentage of the issuers in the Buy & Maintain Credit portfolio (weighted by market value) that have an SBTi-approved target to 70% by 2027**

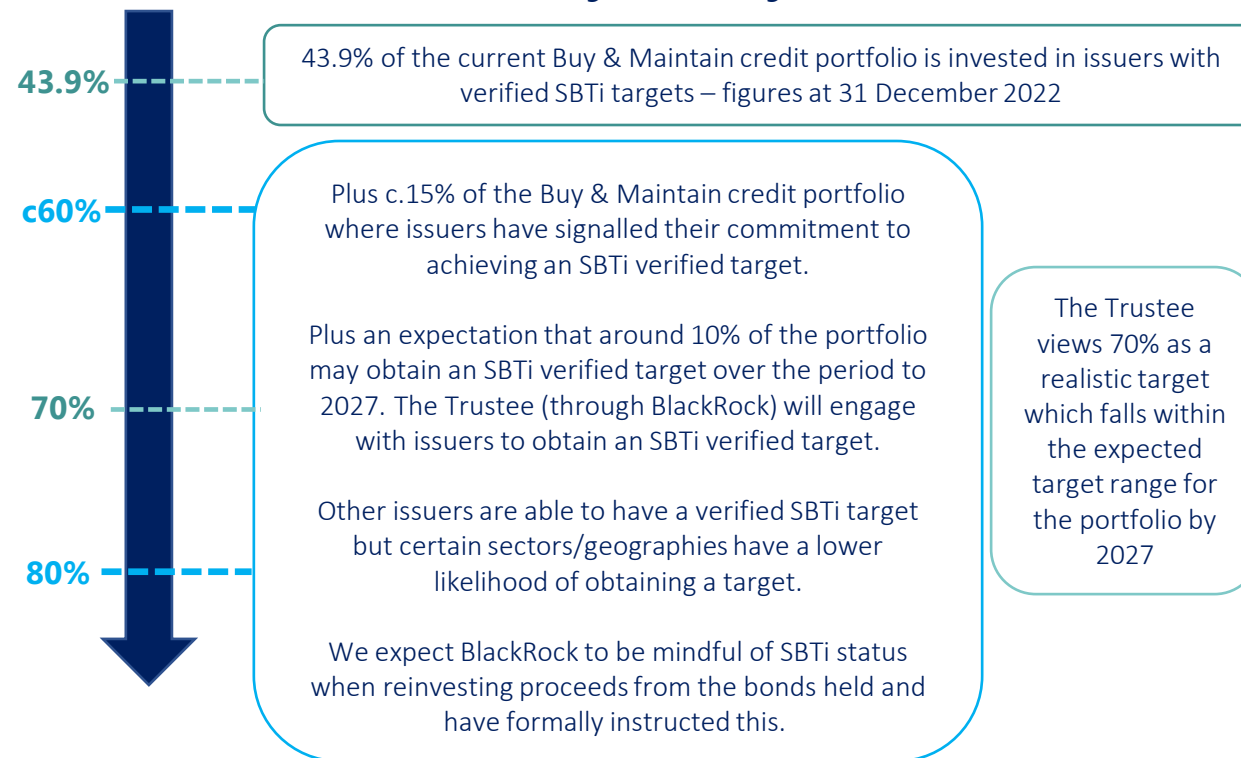
The chart on the right explains why the Trustee chose this particular level for the target. Corporate bonds were chosen as the target portfolio given their expected future prominence in the Scheme’s long-term investment strategy within a low-risk investment portfolio.

A summary of the progress to date against this target is shown opposite. It can be seen that 43.9% of the corporate bond portfolio has a SBTi-verified target as at 31 December 2022. A further c.15% of the portfolio holdings have committed to adopting SBTi in future. The remainder of the target will need to come from the proportion of the portfolio that is neither committed nor verified but which may commit in the future.

The Trustee considered the challenges around how to implement a climate-related target without requiring portfolio turnover. Use of engagement and stewardship are key to driving climate-positive outcomes. The target has the opportunity for real world impact through active engagement. Active stewardship should play a vital role over simply divesting in moving to a low carbon economy. We expect BlackRock to be mindful of SBTi status when reinvesting proceeds from the bonds held and have formally instructed this.

This target was adopted from 31 December 2022 and this is the base date of the calculation. Year on year progress included in this year’s report is for information only.

## Why 70% by 2027?



	Corporate Bond Portfolio	
	31 December 2021 (historical comparator)	31 December 2022 (target adoption date)
<b>Verified Target: % of market value invested in issuers with verified SBTi targets</b>	31.7%	43.9%

# Targets: Rationale for Setting the Target

## 1) *To increase the percentage of the issuers in the Buy & Maintain Credit portfolio (weighted by market value) that have an SBTi-approved target to 70% by 2027*

In setting its target, the Trustee worked closely with its investment manager and investment advisor to establish what data was available for each of its asset classes, what the quality of that data was, and how practical it would be to set a target around that data. Highlights of the various asset-level considerations are shown opposite. Overall, given the Trustee has no discretion over the decarbonisation pathway for UK Gilts and will therefore need to set its target against corporate bonds.

The 2027 date meets the TCFD requirement to set a target within the next 10 years and is aligned with the Scheme's short-term time horizon, which aligns with the Contingent Payment\* assessment date.

The Trustee has decided to use 31 December 2022 as a baseline. This is consistent with the requirement to calculate metric data within the Scheme year.



**Property, Alternatives and Private Equity:** The data availability is currently poor. It is challenging to drive climate-related targets for legacy investments in run-off or reaching maturity. The small size of the run-off allocations to these assets mean they are less suitable for basing a target on



**Liability Driven Investments:** Metric data coverage is excellent however, any targets set against this portfolio will be aligned predominantly with the UK Government's climate-related targets. Currently, the UK is targeting emissions reductions of 78% by 2035 relative to 1990 levels. In addition, levers to control progress against target are very limited.



**Corporate Bonds:** Metric data coverage is good. Challenges centre around how to implement a climate-related target without requiring unnecessary portfolio turnover. Use of engagement and stewardship are key to driving climate-positive outcomes.

Credit will remain a substantial proportion of the investment strategy.

# 8 Technical Section

# Technical Section – Supporting Information for Scenario Analysis

Scenario	Rationale	Catalysts	Calibration	Scenario Source
<b>Orderly Transition – transition risk</b>	<ul style="list-style-type: none"> <li>A transition to Global Net Zero by 2050 is achieved via immediate and smooth policy responses</li> <li>Carbon taxes are channelled back to the economy via government investment</li> </ul>	<ul style="list-style-type: none"> <li>UK sees up to 2% p.a. GDP gains peaking in 2027 (50% of carbon tax assumed to be reinvested into the economy)</li> <li>UK inflation around 1.9% higher peaking in 2026, largely driven by repricing of carbon prices</li> <li>Price of carbon rises to over 800 \$/ton by 2050.</li> </ul>	<ul style="list-style-type: none"> <li>The UK yield curve rises modestly as growth accelerates</li> <li>Higher inflation drives most of the impact on UK LDI assets and pension liabilities</li> <li>Assumed no significant central bank response to higher inflation.</li> </ul>	NGFS Net Zero 2050*
<b>Orderly Transition – physical risk</b>	<ul style="list-style-type: none"> <li>Robust corrective action is taken to reduce emissions but temperatures still rise by 1.5°C by c 2100 relative to pre-industrial levels</li> </ul>	<ul style="list-style-type: none"> <li>Physical changes such as higher temperatures, sea-level rises and hurricanes impact GDP.</li> <li>The impacts are largely felt from 2050 onwards</li> </ul>	<ul style="list-style-type: none"> <li>The UK yield curve increases modestly in the near term, but more for longer tenors as physical risks become more evident.</li> </ul>	NGFS Net Zero 2050*
<b>Disorderly transition – transition risk</b>	<ul style="list-style-type: none"> <li>A delayed transition starts in 2030</li> <li>Carbon taxes are used to cut income tax, thus boosting private consumption</li> <li>There is a negative shock to business confidence as stringent policies are introduced</li> </ul>	<ul style="list-style-type: none"> <li>There is a negative impact on UK GDP particularly in the early to mid 2030s</li> <li>UK inflation around 1% higher than in a base case peaking in 2032 largely driven by repricing of carbon prices</li> <li>Price of carbon rises from 0 in 2030 to over 1000 \$/ton by 2050</li> </ul>	<ul style="list-style-type: none"> <li>The middle of the UK yield curve rises modestly as the risk premia (probability of default) applied to the UK increases.</li> <li>Higher inflation is priced in from 2030 onwards</li> <li>There is assumed to be no significant central bank response to higher inflation.</li> </ul>	NGFS Delayed Transition*
<b>Disorderly transition – physical risk</b>	<ul style="list-style-type: none"> <li>Some corrective action to reduce emissions is taken but temperatures rise by 1.8°C in 2100 relative to pre-industrial levels</li> </ul>	<ul style="list-style-type: none"> <li>Physical changes such as higher temperatures, sea-level rises and hurricanes impact GDP.</li> <li>The impacts are largely felt from 2050 onwards</li> </ul>	<ul style="list-style-type: none"> <li>The UK yield curve increases modestly in the near term, but more for longer tenors as physical risks become more evident.</li> </ul>	NGFS Delayed Transition*
<b>Failed transition – physical risk</b>	<ul style="list-style-type: none"> <li>No corrective action to reduce emissions is taken meaning that temperatures rise by 3.3°C by c 2100 relative to pre-industrial levels</li> </ul>	<ul style="list-style-type: none"> <li>Physical changes such as higher temperatures, sea-level rises and hurricanes impact GDP. The impacts are largely felt from 2050 onwards</li> </ul>	<ul style="list-style-type: none"> <li>The UK yield curve increases modestly in the near term, but more for longer tenors as physical risks become more evident.</li> </ul>	NGFS Current Policies*

Note: the impact of transition and physical risk on sovereign bond portfolios and Scheme liabilities has been modelled separately by BlackRock through calibration of user specified stress tests intended to be consistent with the climate scenarios shown.

\*NGFS (Network for Greening the Financial System) published scenarios can be found here: [https://www.ngfs.net/sites/default/files/ngfs\\_climate\\_scenarios\\_technical\\_documentation\\_phase2\\_june2021.pdf](https://www.ngfs.net/sites/default/files/ngfs_climate_scenarios_technical_documentation_phase2_june2021.pdf)

# Technical Section – Supporting Information for Scenario Analysis

## Context

- Results are expressed as “climate-adjusted valuations” for Transition and Physical Risks. These are based on discounted cash flow analysis in each scenario relative to a “counterfactual” scenario that is assumed to be priced into current valuations. BlackRock’s analysis considers a single timespan over the lifetime of the scenario modelled.
- The “counterfactual” assumes no additional warming for Physical Risk scenarios, and no additional policies enacted for Transition Risk scenarios. The outputs are therefore conservative by design (i.e. they produce more severe outcomes) which is consistent with stress testing market practice. Essentially “de minimis” pricing of climate change is assumed in current valuations.
- Due to different methods the **Physical and Transition Risk adjusted values cannot be added** to provide a total climate risk adjusted value.
- Given evolving nature of climate analytics, **we expect input data and models to change over time**, with potentially significant impacts on results.

## BlackRock: Scenario Analysis Limitations

### Modelling

- The climate models used focus separately on transition risk or physical risk. A holistic view of climate-related financial risks should take both into account
- The climate models used do not predict the abrupt or irreversible changes that may result from reaching critical climate thresholds or “tipping points”
- The economic models used may not adequately predict feedback loops and will therefore underestimate the chance of systemic failure in parts of the global economy
- Models also do not include the social or political impact of mass migration
- The current framework incorporates first order impacts on companies’ revenues and costs. It does not capture second order effects such as supply chain disruption
- Based on prior economic and financial crises, it can be hard to predict the scale of monetary and fiscal policy responses. The models’ assumptions about changes in financial valuations may therefore be incorrect.
- They also do not include the impact of other shocks that might occur such as recessions, conflicts or pandemics.

### Data

- BlackRock have been able to provide transition risk scenario analysis for assets equalling c84% of the total, and have been able to provide physical risk scenario analysis for assets equalling c93% of the total
- There are a number of portfolios for which there is not adequate information on the underlying holdings to provide quantitative scenario analysis. These are: Private Equity, Property and Alternatives.
- Where BlackRock believe this could be misleading they have marked the estimated impact as N/A
- Cash is not included in this analysis

## Note on Liabilities

- The Liabilities shown are based on the Trustee’s Agreed Valuation Basis (AVB) plus proposed pattern of discretionary pension increases: the AVB + PP basis. However, the liability figures are produced from the liability proxy provided to BlackRock and are an output from BlackRock’s Aladdin system and the figures will not necessarily match the liability value produced by the Scheme Actuary.
- The liabilities modelled by BlackRock will also differ slightly from those modelled by the Scheme Actuary due to differing model approaches, assumptions, and due to the cashflows provided to BlackRock being primarily for the purpose of maintaining the liability hedging portfolio.

## Note on Insurance contracts

The scenario analysis has been calculated excluding the Scheme’s assets and liabilities in respect of the buy-in with Legal & General and synthetic buy-in with Rothesay Life (described in this report as “excluding insurance transactions”). It also makes no allowance for the potential impact of climate change on demographic factors, in particular life expectancy as the Scheme has extensive hedging of longevity risk in place.

# Technical Section – Supporting Information for Scenario Analysis

Description	Type	Climate Scenario <sup>1</sup>	Financial Model <sup>1</sup>	Temperature Rise	Climate Policy Assumptions
Orderly Transition	Transition and physical risk	NGFS Net Zero by 2050	Aladdin Climate	~1.5°C	Immediate and co-ordinated
Disorderly Transition	Transition and physical risk	NGFS Delayed Transition		~1.8°C	Delayed action
Failed Transition	Physical risk only	NGFS Current Policies		~3.3°C	Current policies only

Data Coverage	Corporate Bonds <sup>2</sup>	Liability Hedging Assets	Total
All transition risk scenarios	74.0%	100%	83.6%
All physical risk scenarios	97.6%	100%	93.1%

BlackRock’s climate models are intended to highlight the potential impact of climate policies and outcomes on the economy and on financial markets. Although they provide some insight into where the Scheme may face risks or have opportunities, modelling financial risks requires making a number of assumptions which may not be correct.

The scenario assessments BlackRock has considered should be taken independently. Physical risks and transition risks are however linked. Scenarios with increased transition risk in the short to medium term are likely to have lower physical risks in the long term (and vice versa). The DWP’s guidance for Occupational Pension Schemes does however note that considering transition and physical risk separately may be helpful.

The BlackRock analysis presented here uses the Network for Greening the Financial System’s scenarios as a starting point. The implications of each scenario are modelled at an economy-wide, sector, issuer and asset level by BlackRock. The models focus on the most likely direct impact of climate policy measures, evolving consumer trends, and technological innovation on corporate prospects.

Aladdin Climate has been used to calculate the impact on the Scheme’s corporate equity and corporate credit portfolios. The impact of both physical and transition risk on the Scheme’s liability matching assets and liabilities has been modelled separately in Aladdin through calibration of user specified stress tests intended to be consistent with the climate scenarios shown.

**Note on modelling:** The intricacies of climate systems present considerable difficulties in modelling the impacts on the Scheme’s assets and liabilities. This is particularly true in the Failed Transition scenario. Due to the unprecedented nature of such warming, it is challenging to encompass all potential consequences within the modelling process. Simplifications in the modelling, such as not allowing for tipping points, mean the actual impact on the Scheme is likely to be more significant than is currently being modelled. As long as these limitations are understood, the scenarios still provide valuable insights to inform climate risk assessment and management.

- 1) BlackRock’s equity and corporate bond models forecast the impact of the various scenarios and look forward 30 years, or for corporate bonds a shorter time period relevant to their individual maturities. The climate and economics models look further out, for example the physical models currently run to 2090, but there is a limit of what is relevant to the current valuation of financial securities.
- 2) Data coverage for bottom-up modelling of corporate bonds spreads. Coverage is as per LDI for modelling interest rate and inflation shocks



# Technical Section – Supporting Information for Scenario Analysis

## Estimated impact on Assets

94% of assets are within the Liability Matching Assets, as shown below. The remainder of the assets are not covered by the analysis.

Estimated Impact on Assets	Private Equity	Alternatives	Property	Liability Matching Assets	TOTAL <sup>1</sup>
AUM at 31/12/2022	£38m	£40m	£2m	£1,489m	£1,583m
Orderly Transition -Transition Risk -Physical Risk	Not covered	Not covered	Not covered	3.8% -0.4%	3.6% -0.4%
Disorderly Transition -Transition Risk -Physical Risk	Not covered	Not covered	Not covered	1.8% -0.4%	1.7% -0.4%
Failed Transition -Transition Risk -Physical Risk	Not covered	Not covered	Not covered	n/a -0.4%	n/a -0.4%

## Climate Related Risks: Liability hedging portfolio as at 31 December 2022

The largest estimated change in the Scheme's liabilities occurs under the orderly transition scenario, where higher carbon prices and an increase in government investment drives higher inflation. In the disorderly scenario, transition-related activities are delayed, reducing the near-term impact.

1) Includes £14m of cash and other (which includes the mark to market currency hedging)

Source: BlackRock, December 2022

# Technical Section – Supporting Information for Metrics

## Gilts and Index-Linked Gilts approach (BlackRock managed assets)

Physical gilts, gilt repo and gilt Total Return Swaps (TRS) have been included. Interest rate and inflation swaps have been excluded from the calculation.

Total emissions is calculated as follows:

- Metrics tonnes of CO<sub>2</sub> and equivalents per country multiplied by (face value of gilts in the portfolio / public debt). This is based on MSCI data, Bloomberg data and the value of the gilts held. The Emissions footprint figure is arrived at by dividing the below figure through by the portfolio NAV.

<b>Total emissions tCO<sub>2</sub>e</b>	For physical gilts: 139,212 tons CO <sub>2</sub> and equivalents
	For green gilts: 0 tons CO <sub>2</sub> and equivalents
	For gilts TRS: 0 tons CO <sub>2</sub> and equivalents

	Total in Liability Matching Portfolio
<b>Physical gilts excluding green gilts</b>	£764m
<b>Green Gilts</b>	£0m
<b>Gilt TRS</b>	£0m
<b>Portfolio NAV</b>	£764m

*Note: the avoided, or removed, emissions resulting from investing in green gilts will be included in next year's report.*

## Insurance arrangements approach

For the Rothesay Life synthetic buy-in the total emissions is calculated as follows:

- Based on the UK Gilts held as collateral backing the arrangement. Metrics tonnes of CO<sub>2</sub> and equivalents per country multiplied by (face value of gilts in the portfolio / public debt). This is based on MSCI data, Bloomberg data, State Street data and the value of the gilts held. The Emissions footprint figure is arrived at by dividing the below figure through by the Market value of the UK gilts held as collateral.

For the Legal and General bulk annuity the total emissions is calculated as follows:

- Total emissions have been calculated based on emissions footprint data reported by Legal and General, for the emissions of its UK annuity book multiplied by an approximate market value of the contract. Figures are based on Legal and General and WTW data.

Insurer	Arrangement	Market Value (31/12/2022)	Total emissions tCO <sub>2</sub> e
Rothesay Life	Synthetic Buy-in and longevity swap (derivative in nature)	£2,664m Based on the value of the Reference Gilts backing the contracts	274,669 tons CO <sub>2</sub> and equivalents
Legal and General	Bulk Annuity	£3,300m Estimated	234,300 tons CO <sub>2</sub> and equivalents

# Technical Section – Supporting Information for Metrics

## Definition of Scope 1, 2 and 3 emissions

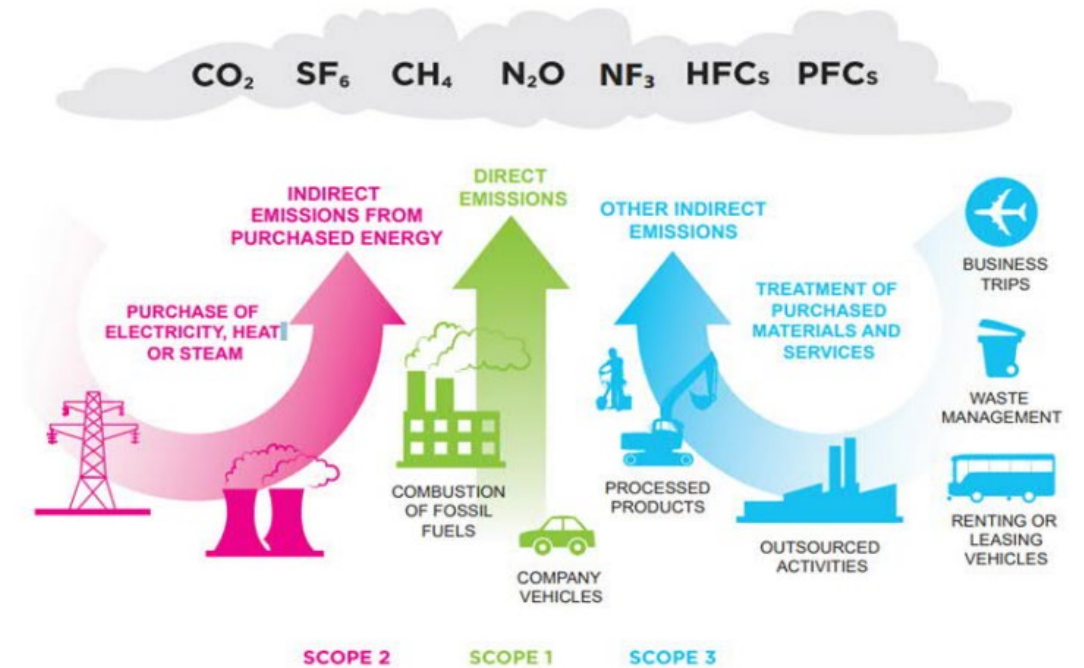
Scope 1,2 and 3 emissions are as defined by the GHG protocol. The GHG Protocol Corporate Standard classifies a company's GHG emissions into three 'scopes'.

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

## Definition of Greenhouse Gases (GHGs)

The Kyoto Protocol sets out the seven main GHGs as follows:

- Carbon dioxide, CO<sub>2</sub>
- Sulphur hexafluoride, SF<sub>6</sub>
- Methane, CH<sub>4</sub>
- Nitrous oxide, N<sub>2</sub>O
- Nitrogen trifluoride, NF<sub>3</sub>
- Hydrofluorocarbons, HFCs
- Perfluorocarbons, PFCs



# **9 Additional information**

# Scheme Information

## Scheme overview

APS is a predominantly Defined Benefit (DB) arrangement which has been closed to new entrants since 1984 but is open to future accrual for the remaining active members. APS was introduced to new entrants in 1948. Some of the Scheme's AVC arrangements are classified as part-DB due to guarantees.

Access to key documents for the Scheme is available using the following website: [www.mybapension.com](http://www.mybapension.com) including a copy of the Member's Handbook which succinctly explains the key features of the Scheme rules and options available to members. The full details can be found in the Trust Deed and Rules also available via the website.

All analysis has been carried out at Scheme-level. The analysis has not considered the AVC/Cash Balance holdings for proportionate reasons.

## Insurance Arrangements

In addition to the assets managed by BlackRock, APS has conducted the following transactions:

- A bulk annuity held with Legal and General, transacted in 2018 for £4.4bn;
- A synthetic buy-in held with Rothesay Life consisting of an asset swap and a longevity swap covering c. 24% of the pensions already in payment in June 2010; and
- A further longevity swap held with Rothesay Life covering 20% of the Scheme's longevity risk for pensions already in payment in June 2010.

## Insurer's TCFD Reports

Rothesay Life:

<https://www.rothesay.com/media/lp0n5guy/rothesay-esg-report-2021-pdf.pdf>

Legal and General:

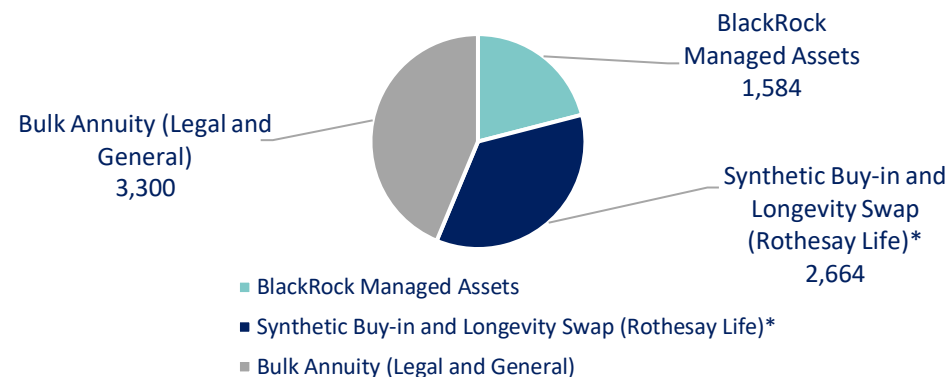
<https://group.legalandgeneral.com/media/hf0ppmpl/climate-report-final-high-res.pdf>

## Asset Allocation - assets under BlackRock management

Assets as at 31 December 2022	Value (£m)	Allocation (%)
<b>Liability Matching Portfolio</b>	<b>1,489.5</b>	<b>94.0%</b>
Corporate Bonds	636.2	40.2%
Liability Matching Portfolio	853.3	53.9%
<b>Liquidation Portfolio</b>	<b>80.5</b>	<b>5.1%</b>
Property	2.2	0.1%
Private Equity	38.4	2.4%
Alternatives	39.8	2.5%
Cash & FX	13.8	0.9%
<b>Total Assets</b>	<b>1,583.8</b>	<b>100.0%</b>

*Note: values shown above sourced from BlackRock as at 31 December 2022, taken from the 31 December 2022 Quarterly Investment Report. Figures slightly differ to elsewhere in this report as the above table captures post month end adjustments whereas those used in the report used a static Net Asset Value. Values above are net of insurance transactions.*

## Total Scheme Asset holdings 31/12/2022 (£m)



*\*Note: the value of the Rothesay Life transactions shown is that of the Reference Gilts backing the contracts for collateral purposes – as used in this report to calculate certain metrics. Alternatively the mark to market of the asset swap and longevity swaps added to the market value of these Reference Gilts could be used resulting in a value of £893m.*

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British Airways Pension Services Ltd registered address:

Waterside  
HAA1  
Harmondsworth  
UB7 0GB

Address for communications:

PO Box 2074  
Liverpool  
L69 2YL

Website:

[www.mybapension.com](http://www.mybapension.com)