

## BAE Systems Pension Scheme Climate Disclosure Report – Executive Summary

This is the Trustee’s fourth annual climate disclosure report for the BAE Systems Pension Scheme (‘the Scheme’), covering the Scheme’s financial year ending 31 March 2025. The report covers how all four elements of the Task Force on Climate-related Financial Disclosures (‘TCFD’) framework – Governance, Strategy, Risk Management and Metrics & Targets – have been applied to the Scheme. This Executive Summary outlines the key points for each element.

### Governance

The report focuses on the two defined benefit (‘DB’) Sections of the Scheme – the BAE Systems DB Section and the Airbus DB Section. The Defined Contribution (‘DC’) Section is no longer included in the report following its transfer to a master trust arrangement in 2023/24. The DC Section now consists solely of a facility for members to pay Additional Voluntary Contributions (‘AVCs’) to enhance their pensions at retirement. Most members’ AVCs are invested through the Mercer Master Trust (‘MMT’), which is a DC Master Trust established by the Company. No new investments are available, but members can pay into their existing arrangements. Due to the small size of the AVCs that remain outside of the MMT relative to the wider Scheme and the limited scope for changing how they are invested, AVCs are excluded from this report.

The Trustee has overall responsibility for all investment matters, including responsible investment and managing the Scheme’s climate-related risks and opportunities. The Scheme’s Funding & Investment Committee (‘FIC’) oversees Scheme funding, investment and covenant matters and makes appropriate recommendations to the Trustee, who considers these and uses them to inform its decisions. The FIC’s responsibilities include considering climate-related risks and opportunities, as well as wider ESG considerations.

The Trustee and the FIC receive ongoing training to keep abreast of regulatory requirements and guidance on appropriate integration of climate-related considerations. Training received over the scheme year included:

- **Responsible Investment Update (May 2024):** This covered climate change, the transition to a low-carbon economy, integrating nature within net-zero strategies, social issues and stewardship.
- **Decarbonisation Plan for Public Corporate Credit (November 2024):** This provided an overview of proposals made by the Scheme’s investment manager – Goldman Sachs Asset Management (‘GSAM’) – for better incorporating net-zero alignment into the ongoing management and monitoring of the DB Sections’ public corporate credit portfolios. This was done after the Trustee asked for more information on their plan for making progress versus the Scheme’s target.
- **Decarbonisation Plan for Public Corporate Credit and Climate Targets (March 2025):** The transition to a low-carbon economy was discussed, noting the decreasing likelihood of limiting temperature increases to 1.5°C as per the most ambitious goals of the Paris Agreement. The Trustee decided to retain existing climate-related targets but acknowledges that it may need to adjust them in the future. The Trustee also agreed to incorporate GSAM’s proposed key performance indicators (‘KPIs’) to support monitoring of the Scheme’s climate target.

## Strategy

The Trustee integrates climate-related factors into the Scheme’s funding and risk management processes for assets, liabilities, and employer covenants. The Trustee evaluates climate risks and opportunities over the short, medium and long term, to ascertain whether the Scheme’s investment and funding strategy may need to be adapted over time.

### The time horizons monitored by the Trustee for the BAE Systems Pension Scheme:

<b>Short term</b>	<p>Three years from now, given this is an appropriate time horizon for capturing the more immediate risks and opportunities to the Scheme posed by climate change. This also aligns with the three-year actuarial valuation cycle.</p> <p>Although the short term is defined as three years, the Trustee monitors and considers climate risks and opportunities on an ongoing basis as part of FIC and Trustee meetings.</p>
<b>Medium term</b>	<p>The next decade, given the potential changes in climate risk data quality and the importance of significant changes being made this decade to limit global warming.</p>
<b>Long term</b>	<p>2050, as this aligns with the Trustee’s net-zero target and is helpful given the long-term nature of the Scheme’s liabilities and investments.</p>

The Trustee commissioned climate scenario analysis reports to assess the potential impact of climate risks and opportunities on the Scheme's ability to pay member benefits. Three climate scenarios have been assessed:

#### Reference scenarios used for the Trustee's climate scenario analysis

Scenario	Description
<b>Hot House World</b>	Global emissions rise until 2080, leading to over 3°C global warming and severe physical risks, especially in equatorial and developing regions. While long-term impacts are significant, near-term financial losses appear limited due to discounting and slower life expectancy improvements than in the baseline scenario. <sup>1</sup> However, as current global trajectories are closest to this scenario, suggesting risks may materialise sooner than models predict, the Trustee plans to consider this in more detail.
<b>Orderly transition</b>	Climate policies are introduced early and gradually become more stringent, limiting warming to well below 2°C. Physical risks are smaller than in the 'hot house world' scenario. In contrast, transition risks are more significant: carbon-intensive sectors experience increasing costs due to rising carbon prices and reduced revenue from falling demand, while low-carbon sectors benefit. This has significant impacts on sectors like energy and transport from the present onwards.
<b>Disorderly transition</b>	Transition policies kick in ten years later than under the 'orderly' scenario, but warming is still limited to well below 2°C. This requires carbon prices to increase more rapidly, reaching higher levels than in the 'orderly' scenario. Fossil fuel volumes are reduced more drastically to enable decarbonisation over a shorter period, resulting in higher levels of transition risk, particularly for more carbon-intensive sectors.

In 2023, the Trustee carried out scenario analysis to help assess the short-, medium-, and long-term impacts of climate-related risks and opportunities on the Scheme's investment and funding strategy. The scenario analysis for the assets and liabilities of the Scheme has not been refreshed this year given there were no significant changes to the portfolio or major advances in scenario analysis methodologies that would affect the analysis results. However, the covenant analysis has been refreshed utilising new climate disclosures from the sponsoring employers.

The Trustee recognises the limitations of current climate scenario models, including underestimating short and medium-term risks and overlooking potential tipping points. Nevertheless, scenario analysis is a valuable tool for highlighting climate risks and the need for appropriate risk management, and is a useful input for informing the Scheme's approach. The Trustee stays informed on industry-wide

<sup>1</sup> Climate risks in each scenario are quantified relative to a 'baseline' pathway. In this baseline, no additional climate policies are introduced beyond those that are currently in place, and there is no further change in climate beyond the level of warming that has already occurred. This effectively assumes that markets today have not priced in transition or physical risks from climate change.

developments, based on advice from the Scheme's investment adviser, and looks to improve scenario analysis as methodologies evolve.

Based on the analysis performed, the Scheme's investment and funding strategy appears relatively resilient across the assessed climate scenarios, acknowledging the aforementioned limitations of such analysis. Scenario analysis highlights the significance of both physical and transition risks<sup>2</sup>. While transition risks are currently more significant in the analysis, physical risks are expected to increase as temperatures continue to rise. This will be an area of focus for the Trustee in the near future.

## Risk Management

The Trustee considers climate change a major systemic investment risk that must be addressed, while also recognising that solutions to mitigate the climate crisis may present investment opportunities. Climate change is, therefore, a key consideration within the Trustee's strategy for delivering appropriate long-term risk-adjusted returns for the Scheme. The assessment of climate-related factors in broader scheme risk management practices continued to be on the agenda in 2024 and 2025.

The Trustee's two key beliefs on climate change and influencing positive change are as follows:

1. **Climate risks and long-term returns are interlinked** – i.e. the physical and economic impacts of climate change will affect the Scheme's investment outcomes.
2. **Stewardship – including engagement – is an effective way to influence positive change to manage climate risk.**

The Trustee maintains a quarterly-reviewed risk register, with specific controls for each risk. The FIC, reporting to the Trustee Board, regularly considers climate-related risks and opportunities. The Scheme's risk register was updated during the scheme year to ensure climate risks remain a priority for the Trustee. New climate risks are identified by the Scheme's investment adviser and investment manager and are brought to the FIC, which advises the Trustee if action is needed.

In Q1 2025, the Trustee adopted KPIs to support the Scheme's decarbonisation target and climate ambitions. Proposed by the Scheme's investment manager (and stewardship service provider), GSAM, these KPIs were incorporated into existing reports and will be monitored annually:

- **Emissions:** percentage reduction in scope 1 & 2 carbon footprint of the public corporate credit portfolio against the 2021 baseline, incorporating the Trustee's decarbonisation target.
- **Alignment:** increasing the proportion of assets aligned with the Paris Agreement relative to a reference index over time.
- **Engagement:** engaging with companies responsible for 90% of portfolio financed emissions by 2030.
- **Exclusions:** prohibiting additional exposure to companies with revenue from oil sands and thermal coal.

These KPIs are used for monitoring and are considered within the wider context of the Trustee's fiduciary duty.

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<sup>2</sup> Transition risk stems from policy actions for decarbonisation, which can alter asset values through the impact of carbon pricing or the pace of renewable energy adoption (as examples). Physical risk arises from weather changes and extremes, such as floods, hurricanes, droughts, or chronic effects like higher temperatures, humidity and ocean acidity.

GSAM engages with companies on the Scheme’s behalf across a variety of investment topics – including climate change – with the aim of improving the risk profile of the Scheme’s investments. This supports progress towards the Scheme’s decarbonisation target (covered later in this summary).

## Metrics

### Metrics selected by the Trustee

Department for Work and Pensions ('DWP') suggested metric	Metric selected by BAESPS Trustee	Rationale for selected metric
Total financed emissions	Total financed emissions	Recommended by the DWP.
Emissions intensity	<ol style="list-style-type: none"> <li>1. Carbon footprint</li> <li>2. Weighted average carbon intensity ('WACI')</li> </ol>	<p>Carbon footprint is recommended by the DWP, and WACI is optional.</p> <p>Both metrics provide useful information – carbon footprint assesses how carbon efficient the portfolio is in terms of emissions per million pounds invested and WACI assesses exposure to carbon-intensive companies.</p>
Additional metric	PCAF Data Quality Score	Measures the quality of disclosed financed emissions data. The Trustee has selected this new metric to gauge the accuracy of underlying emissions data.
Portfolio-alignment metric	Science-based target initiative ('SBTi')	<p>This forward-looking metric examines whether a voluntarily disclosed company decarbonisation target is aligned with a relevant science-based pathway, in line with the with the goals of the Paris Agreement.</p> <p>The Trustee uses a framework to track the SBTi alignment of investee companies along with engagement progress to help influence net-zero progress.</p> <p>The Trustee notes that this metric relies on voluntary targets set by corporations and, as such, is partly dependent on the policy environment evolving to better support the net-zero transition. As a result, whilst the Trustee views the SBTi metric as the most appropriate alignment metric at this time, there is unavoidable uncertainty that could cause a review of this in the future.</p>

GSAM provides the Scheme's climate data. The scenario analysis included in the report for the defined benefit Sections uses data previously supplied by BAE Systems Pension Funds Investment Management ('BAPFIM' – the Scheme's investment manager prior to the transfer to GSAM in 2023), and Planetrics as at 31 March 2023.

## Targets

The Trustee has set a target for the Scheme's DB Sections, using advice from its consultants, which acts as a stepping-stone for the Scheme's 2050 net-zero objective. The target is outlined below:

### **BAESPS 2030 Target**

Aim to reduce the scope 1 & 2 carbon footprint of public corporate credit by 50% by 2030, compared to the Scheme's 2021 baseline.

Note that this target applies to the DB Sections (covering all final-salary benefits) and excludes the Scheme's AVC holdings. The target does not currently cover scope 3 emissions due to the limitations associated with scope 3 emissions data.

The Trustee believes in the importance of the global transition to a low-carbon economy, but it also recognises that this could present risks to its investments. This is reflected in the Trustee's aim to achieve net-zero portfolio emissions by 2050, which is aligned with the most ambitious goals of the Paris Agreement, to limit average global temperature increases to 1.5°C above pre-industrial levels.<sup>3</sup>

This target and the 2050 net-zero target were set on the assumption that the low-carbon transition would apply at a reasonable pace, and that the most ambitious goals of the Paris Agreement (limiting temperature rises to 1.5°C) would remain achievable. However, the latest scientific data shows that achieving these goals is unlikely, due to slower-than-expected progress on the transition to date, and the pace of temperature rises.

The Trustee remains supportive of the net-zero transition, believing that this is in the best long-term interests of the Scheme's members. Nevertheless, it recognises the challenges these targets face and that they may need to be recalibrated. The Trustee plans to work with its investment adviser to re-consider these targets in the context of its wider fiduciary duty before its 2026 TCFD report.

The carbon footprint of the DB Sections' public corporate credit investments has fallen over the year, driven predominantly by portfolio companies having reduced their emissions. The largest portion of the carbon footprint reduction comes from companies in high-emitting sectors, such as energy and building materials. Additional factors driving this were portfolio turnover (more carbon-intensive positions were replaced with less carbon-intensive ones) and the inclusion of new data from companies not covered. Whilst the carbon footprint has fallen over the last year, it remains slightly above the Scheme's baseline; this continues to be an important area of focus for the Trustee.

The Trustee acknowledges that this figure can fluctuate annually due to portfolio changes and factors outside of the Trustee's control, such as market movements. Progress towards the target, therefore, is not necessarily expected to be linear. Given that the global transition is not on track and emissions

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<sup>3</sup> Whilst global average temperatures for the year in 2024 exceeded the 1.5°C level for the first time, temperatures would need to exceed 1.5°C consistently over a multi-decade period for the Paris Agreement to be breached.

continue to rise, continuing to progress against such targets (whilst being consistent with the Trustee's wider fiduciary duties to members) is expected to be challenging unless there is greater support from global policymakers.

A broad set of actions underpin the Trustee's decarbonisation efforts, including active stewardship. The Trustee will continue to work with GSAM to ensure that direct company engagements seek to emphasise and influence decarbonisation progress.

### **What's next?**

Climate change is well integrated into the ongoing management of the Scheme, with the Trustee monitoring developments on a quarterly basis and providing annual climate disclosure reporting. As part of this, the Trustee reviews the Scheme's investment and funding strategy to ensure it remains appropriate following any significant developments.

Following work over the past year, the Trustee continues to build knowledge through experience and training and has identified areas for further focus in the coming months. The Trustee's stewardship policy has helped to focus engagement efforts on behalf of the Scheme, and the Trustee will continue to review progress and hold the Scheme's investment manager to account. To support this, at the time of writing, the Trustee is seeking to incorporate additional asset classes into the reporting they receive on GSAM's stewardship approach to aid monitoring. As mentioned, the Scheme's climate targets will also be reviewed in the coming year.

Recognising climate change as one of a number of important responsible investment themes, the Trustee will maintain a holistic approach to responsible investment, considering climate change alongside factors such as human rights, business ethics and nature.

**BAE Systems Pension Scheme Climate Disclosure  
Report  
31 March 2025**

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The Department for Work and Pensions has provided recommendations for UK pension scheme trustees for integrating the Task Force on Climate-related Financial Disclosures ('TCFD') framework into their investment and governance processes. This report covers the defined benefit ('DB') Sections of the BAE Systems Pension Scheme ('the Scheme'), over the Scheme's financial year ending 31 March 2025. This report outlines how all four elements of the TCFD framework – Governance, Strategy, Risk Management and Metrics and Targets – have been applied to the Scheme.

## **1. Governance**

### **The Scheme**

This report focuses on the defined benefit ('DB') Sections of the Scheme. There are two Sections providing DB benefits to members: the BAE Systems DB Section and the Airbus DB Section.

The DC Section referenced in previous years is no longer included in the report, following its transfer to a master trust arrangement with Mercer in 2023/24. The DC Section now consists solely of a facility for members to pay Additional Voluntary Contributions ('AVCs') to enhance their pensions at retirement. Most members' AVCs are invested through the Mercer Master Trust ('MMT'), which is a DC Master Trust established by the Company. No new investments are available, but members can pay into their existing arrangements. Due to the small size of the AVCs that remain outside of the MMT relative to the wider Scheme and the limited scope for changing how they are invested, AVCs are excluded from this report.

As at 31 March 2025:

- the BAE Systems DB Section had c.£17.9bn of assets;
- the Airbus DB Section had c.£2.6bn of assets.

### **Organisational structure and responsibilities**

The Trustee has overall responsibility for all investment matters, including responsible investment and managing the Scheme's climate-related risks and opportunities. As part of the Trustee's integrated approach to risk management and the governance of Environmental, Social and Governance (ESG) factors, the Trustee maintains policies that cover its approach to responsible investment, climate change and stewardship.

The Scheme has a Funding & Investment Committee ('FIC'), whose role is to oversee Scheme funding, investment and covenant matters and to make appropriate recommendations to the Trustee. The FIC considers actuarial matters, and monitors investment risks and opportunities – including climate-related and broader ESG issues (where relevant). It also periodically reviews the Scheme's overall investment strategy and makes recommendations to the Board and Trustee where it believes changes are required. The Trustee considers such recommendations and agrees to key decisions. To ensure proper understanding of the issues at the Trustee Board level, the FIC's composition is a subset of the Trustee Board and is determined by the Trustee. It is supported at its meetings by members of the Trustee Pensions Team ('TPT'), Goldman Sachs Asset Management ('GSAM') – the Scheme's investment manager – and external advisers.

The Trustee understands the importance of allocating sufficient time and resources at its meetings to the governance of climate-related risks and opportunities, given its recognition that climate change risk is an important factor in determining the Scheme's funding strategy. For this reason, climate-related issues are discussed in the majority of FIC meetings, and at Trustee Board meetings where

relevant. The Trustee ensures it takes time to understand and consider the analysis and advice it receives in relation to climate-related risks and opportunities. This scheme year, there were five FIC meetings, with relevant external advisers attending to report to the FIC. FIC discussions, including climate matters, were reported to the Trustee in all four of the Trustee meetings in the year, where it was relevant. The Trustee is committed to fostering high-quality dialogue between all those involved in overseeing the Scheme's climate-related risks and opportunities. Where relevant, GSAM takes part in the FIC's training sessions to further ensure alignment between stakeholders.

The Trustee's advisers consider climate-related risks and opportunities in detail. The Trustee's investment adviser provides advice on investment strategy, the actuary on funding strategy, liabilities and longevity, and the covenant adviser on financial exposure to the sponsor. The Trustee's assessments of its advisers include their contributions to helping the Trustee to consider climate change. The Scheme's investment adviser – Redington – is evaluated against key strategic objectives on a quarterly basis, including ESG issues. The Trustee uses these reviews to ensure its advisers adequately identify and consider climate-related factors and their significance to the Scheme. Feedback is provided to the advisers if the FIC or Trustee identify any areas of concern in their review.

Additionally, GSAM, being responsible for the investment of the Scheme's assets, is monitored and assessed by the investment adviser on a quarterly basis, including its performance on responsible investment matters (including climate change, stewardship and climate data provision). Any of the monitoring areas that are outside of expectations are discussed with the FIC, and next steps agreed. As part of ongoing risk management for the DB Sections, the Trustee Board and FIC also receive annual reporting on progress towards the 2030 decarbonisation target.

The Trustee and the FIC receive ongoing training to keep abreast of regulatory requirements and appropriate integration of climate-related considerations. The training received over the scheme year was delivered by Redington and is as follows:

- **Responsible investment update (May 2024):** This update covered: an overview of the uncertainties posed by the physical risks of climate change, in particular considering the potential impact of climate tipping points<sup>1</sup>; the transition to a low-carbon economy; considering how investors can start to integrate nature into net-zero strategies; social issues; and stewardship.
- **Decarbonisation plan for public corporate credit (November 2024):** The session provided an overview of GSAM's proposals for better incorporating net-zero alignment into the ongoing management and monitoring of the DB Sections' public credit portfolios. This was done after the Trustee asked for more information on GSAM's plan for making progress versus the Scheme's target.
- **Decarbonisation plan for public corporate credit and climate targets (March 2025):** The update discussed the transition to a low-carbon economy, noting the decreasing likelihood of limiting temperature increases to 1.5°C as per the most ambitious goals of the Paris Agreement. The Trustee decided to retain existing climate-related targets but acknowledges that it may need to adjust them in the future. Following the November FIC meeting, the Trustee also agreed to incorporate GSAM's proposed KPIs to support monitoring of the Scheme's climate target.

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<sup>1</sup> Tipping points are critical thresholds in a system that, when exceeded, can significantly accelerate climate change, often with an understanding that the change is irreversible. An example is the melting of permafrost, which is believed to hold twice as much carbon as the amount that is already in the atmosphere.

Trustee Board members (and others who support the Trustee) also engage in self-learning (such as reading pension newsletters and regulatory articles and attending seminars) and receive training related to climate risk management.

### **BAE Systems Pension Scheme's Investment Manager – Goldman Sachs Asset Management ('GSAM')**

The assets of the DB Sections are managed by GSAM; this includes responsibility for the appointment of external managers. GSAM reports on a quarterly basis to the Trustee and to relevant committees.

Each asset class team at GSAM recognises that ESG factors can have a material impact on the long-term financial performance of the underlying investments of the Scheme. GSAM therefore incorporates climate change and other ESG considerations into its wider investment processes, alongside traditional financial analysis. In addition to engaging with the external managers, GSAM also engages on ESG issues with investee companies and other assets in which it invests.

## 2. Strategy

The Trustee integrates climate-related factors into the Scheme's funding and risk management processes for assets, liabilities, and employer covenants.

In 2023, the Trustee carried out scenario analysis to help assess the short, medium, and long-term impacts of climate-related risks and opportunities on the Scheme's investment and funding strategy.

Following the Pensions Regulator's ('TPR') latest guidance, and the portfolio restructuring and the switch to a cash-flow-matching strategy which occurred prior to the scheme year, the Trustee, together with its investment adviser, reviewed the existing scenario analysis. These discussions included considering the scale of the changes to the Scheme's investment and funding strategy, data availability and modelling, and any improvements in industry best practice in climate scenario analysis methodologies. As there have been no significant changes to the portfolio or observed major advances in scenario analysis methodologies, the Trustee determined that the existing analysis remains valid for the assets and liabilities of the DB Sections. However, the covenant analysis has been refreshed using new climate disclosures from the sponsoring employers.

The Trustee recognises the limitations of current climate scenario models, including the potential underestimation of short and medium-term risks and the overlooking of potential tipping points. Due to these limitations, the primary value derived from scenario analysis at present is in highlighting different climate risks and the need for appropriate risk management.

The Trustee stays informed on industry-wide developments, based on advice from the Scheme's investment adviser, and aims to improve scenario analysis as methodologies evolve.

### Types of climate risk to which the Scheme is exposed

Pension scheme assets face transition and physical risks from climate change:

- **Transition risk** stems from policy actions for decarbonisation, which can alter asset values through, for example, the impact of carbon pricing or the pace of renewable energy adoption. Carbon-intensive investments may bear more transition risk, while less-carbon-intensive investments may offer opportunities. Scenario analysis suggests that transition risk might be more significant than physical risk in the next few decades. The Trustee notes that analysis methodologies continue to evolve, however, so keeps this risk under review.
- **Physical risk** arises from weather changes and extremes, such as floods, hurricanes, droughts, or chronic effects like higher temperatures, humidity and ocean acidity. These can damage physical assets, especially property and infrastructure in coastal areas, and have wider impacts on labour productivity, agricultural yields, economic growth, inflation and macroeconomic stability. Scenario analysis suggests that this might become more significant from 2050 onwards.

These risks and opportunities may affect asset values and pension scheme liabilities through changes in interest rates, inflation and mortality rates. Additionally, climate risks could weaken employer covenants supporting DB pension schemes, including the Scheme, if not addressed.

## Time horizons

The Trustee evaluates climate risks and opportunities over the short, medium and long term, as the time periods may affect the Scheme’s investment and funding strategy differently:

### The time horizons monitored by the Trustee

Short term	<p><b>Three years from now</b> – the Trustee believes this is an appropriate time horizon for capturing the more immediate risks and opportunities to the Scheme posed by climate change; this also aligns with the three-year actuarial valuation cycle.</p> <p>Although the short term is defined as three years, the Trustee monitors and considers climate risks and opportunities on an ongoing basis as part of FIC and Trustee meetings.</p>
Medium term	<p><b>The next decade</b>, given the potential changes in climate risk data quality and the importance of significant changes being made this decade to limit global warming.</p>
Long term	<p><b>2050</b>, as this aligns with the Trustee’s net-zero target. This time frame is also helpful given the long-term nature of the Scheme’s liabilities and investments.</p>

### Examples of climate risks and opportunities for assets over different time horizons

	Short term (three years from now)	Medium term (the next decade)	Long term (2050 and beyond)
<b>Risks and/or opportunities</b>	Carbon prices Regulation Changes in consumer behaviour Competitive pressures Extreme weather events	Carbon prices Regulation Changes in consumer behaviour Competitive pressures Extreme weather events	Extreme weather events Sea level rises Commodity scarcity Food price inflation Population migration Productivity loss
<b>Asset classes affected</b>	Equities Corporate credit Sovereign debt Infrastructure Property	Equities Corporate credit Sovereign debt Infrastructure Property	Equities Long-dated fixed income Infrastructure Property

The analysis that follows aims to assess the potential impact of the identified risks and opportunities on the assets, liabilities, and funding and investment strategies.

## Climate scenario analysis

This section of the report covers the scenario analysis that has been performed for the DB Sections of the Scheme and includes analysis for the:

- DB assets;
- DB liabilities (and funding);
- Sponsor covenants.

As mentioned previously, this analysis has been refreshed for the sponsor covenants but not for the DB assets and liabilities for this year's report.

For the DB assets, this data was produced with support from BAE Systems Pension Funds Investment Management ('BAPFIM'), the Scheme's investment manager prior to the transfer to GSAM in 2023, drawing on selected data provided by Planetrics, a McKinsey & Company solution (which does not include investment advice).<sup>2</sup> As shown in the 2024 report, the Trustee has used Planetrics' data to help inform its assessment of the climate risks and opportunities potentially faced by the DB Sections' assets as at 31 March 2023 (valued at £20.5bn on 31 March 2025). This forms an input into Trustee discussions regarding strategic asset allocation and engagement activities for the DB Sections.

## Climate scenarios used for the asset and liability analysis

The analysis adopts the climate scenarios of the Network of Central Banks and Supervisors for Greening the Financial System ('NGFS'). The NGFS scenarios offer a common basis for the financial sector to assess climate risks, and are used by investors, banks, and regulators, including the Bank of England. The Scheme's analysis uses three reference scenarios from the NGFS scenario set, covering a broad spectrum of emissions and temperature trajectories. These scenarios illustrate lower and higher-risk outcomes relative to a baseline scenario:<sup>3</sup>

- **Hot house world:** emissions rise until 2080, leading to over 3°C of warming and severe physical risks, especially in equatorial and developing regions. While long-term impacts are significant, near-term financial losses are limited due to discounting and slower life expectancy improvements than in the baseline scenario. However, current global trajectories are closest to this scenario, suggesting risks may materialise sooner than models predict; the Trustee therefore plans to consider this in more detail.
- **Orderly transition:** climate policies are introduced early and gradually become more stringent, limiting warming to well below 2°C. Physical risks are smaller than in the 'hot house world' scenario. In contrast, transition risks are more significant: carbon-intensive sectors experience increasing costs due to rising carbon prices and reduced revenue from

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<sup>2</sup> This data represents BAE Systems Pension Funds Investment Management's ('BAPFIM') own selection of applicable scenarios and its own portfolio data, as at the time of this analysis. BAPFIM – the Scheme's investment manager prior to GSAM – was solely responsible for, and the report represented, such scenario selection, all assumptions underlying such selection, and all resulting findings, conclusions and decisions as at the time of the analysis. McKinsey & Company is not an investment adviser and has not provided any investment advice.

<sup>3</sup> Climate risks in each scenario are quantified relative to a 'baseline' pathway. In this baseline, no additional climate policies are introduced beyond those that are currently in place, and there is no further change in climate beyond the level of warming that has already occurred. This effectively assumes that markets today have not priced in transition or physical risks from climate change.

falling demand, while low-carbon sectors benefit. This has significant impacts on sectors like energy and transport from the present onwards.

- **Disorderly transition:** transition policies kick in ten years later than under the 'orderly' scenario, but warming is still limited to well below 2°C. This requires carbon prices to increase more rapidly, reaching higher levels than in the 'orderly' scenario. Fossil fuel volumes are reduced more drastically to enable decarbonisation over a shorter period, resulting in higher levels of transition risk, particularly for more carbon-intensive sectors.

### Climate risk to the assets of the DB Sections

A summary of the key takeaways of the analysis for the assets of the Scheme's DB Sections is provided below, with further detail on the results provided in the appendices.

- 1) In the scenarios performed, the DB Sections' portfolios experience a slight fall in value in the hot house world scenario, whilst experiencing positive impacts in the two transition scenarios when including the renewables allocations.**

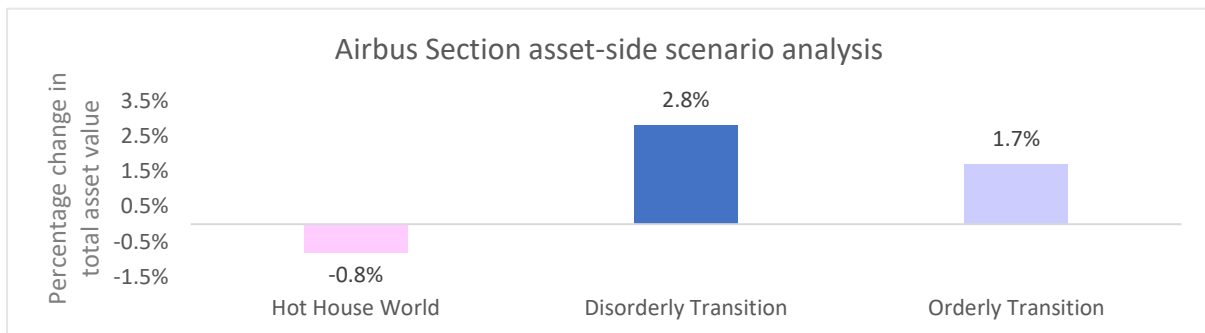
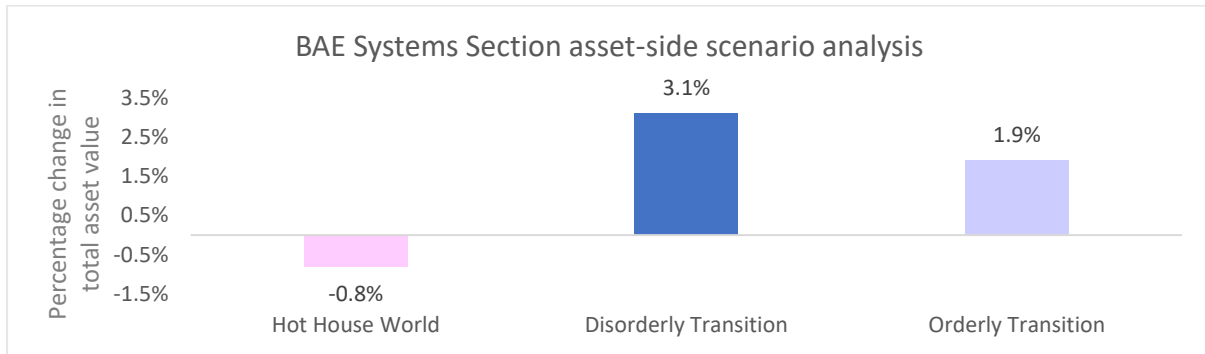
As shown in the chart that follows, only the 'hot house world' scenario negatively affects the Scheme's total asset value, due to the extent of the physical risks modelled. In contrast, both the 'orderly' and 'disorderly' scenarios show positive impacts, largely driven by strong performance from the Scheme's renewable energy investments during the transitions. Real estate and non-renewable alternatives show the greatest downside risk across the scenarios.

In all scenarios, the impact on the total asset value is no greater than +/- 4% relative to the baseline pathway. This reflects the portfolio's limited exposure to high-risk sectors and emerging markets, the positive modelled performance of the renewables, and the discounting of long-term risks and opportunities to show their impact on the present value of the DB section's assets.

The Trustee's focus to date has been on the 'disorderly' scenario, as it affects the DB Sections' assets (the majority of total Scheme assets) most significantly when renewables are excluded from the analysis. This is due to the combined transition and physical risk impacts modelled – more information is included in the appendices.

BAE Systems and Airbus DB Sections asset value impact in the three scenarios, relative to the baseline scenario

**Key takeaway:** the Scheme’s assets are modelled as increasing in value in the ‘orderly’ and ‘disorderly’ transition scenarios, owing to the renewable energy investments. In contrast, the Scheme’s assets experience a slight fall in value in the ‘hot house world’ scenario, where physical risk is highest. The small size of the impact is partly driven by the discounting applied to the stresses.



Source: BAPFIM drawing on selected data provided by Planetrics as at the time of the scenario analysis. Portfolio as at 31 March 2023. The baseline scenario assumes no further future changes in physical climate or in climate policy. Note that the impact shown is the total impact on the asset value in each scenario.

2) **Climate transition risks are more significant for the Scheme than physical risks in the scenarios modelled. Of the different transition risks, direct carbon costs are the dominant risk.**

In the ‘disorderly’ transition scenario, carbon costs are the main driver of risk, leading to a 7% drop in asset value for the BAE Systems Section and 8% for the Airbus Section versus the baseline. However, the model accounts for companies’ ability to reduce emissions, pass on costs, or gain market share—mitigating some of the impact. A detailed breakdown of the modelled impacts of specific risks and opportunities identified in the table on page 7 is shown for the disorderly transition – the Trustee’s scenario of focus to date – on page 10 in the appendices.

In light of the potential impact of transition risks on the Scheme’s investment and funding strategy, the Trustee requires GSAM to engage with the companies (issuers of public corporate credit held by the Scheme) that contribute most to the Scheme’s financed emissions. This is detailed in the Risk Management section. The Scheme’s renewable energy investments may also provide a degree of protection against transition risks, as mentioned previously.

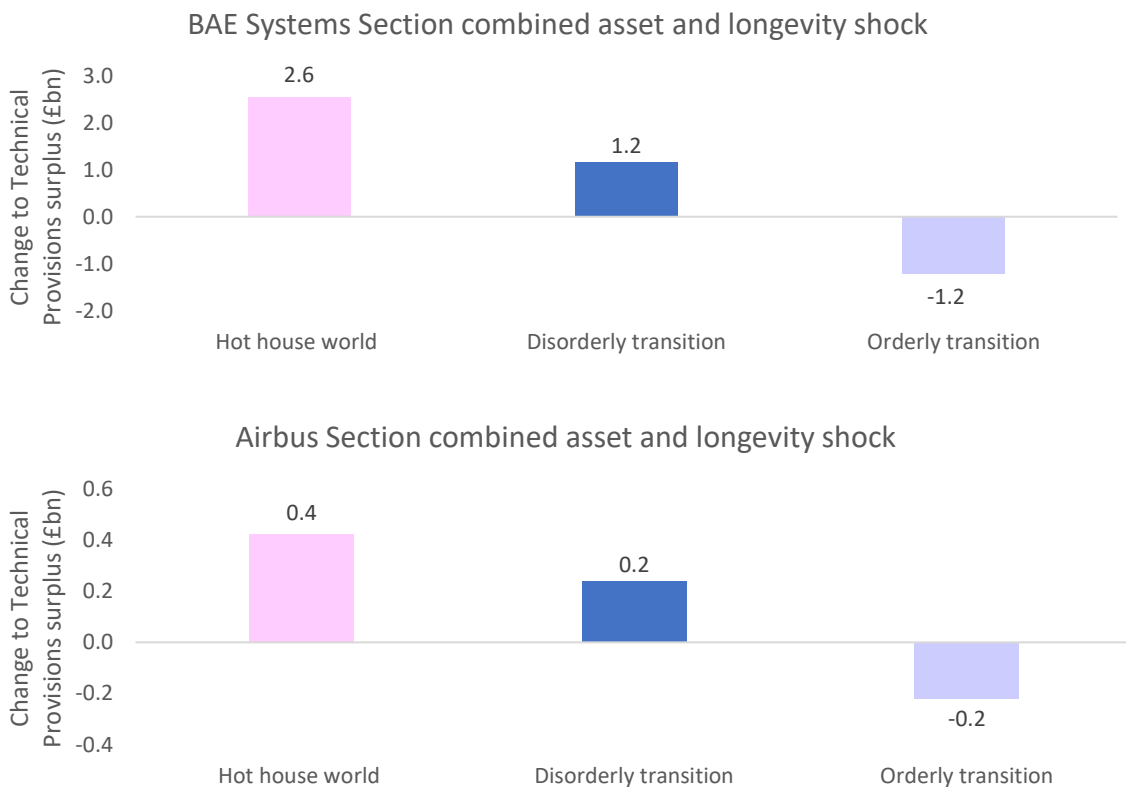
With global temperature increases currently being on track for closer to 3°C by the end of the century – well above Paris Agreement targets – physical risks are expected to increase. As such, the Trustee plans to consider the portfolio’s resilience to physical risks in more detail in the near future.

**DB Sections liability scenario analysis**

The Trustee consulted the Scheme Actuary, Hymans Robertson, on how the different climate scenarios could affect the DB Sections' liabilities and funding strategy. The analysis used the same scenarios as for the DB assets: ‘disorderly’ and ‘orderly’ transitions and a ‘hot house world’ scenario with no transition.

As shown in the table after the charts, mortality is crucial in all scenarios. In the ‘hot house world’ and ‘disorderly’ scenarios, life expectancy declines due to climate change impacts and pollution. In contrast, the ‘orderly’ transition scenario sees improved life expectancy from early emissions reductions resulting in minimal physical risk, meaning this is the only scenario that reduces the Scheme’s surplus.

**Impact on surplus in various climate change scenarios**



Source: Hymans Robertson as at 31 March 2023, using data provided by BAPFIM and Planetrics. The impact on the surplus is calculated by combining the asset and liability shocks.

### Modelled changes in life expectancy for males and females in each transition scenario

Impact on cohort life expectancy from age 65 (years)	Male			Female		
	Hot House World	Disorderly Transition	Orderly Transition	Hot House World	Disorderly Transition	Orderly Transition
<b>Currently age 50</b>	-4.2	-1.5	+2.1	-4.6	-1.9	+1.8
<b>Currently age 65</b>	-1.5	-0.5	+1.1	-1.8	-0.8	+1.0

Source: Hymans Robertson as at 31 March 2023.

### DB employer covenant scenario analysis summary – BAE Systems plc and Airbus SE

The Trustee's covenant adviser assesses that the DB covenants appear fairly resilient to climate risks in the short to medium term, with risks increasing in the longer term. Having reviewed the refreshed covenant analysis provided, the Trustee is currently satisfied that the sponsoring groups are developing strategies to address the anticipated risks and opportunities arising from climate change. Therefore, the Trustee sees no reason at present to alter the Scheme's funding strategy as a result of this covenant analysis. Instead, it will continue to review the approaches of the sponsoring groups in light of the risks and opportunities to which their businesses are exposed, performing formal analysis triennially or sooner following meaningful changes that could affect the covenants or the Scheme's funding strategies.

The covenant adviser's more detailed assessment has been included in the appendices.

### Strategy section – summary

The Scheme's investment and funding strategy appears relatively resilient across the assessed climate scenarios. The Trustee acknowledges the limitations of current quantitative scenario analysis and therefore maintains a cautious risk management approach.

Scenario analysis helps the Trustee consider various climate-related risks and opportunities, highlighting the significance of both physical and transition risks. While transition risks are currently more significant in the analysis, physical risks are expected to increase, prompting further consideration of the portfolio's resilience.

The Trustee does not plan to change the Scheme's funding strategy based on the current analysis but will use it to inform engagement efforts to improve the Scheme's climate risk profile.

### 3. Risk Management

As outlined in the Governance section, the FIC oversees the identification of climate-related risks and opportunities. Advice, data and other input from third parties is sought as needed.

The Trustee's two key beliefs on climate change and influencing positive change are shown below:

#### 1. **Climate risks and long-term returns are interlinked**

Climate risks and opportunities are assessed in terms of physical risks from climate change and transition risks from the shift to a low-carbon economy. These risks will affect the Scheme's investment outcomes. As a systemic risk, the pricing in of climate change by markets remains uncertain, making regular investment strategy reviews essential.

To date, the Trustee's assessment is that transition risks will dominate until mid-century, after which physical risks may become more significant, though they are already visible today. As we transition towards a low-carbon economy, industry transformations will affect asset returns and risks. With the world on track for nearly 3°C of warming – far above the goals of the Paris Agreement – physical risks are expected to increase and may manifest earlier. Therefore, while transition risks are currently prioritised over physical risks, the Trustee plans to extend investigations into portfolio resilience to physical climate risks in the near future.

The Trustee uses tools to assess and manage climate-related risks and opportunities as these are expected to affect long-term returns. The Trustee conducts climate scenario analysis and has adopted metrics to measure the Scheme's emissions and emissions intensity. Reduced financed emissions may correlate with lower climate transition risk, depending on decarbonisation policies and other factors like the degree to which nature is protected. To manage transition risks, the Trustee has set decarbonisation targets (see the Metrics and Targets Section) and engages with portfolio companies through GSAM to encourage decarbonisation. The Trustee will assess whether these targets need recalibration in the near term to ensure they effectively manage financial risks amid slower-than-expected progress to a low-carbon economy.

#### 2. **Stewardship – including engagement – is an effective way to influence positive change to manage climate risk**

The Trustee engages with companies on climate change to drive positive action and mitigate risks, with divestment being reserved as a "last resort" option if companies do not adapt sufficiently and the risk of continuing to hold the investment is deemed to be too great. Engagement sends a message to boards and management and can influence companies to change. The Trustee's climate risk strategy aligns with its responsible investment beliefs, with the Trustee questioning and challenging companies on their decarbonisation strategies. As part of its stewardship and engagement processes, GSAM produces the list of companies (issuers of public corporate credit held by the Scheme) that contribute most to the Scheme's financed emissions, and report annually on engagements with these and other companies.

## How are risks identified and managed by the Trustee?

### Risk register and regular reporting

The Trustee maintains a quarterly-reviewed risk register, with specific controls for each risk. The FIC, reporting to the Trustee Board, regularly considers climate-related risks and opportunities. The climate risks in the Scheme's risk register were reviewed and updated during the scheme year to ensure they remain a priority focus for the Trustee. The Scheme's investment adviser and investment manager identify new climate risks and bring them to the FIC which advises the Trustee if action is needed. The FIC also monitors progress towards the Scheme's 2030 target.

In Q1 2025, the Trustee adopted key performance indicators ('KPIs') for emissions, alignment, engagement and exclusion to support the Scheme's decarbonisation target and climate ambitions. These KPIs, proposed by GSAM, were incorporated into existing reports and will be monitored annually:

- **Emissions:** incorporating the Trustee's decarbonisation targets.
- **Alignment:** increasing the proportion of assets aligned with the Paris Agreement relative to a reference index over time.
- **Engagement:** engaging with companies responsible for 90% of portfolio financed emissions by 2030.
- **Exclusions:** prohibiting additional exposure to companies with revenue from oil sands and thermal coal.

These KPIs are used for risk monitoring and are considered within the wider context of the Trustee's fiduciary duty.

### Climate-related opportunities

The Trustee has previously invested in renewable energy assets as part of its illiquid asset portfolio (c.£1.7bn, or c.8% assets as at 31 March 2025). This allocation could help mitigate the Scheme's transition risk due to its likely positive impact on the global decarbonisation effort.

### Developing climate change tools and reporting

To integrate climate change into the Scheme's investment process, the Trustee, via GSAM, monitors emissions, engages with companies and managers, and reports annually in line with the Climate Change Governance and Reporting regulations.

### Engagement

Stewardship, and more specifically, engagement, are central to the Trustee's risk management approach. Until the sale of the Scheme's physical equity holdings at the end of 2023 this also included voting. GSAM, as the Scheme's investment manager, handles engagement on the Trustee's behalf, focussing on climate-related risks and opportunities, nature, and biodiversity.

GSAM aims to preserve and enhance long-term shareholder value, in part through considering ESG factors. Their responsible ownership principles and the Trustee's stewardship policy guide all engagements. GSAM regularly reports on engagements for all relevant issuers.

Engagements involve frequent meetings over years, aiming to make a positive impact. Investors may disinvest or continue engaging based on their belief in potential change. In 2023, the Trustee developed its stewardship policy with its investment adviser, including escalation for unsatisfactory

engagements and key themes for efforts. This policy has been adopted by GSAM for the Scheme (and communicated to other managers).

The Trustee is aware of greenwashing risks, where companies may exaggerate their environmental support. GSAM's in-depth engagements focus on assessing companies' strategic positioning and decarbonisation plans, beyond their publicly disclosed climate ambitions. The Scheme's investment approach, which employs segregated mandates and a single outsourced investment manager for most assets, provides the Trustee with greater visibility and ensures alignment with its Stewardship Policy.

### Engagement activity – DB Sections

For the period 1 April 2024 to 31 March 2025, GSAM engaged with 75 companies on behalf of the Scheme. 58 engagements related to the environment (including climate and nature).

Below is an example of one engagement by GSAM on climate and nature during the reporting period.

#### GSAM engagement case study: a materials company

GSAM had identified this company for engagement under its Climate Transition engagement initiative, in which it seeks to engage with companies in high-impact industries on the implementation of a robust and quantifiable climate transition strategy. Based on its screening tool, GSAM identified the company's decarbonisation strategy and capital allocation strategy as key areas for engagement with the company.

In June 2024, GSAM engaged with the Investor Relations team and the Head of Climate & Energy. GSAM had previously engaged with the company in February 2023. During the June engagement, GSAM encouraged the company to provide greater clarity on its unabated carbon-intensive assets and products.

The company is working to reduce the use of coal in its operations, but requires greater local regulations, waste management and infrastructure to see a more consistent decrease in coal use. The company is considering setting a 2030 target but will require greater access to alternative fuels before this can be published.

GSAM shared its view that publishing a capital-allocation plan would allow shareholders to better assess the alignment of capital expenditures with progress toward their climate objectives.

## 4. Metrics & Targets

### METRICS

The Trustee has chosen the metrics outlined below. The Trustee reviews these metrics annually to ensure they remain appropriate and may update these metrics due to changes in data quality, data availability, emergence of additional robust metrics, new methodologies, or wider industry developments. GSAM provides the data for these metrics for the Scheme's DB Sections.<sup>4</sup>

The Trustee has replaced its non-emissions-based metric with data quality, measured by the PCAF Data Quality Score; previously, the metric used was climate value at risk (the output of the asset-side scenario analysis). This change reflects the limitations of scenario analysis mentioned previously, and the benefits of monitoring data quality. Doing so will help assess the reliability of emissions data and support efforts to improve it over time, aiming to increase reported data and reduce the use of estimates where possible.

#### Metrics selected by the Trustee

DWP <sup>5</sup> suggested metric	Metric selected by BAESPS Trustee	Rationale for selected metric
Total financed emissions	Total financed emissions	Recommended by the DWP.
Emissions intensity	<ol style="list-style-type: none"> <li>Carbon footprint</li> <li>Weighted average carbon intensity ('WACI')</li> </ol>	Carbon footprint is recommended by the DWP, and WACI is optional. The Trustee believes that both metrics have merit and deliver useful information. While the carbon footprint assesses how carbon efficient the portfolio is in terms of emissions per million pounds invested, the WACI assesses the portfolio's exposure to carbon-intensive companies.
Additional metric	PCAF Data Quality Score	Measures the quality of disclosed financed emissions data. The Trustee has selected this new metric to gauge the accuracy of underlying emissions data.
Portfolio-alignment metric	Science Based target initiative ('SBTi')	This forward-looking metric examines whether a voluntarily disclosed company decarbonisation target is aligned with a relevant science-based pathway, in line with the with the goals of the Paris Agreement. The Trustee uses a framework to track the SBTi alignment of investee companies along with engagement progress to help influence net-zero progress. This metric is based on voluntary targets set by corporations and, as such, is to some extent dependent on the policy environment evolving to better support the transition to net zero. As a result, whilst the Trustee views the SBTi metric as the most appropriate alignment metric at this time, there is

<sup>4</sup> As the remainder of the Scheme's DC assets (except for certain AVC member benefits) were transferred out of the Scheme or bought out in the previous scheme year, metrics and scenario analysis for DC assets are no longer included in the Scheme's climate disclosure report.

<sup>5</sup> Department for Work and Pensions.

		unavoidable uncertainty that could cause a review of this in the future.
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The Trustee receives analysis in relation to these metrics annually across the relevant assets of the DB Sections of the Scheme, as far as it is able to do so. The Trustee has previously expressed its desire to increase the proportion of the portfolio for which it can report data and is pleased to have been able to do so in this report.

Historically, emissions-based metrics have been calculated for public corporate credit, government bonds, and alternative renewables. As shown later in this section, this year marks the first time the Trustee has received emissions data for a portion of the property portfolio. While coverage for this asset class (currently 66%) remains lower than others, it is expected to improve over time as data availability increases. GSAM was able to estimate the scope 1 and 2 emissions of the property portfolio based on electricity and gas consumption data from underlying managers, supplemented by industry estimates. Scope 3 property emissions are not yet reported given a lack of data from the underlying managers. More information is included in the appendices.

In addition, a further c.£1bn of renewable energy assets have been brought into scope versus last year, with emissions metrics now being proxied for these additional assets in line with previously reported assets.

For this report, data for the total financed emissions has now been scaled up to provide an indication of what the metrics would be for the Scheme if data was available for 100% of the assets covered in this report. Emissions intensity data has also been scaled up, as has been done in previous reports. The Trustee believes this is the most prudent approach, as opposed to assuming that assets that do not currently have data have zero emissions. Where this method has been applied, this has been mentioned in the notes below the relevant charts.

These enhancements have resulted in an increase in the reported total financed emissions compared to previous years. However, the Trustee views this as a positive development, reflecting improved data coverage, with emissions data now available for **60%** of the portfolio for the BAE Systems Section and **56%** for the Airbus Section (using either direct emissions data or proxies/estimates), compared to **44%** and **37%** last year, respectively.

The following tables show the asset allocation and data coverage for the DB Sections as at 31 March 2025 for the emissions-based metrics shown in this section. Information on the methodologies used to calculate the metrics contained in this section is detailed in the appendices. The Trustee recognises that GSAM has made efforts to provide the most accurate information given current data availability.

## Data coverage for BAE Systems Section and Airbus Section emissions metrics

## BAE Systems Section

Asset	Value as at 31/03/2025 (£m)	% of overall portfolio	Emissions coverage
Public corporate credit	3,879	21.7%	93.8%
Government bonds	3,915	21.9%	99.3%
Alternative renewables	1,480	8.3%	100.0% (proxied <sup>6</sup> )
Property	1,510	8.5%	66.0%
Assets with no emissions data	7,068	39.6%	N/A

## Airbus Section

Asset	Value as at 31/03/2025 (£m)	% of overall portfolio	Emissions coverage
Public corporate credit	301	11.5%	91.4%
Government bonds	741	28.4%	99.4%
Alternative renewables	222	8.5%	100.0% (proxied <sup>6</sup> )
Property	197	7.6%	59.0%
Assets with no emissions data	1,151	44.0%	N/A

## 1. Total financed emissions

The Trustee has chosen total financed emissions as the main metric for absolute emissions. The metric shows the total greenhouse gas emissions that are financed by the Scheme's investments.

There are three scopes of carbon emissions:

- **Scope 1** emissions are direct emissions from an entity's owned or operationally controlled sources;
- **Scope 2** emissions are those from the use of energy purchased by an entity (e.g. electricity);
- **Scope 3** emissions are indirect emissions from the use of a company's products, or any other emissions across its supply chain. They typically exceed scope 1 and 2 emissions.

The Trustee recognises the challenges associated with calculating scope 3 emissions, which are less consistently reported than scope 1 and 2 due to the complexity involved with measuring emissions across supply chains. To address this, scope 3 data in this report is estimated using MSCI's proprietary methodology. While this may introduce some estimation error, it is believed to provide greater consistency than alternative approaches, such as using proxy data.

The estimated scope 1 and 2 financed emissions for a given investment will form part of the scope 3 financed emissions for another investment. Aggregating the three emissions scopes would therefore lead to double counting, which may misrepresent the Scheme's financed emissions. Therefore, the

<sup>6</sup> The alternatives renewables portfolio consists of unlisted equity exposure to companies that operate within the renewables asset value chain, primarily renewable energy development and generation. The Scheme's exposure to these assets has been proxied for the purposes of the emissions analysis using comparable publicly listed companies.

Trustee has calculated and presented scope 3 emissions separately from scopes 1 & 2, in line with wider industry practice.

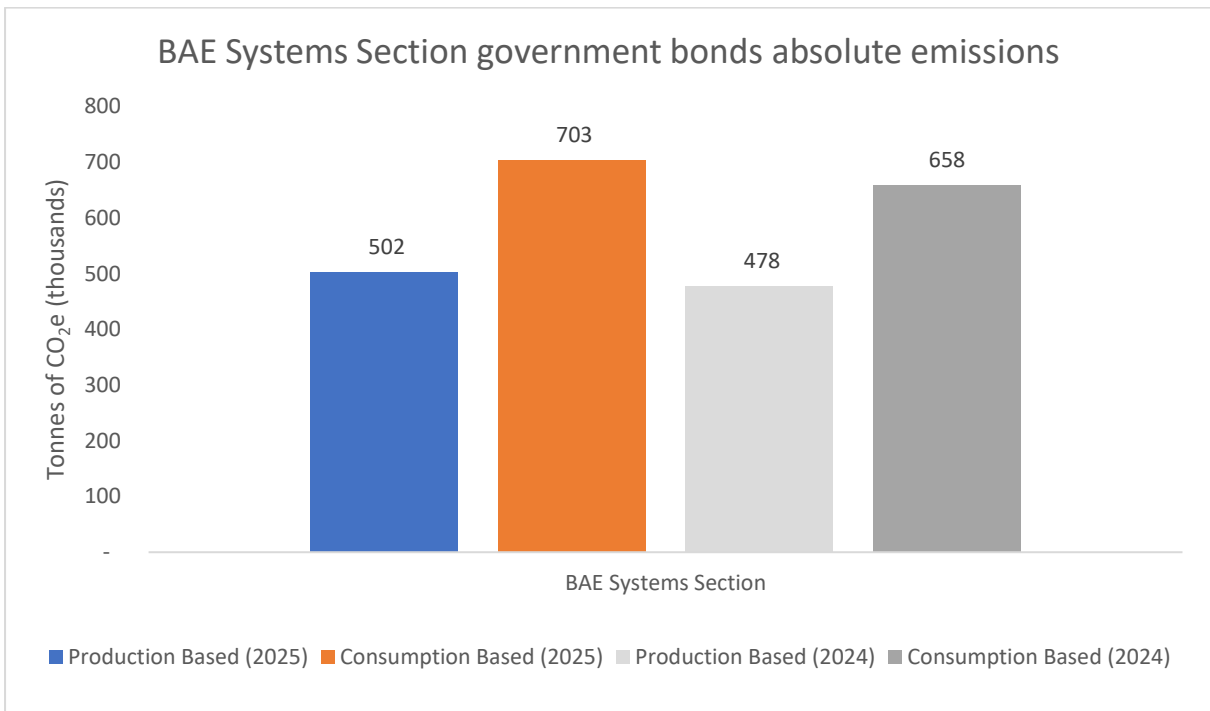
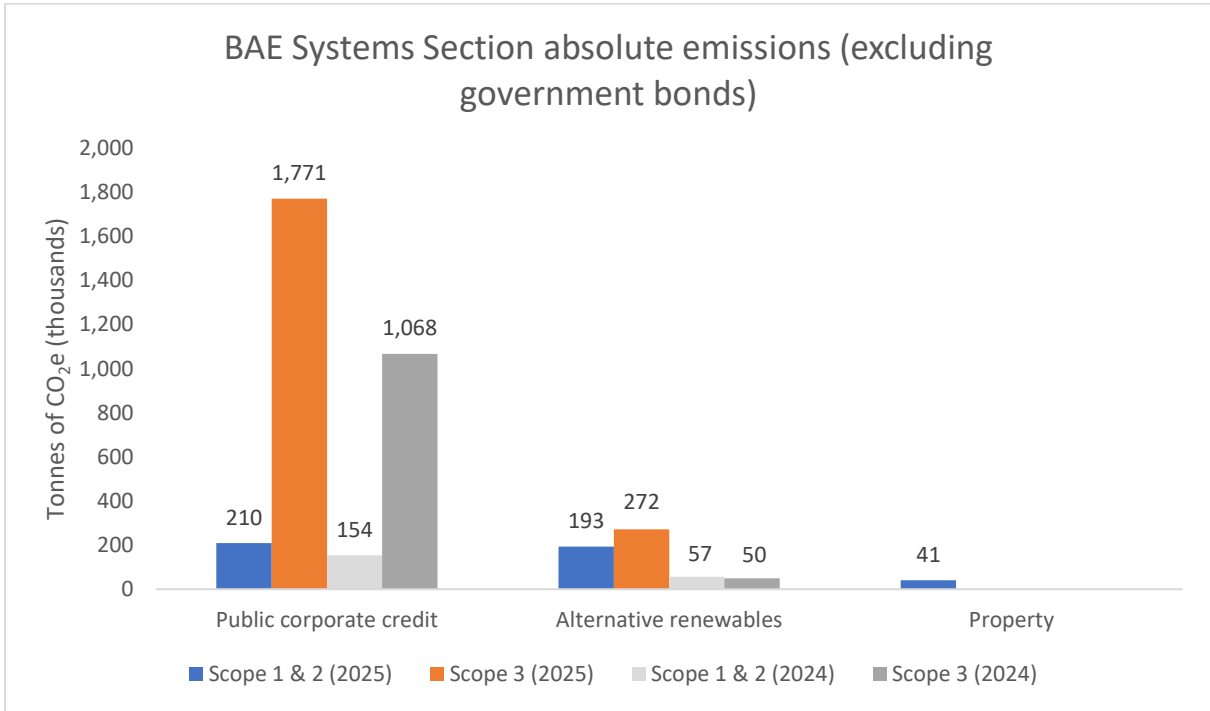
In light of the above, whilst the Trustee acknowledges the importance of seeking to measure and report scope 3 emissions, the Trustee at present maintains its focus on scope 1 and 2 emissions for the purpose of decision-making and drawing conclusions. This approach will be developed as industry practice evolves.

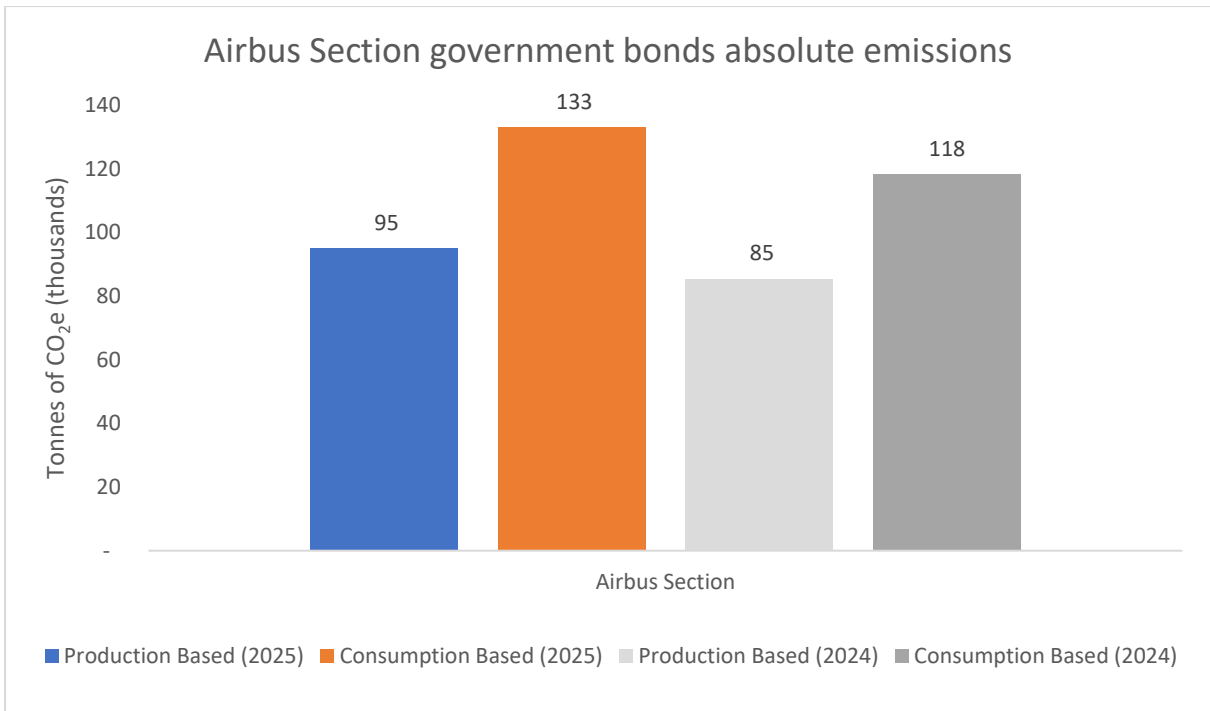
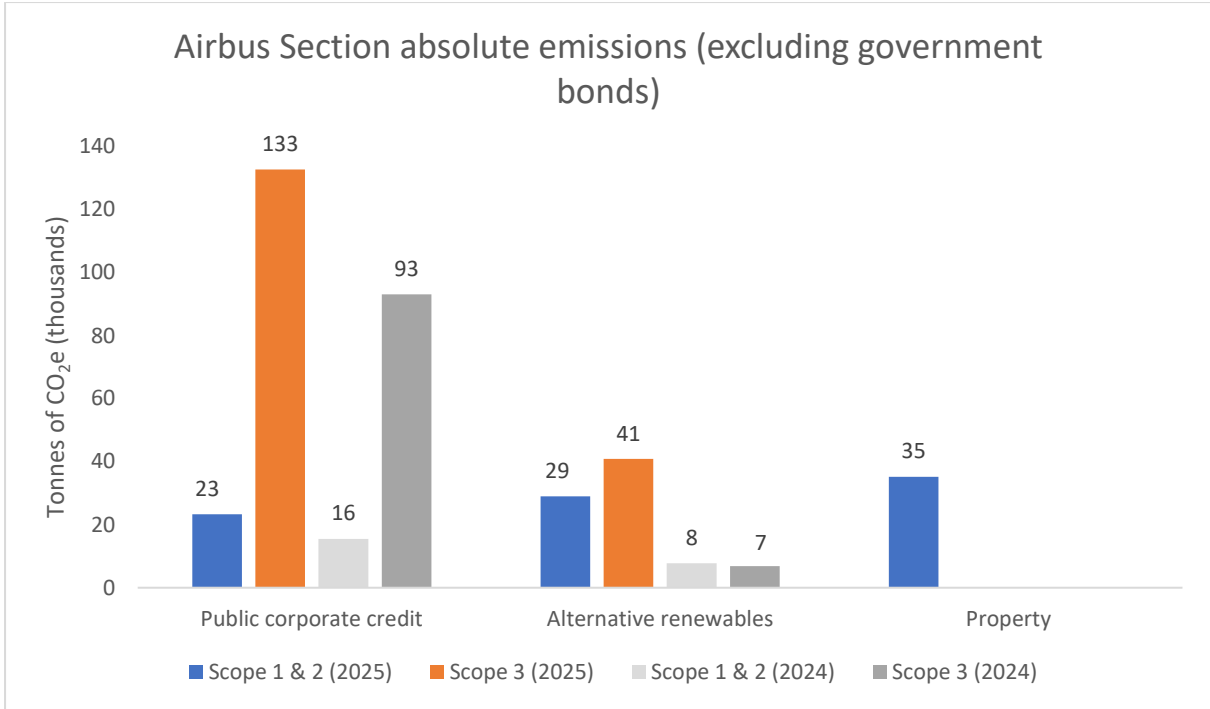
Financed emissions are calculated as the proportional share of the scope 1, scope 2, and scope 3 greenhouse gas emissions for each relevant investment, based on the size of the investment relative to the enterprise value including cash ('EVIC') of the respective company. The EVIC is a measure of a company's total value.

For government bonds, the Partnership for Carbon Accounting Financials ('PCAF') standard states that emissions should be categorised in terms of production-based emissions and consumption-based emissions. GSAM has aligned its approach with this standard. 'Production-based emissions' are the scope 1 emissions from the production of goods and services within a country, excluding land, land use change and forestry ('LULUCF'). 'Consumption-based emissions' are calculated by taking the scope 1 (excluding LULUCF), 2 and 3 emissions and subtracting emissions related to exports. As a result of this approach, emissions-based metrics for government bonds have been shown separately from emissions for other asset classes.

Total financed emissions (tonnes of CO<sub>2</sub>e) across the DB Sections' public corporate credit, renewables, property and government bond allocations

**Key takeaway:** total financed emissions have increased this year. The reason is an increase in data coverage, where data has been included for additional assets in the DB Sections' portfolios compared to previous years. More renewables assets have been brought into scope (with their emissions being proxied) and property data has been included for the first time.





Source: GSAM. Portfolio as at 31 March 2025. Note that emissions data is not available for all of the assets within each of the portfolios shown above. As a result, the emissions data that was obtained has been scaled up to provide an indication of what total emissions for these asset classes would be if there were no data gaps. For government bonds, production-based emissions are defined as scope 1 emissions (excluding land, land-use change and forestry). Consumption-based emissions are defined as scope 1 emissions (excluding land, land-use change and forestry), scope 2 and scope 3 emissions less exported emissions.

## 2. Emissions intensity

The Trustee monitors two emissions intensity metrics – carbon footprint and weighted average carbon intensity:

- **Carbon footprint** measures the carbon efficiency of a portfolio in terms of emissions per million pounds invested. Since it shows the emissions *per millions of pounds invested*, the metric is comparable between investments of different sizes. The carbon footprint is expressed in pounds sterling (i.e. tonnes of CO<sub>2</sub>e per million pounds invested) given the Scheme is a UK pension scheme.
- **Weighted average carbon intensity ('WACI')** measures the portfolio's exposure to carbon-intensive companies, assessing a company's carbon emissions per unit of revenue. It is a useful measure to compare companies in terms of the carbon intensity of their operations, with more emissions-intensive companies having steeper paths to decarbonisation. The WACI is expressed in US dollars (i.e. tonnes of CO<sub>2</sub>e per million dollars of revenue) as the approach used converts company revenues into US dollars to aid comparability between different companies for the purposes of this metric.

At a portfolio level, the emissions intensity metrics are calculated as the average of the emissions intensities of the underlying holdings, weighted by the value of each holding.

Differences in portfolio emissions intensities are driven by differences in sector and company exposure. Portfolios with higher exposures to high-carbon sectors such as utilities, non-energy materials, energy and industrials tend to exhibit higher emissions intensities.

Emissions intensities for government bonds is calculated differently from other asset classes. Instead of dividing emissions by the investment value or company revenues, government bond emissions are divided by PPP-adjusted GDP<sup>7</sup>. PPP-adjusted GDP is used to calculate the carbon intensity of government bonds as it provides a standardised means of measuring and comparing the economic output of different countries.

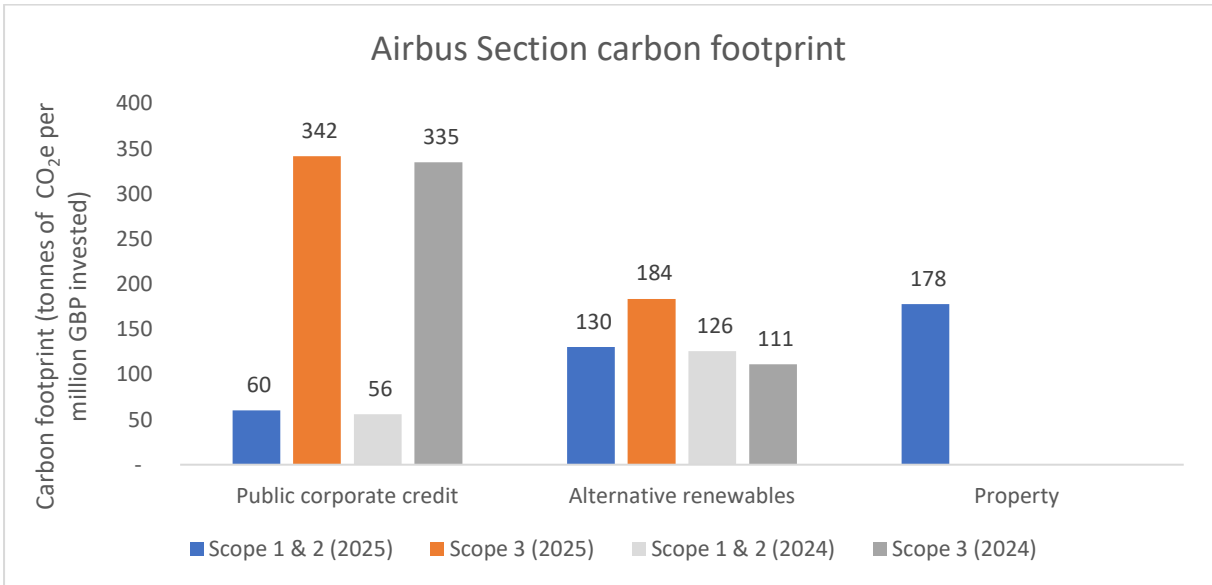
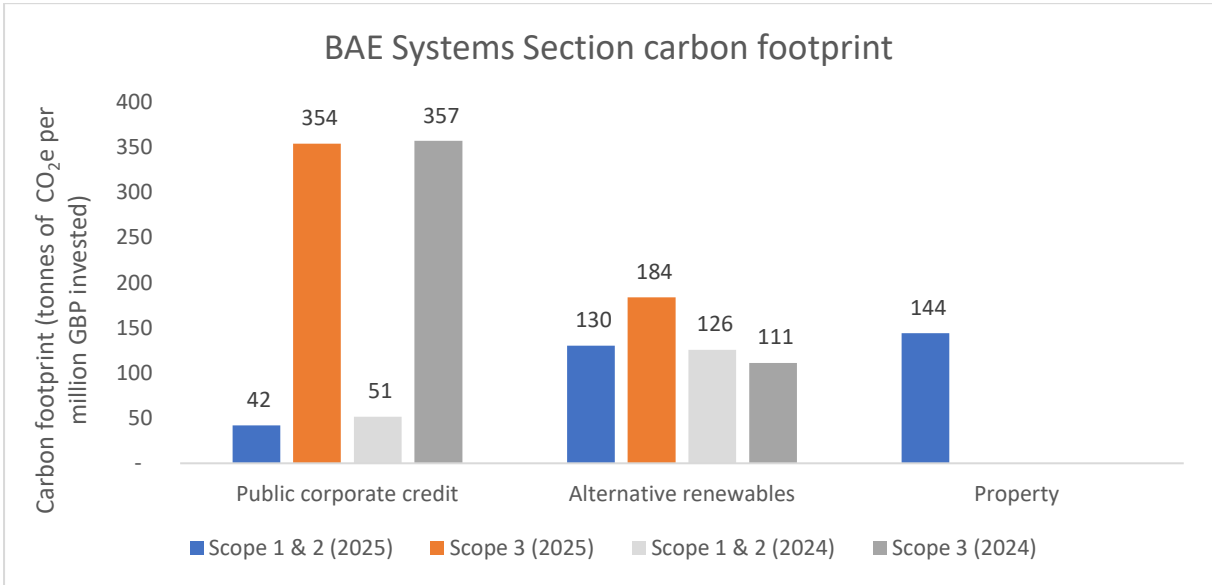
Owing to the unique characteristics of property investments, GSAM currently only reports the carbon footprint for the property portfolio (and not an additional intensity metric like WACI). GSAM, as a fiduciary manager, does not directly manage the underlying property assets; instead, investment management is outsourced to third-party managers. This structure presents unique challenges in obtaining granular, asset-level emissions data for the property portfolio. Further detail on the limitations of the property data is included in the appendices.

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<sup>7</sup> PPP-adjusted GDP refers to gross domestic product that is based on purchasing power parity ('PPP'). This adjustment is done to aid comparison between different economies.

Carbon footprint across the DB Sections' public corporate credit, renewables and property allocations

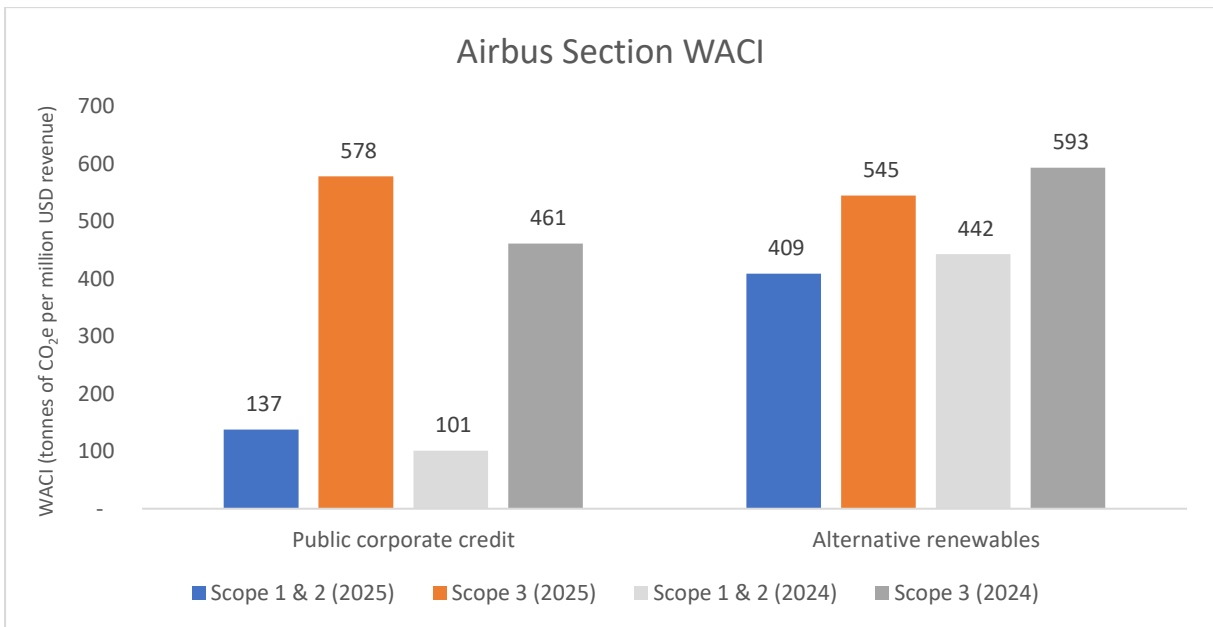
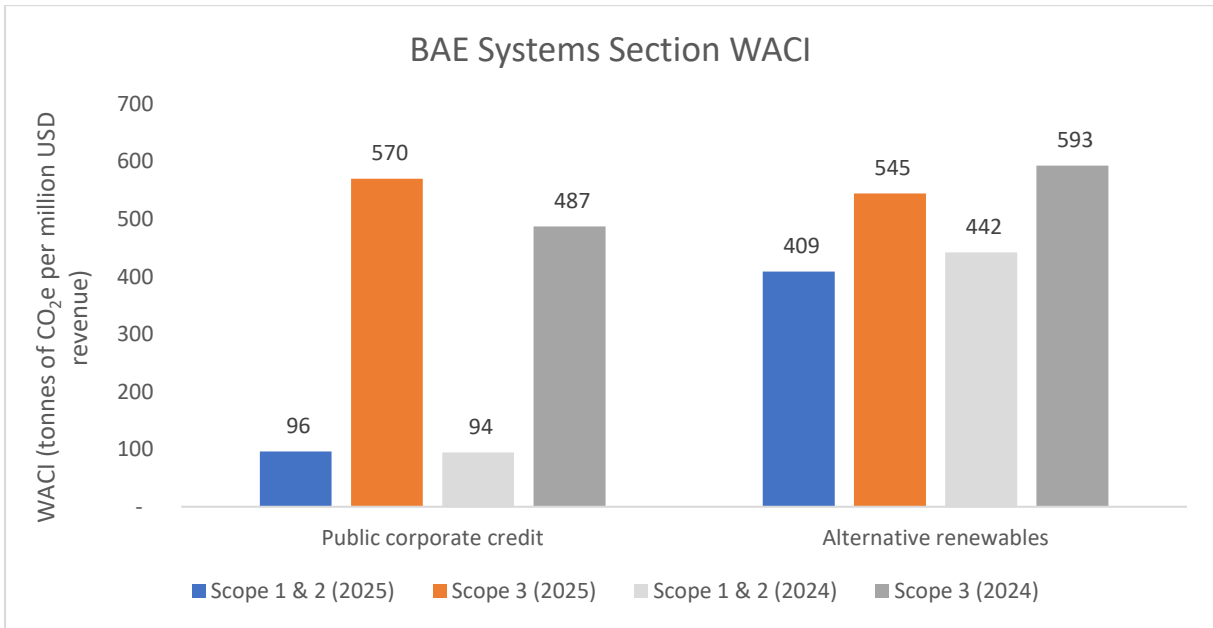
**Key takeaway:** the chart shows that the reported scope 1 and 2 carbon footprint is greatest for the property portfolio, followed by the alternative renewables portfolio. The carbon footprint for the alternative renewables portfolio has increased since last year.



Source: GSAM. Portfolio as at 31 March 2025. Note that emissions data is not available for all of the assets within each of the portfolios shown above. As a result, the emissions data that was obtained has been scaled up to provide an indication of what total emissions intensities for these asset classes would be if there were no data gaps.

Weighted average carbon intensity ('WACI') across the DB Sections' public corporate credit and renewables allocations

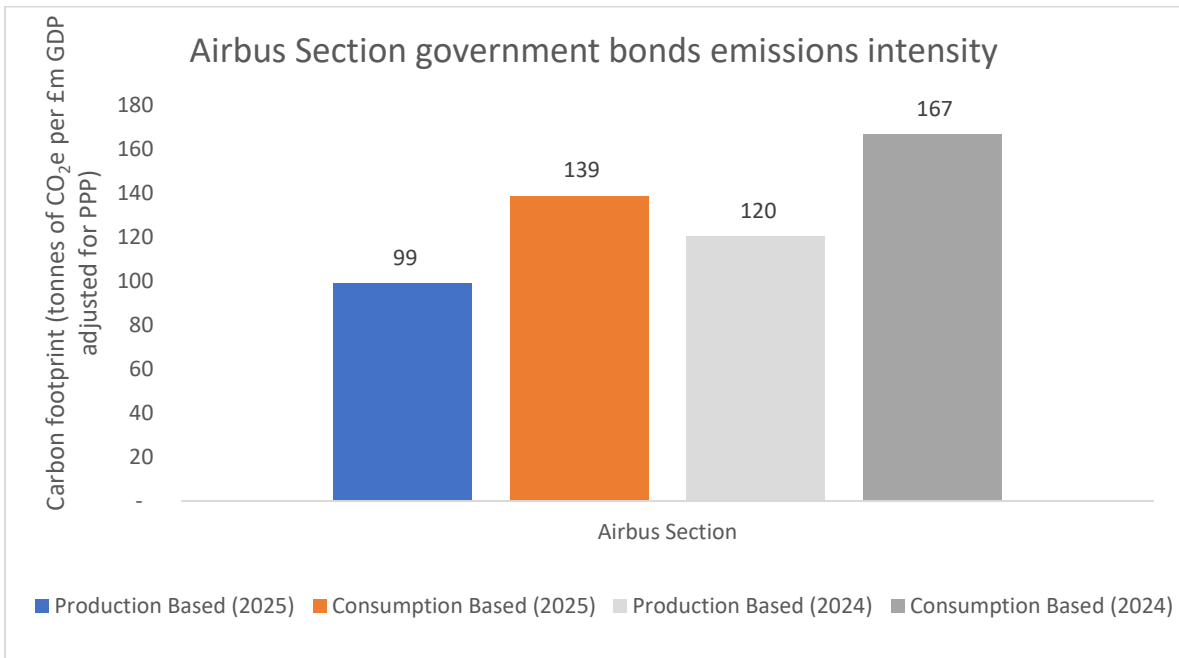
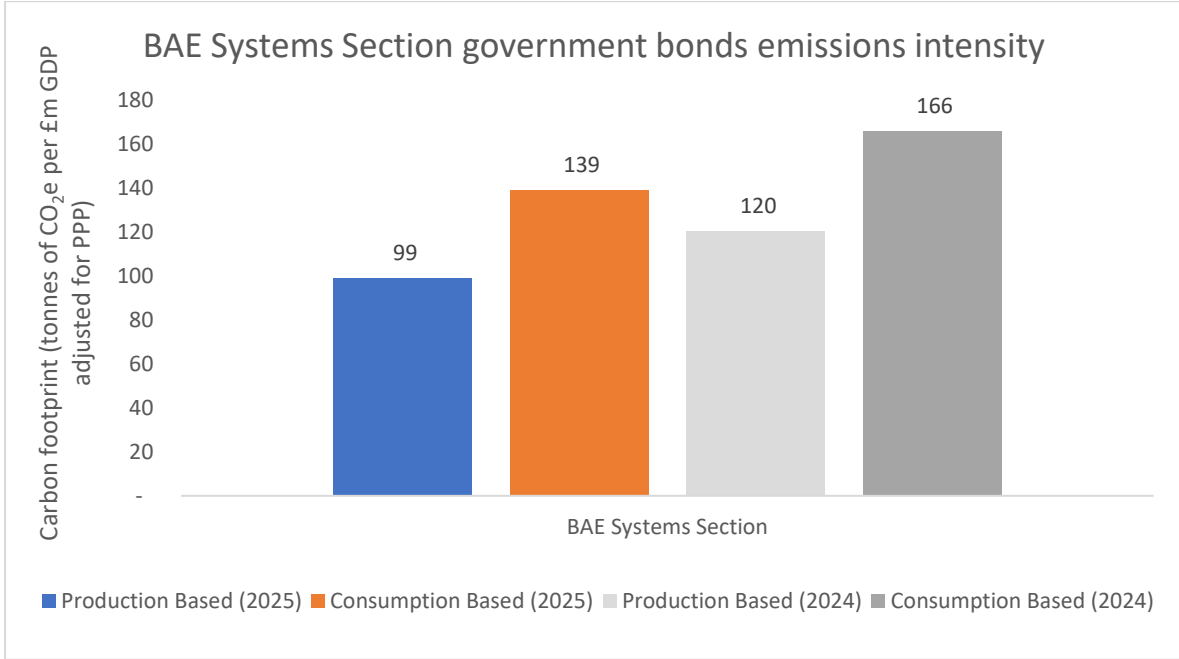
**Key takeaway:** per million dollars of revenue earned by the underlying companies, the alternative renewables assets have the highest scope 1 and 2 emissions intensity. This is because they are modelled as investments in companies that are involved in renewable supply chains. These companies – being utilities companies that use a mixture of lower-carbon and more-carbon-intensive energy sources – generally have high emissions intensities.



Source: GSAM. Portfolio as at 31 March 2025. Note that emissions data is not available for all of the assets within each of the portfolios shown above. As a result, the emissions data that was obtained has been scaled up to provide an indication of what total emissions intensities for these asset classes would be if there were no data gaps.

Emissions intensity for the DB Sections' government bond allocations

**Key takeaway:** the consumption-based emissions intensity of the DB Sections' government bond allocations is the highest of the two emissions categories. This is reflective of the fact that the UK is a net importer of goods, especially manufactured products. Many of these goods are produced in countries with higher carbon intensities than the UK.



Source: GSAM. Portfolio as at 31 March 2025. For government bonds, production-based emissions are defined as scope 1 emissions (excluding land, land-use change and forestry). Consumption-based emissions are defined as scope 1 emissions (excluding land, land-use change and forestry), scope 2 and scope 3 emissions less exported emissions. Note that emissions data is not available for all of the assets within each of the portfolios shown above. As a result, the emissions data that was obtained has been scaled up to provide an indication of what total emissions intensities for these asset classes would be if there were no data gaps.

### 3. PCAF Data Quality Score

Over the year, the Trustee reviewed and updated its third metric. As outlined in the introduction to this section, the Trustee now monitors the PCAF data quality score, which assesses the reliability of the emissions data for each fund. This scoring system ranges from one to five, with one representing the highest-quality data (independently verified emissions data) and five indicating the lowest quality (estimated emissions data derived from industry peers). Scores between one and four reflect the use of line-by-line data, whilst a score of five reflects the use of generic data, or proxies. At present, MSCI does not distinguish between a score of one and two. Therefore, the highest score currently achievable is a score of two.

Below are the results across the in-scope asset classes as at 31 March 2025. Please note that a PCAF Data Quality Score is only available from MSCI where line-by-line data is available for the fund in question. For alternative renewables, GSAM has allocated a PCAF data quality score of five due to the use of an asset class proxy for these assets (using broadly comparable publicly listed companies). Property has also been allocated a score of five due to the limitations of the data received from third-party managers (including different methodologies for calculating emissions, and the use of industry estimations to supplement data from managers). 'No score' in the tables below refers to where emissions data is available for certain assets, but a PCAF data quality score is not.

**Key takeaway:** The tables that follow show that for both the BAE Systems and Airbus Sections, the data quality of the Scheme's public corporate credit is generally much better than for sovereign credit, property and renewables. For property and renewables, the data quality score is five, indicating that emissions are characterised by emissions data derived using estimates.

#### BAE Systems Section data quality scores<sup>1</sup>

Asset Class	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	No Score
Public corporate credit (scope 1 & 2)	-	84%	-	7%	-	9%
Public corporate credit (scope 3)	-	71%	-	20%	-	9%
Sovereign credit	-	-	-	100%	-	-
Property	-	-	-	-	100%	-
Alternatives renewables	-	-	-	-	100%	-

Source: GSAM, as at 31 March 2025. Percentages may not sum to 100% due to rounding of the figures in the table.

Airbus Section data quality scores<sup>1</sup>

Asset Class	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	No Score
Public corporate credit (scope 1 & 2)	-	83%	-	8%	-	10%
Public corporate credit (scope 3)	-	79%	-	11%	-	10%
Sovereign credit	-	-	-	100%	-	-
Property	-	-	-	-	100%	-
Alternatives renewables	-	-	-	-	100%	-

Source: GSAM, as at 31 March 2025. Percentages may not sum to 100% due to rounding of the figures in the table.

#### 4. Portfolio-alignment metric

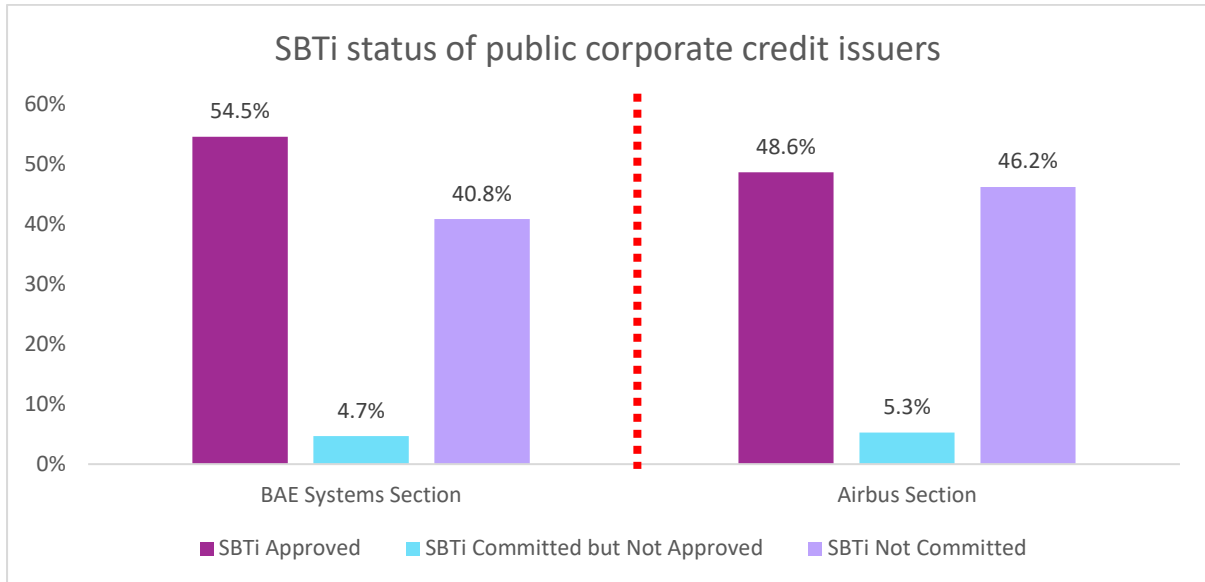
The Trustee has adopted the Science Based Targets initiative ('SBTi') metric as its portfolio-alignment metric. This captures what percentage of the Sections' public corporate credit assets is issued by companies which have set a decarbonisation target using a science-based methodology.<sup>8</sup> As this metric currently only applies to publicly listed companies, it is only relevant to the Scheme's public corporate credit holdings.

The Trustee acknowledges that SBTi metrics are reliant upon voluntary targets set by corporations. In order for these to be achieved in a way that enables companies to remain profitable, the policy environment will likely have to change to better support the transition to a low-carbon economy. As such, there is a risk that without policy change, the metric will become redundant as voluntary action can only go so far. The Trustee will continue to evaluate the usefulness of this metric ahead of the next report as a result.

#### Science Based Targets initiative alignment metric for the BAE Systems and Airbus Sections

<sup>8</sup> The target can be aimed at one or all of: the short term, long term or net zero. Each company is scored with a binary 'yes' or 'no' assessment on the following target categorisations: 'SBTi Approved 1.5°C', 'SBTi Approved Well Below 2°C' or 'SBTi Approved 2°C'. Each of the categorisations denotes the implied global temperature increases that coincide with the decarbonisation target. Regarding scope 3 emissions, if a company's relevant scope 3 emissions are 40% or more of total scope 1, 2, and 3 emissions, these need to be included in the company's near-term science-based targets. Whilst the Trustee is aware that the 'SBTi Approved 2°C' categorisation will be gradually phased out in line with the initiative's raised ambition to 1.5°C, the Trustee will continue to report under the 'SBTi Approved 2°C' categorisation to capture companies currently on a 2°C path until they increase their target ambition to 1.5°C in the next few years.

**Key takeaways:** the proportion of assets issued by entities with an SBTi target has increased since the 2024 report. At the end of March 2025, 55% of the BAE Systems Section’s public corporate credit assets (which total c.£3.9bn) had an approved SBTi target (versus 43% in 2024). It is slightly lower for the Airbus Section’s public corporate credit holdings (c.£301m), at 49% (versus 36% in 2023).



Source: GSAM, as at 31<sup>st</sup> March 2025. Percentages reflect the proportion of the net asset value of the public credit portfolios.

**TARGETS**

The Trustee has chosen one statutory target for the Scheme’s DB Sections, which acts as a stepping-stone for the Scheme’s existing 2050 net-zero objective (which is outlined on later in this section). Using advice from its consultants, the Trustee has set the following target:

**BAESPS 2030 Target**

Aim to reduce the scope 1 and 2 carbon footprint of public corporate credit by 50% by 2030, compared to the Scheme’s 2021 baseline.

Note that this target applies to the DB Sections (covering all final-salary benefits) and excludes the Scheme’s small AVC holdings. The target does not currently cover scope 3 emissions due to the limitations associated with scope 3 emissions data.

The Trustee believes in the importance of the global transition to a low-carbon economy and that the associated transition risks – along with the physical risks from climate change – could present risks to investments. This has been reflected to date in the Trustee’s ambition to achieve net-zero portfolio

emissions by 2050, which is aligned with the most ambitious goals of the Paris Agreement – to limit average global temperature increases to 1.5°C above pre-industrial levels.<sup>9</sup>

This 2030 target and the 2050 net-zero target were set on the assumption that the low-carbon transition would occur at a reasonable pace, and that limiting temperature rises to 1.5°C would remain achievable. Midway through the decade, the latest scientific research shows that achieving these goals is unlikely, due to slower-than-expected progress on the transition to date.

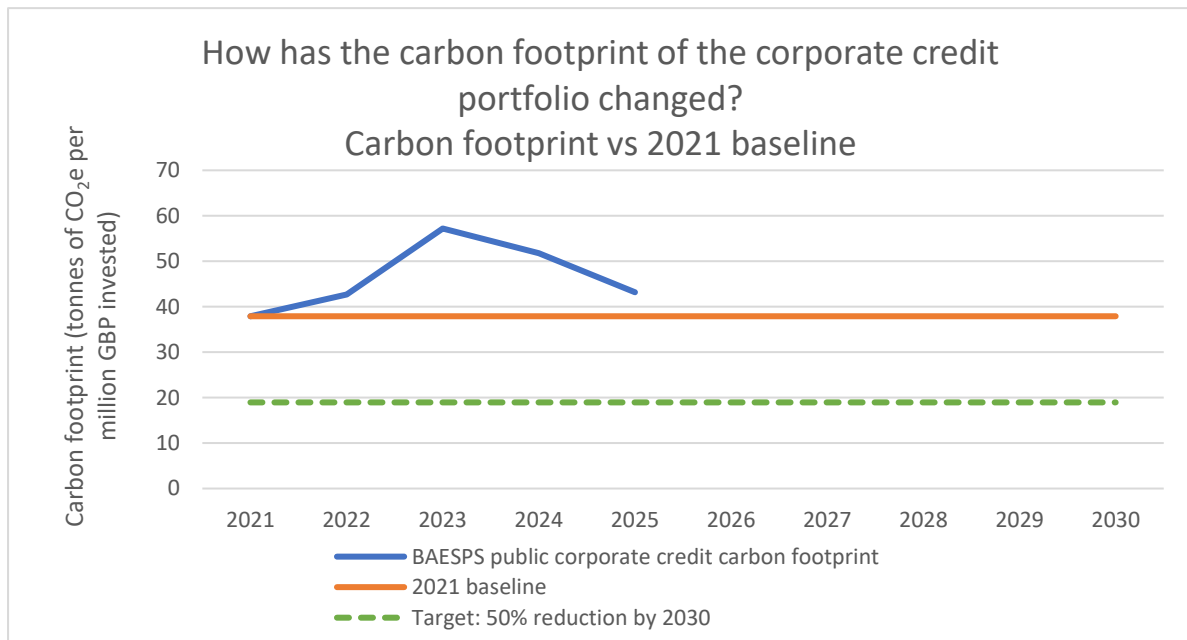
Therefore, whilst the Trustee remains supportive of the transition to net zero, believing it to be in the best long-term interests of the Scheme’s members, it recognises the challenges these targets face. The Trustee must consider these targets in the context of its wider fiduciary duty; as a result, they may need to be recalibrated in the near term. The Trustee plans to work with its investment adviser to re-consider these targets before the completion of its 2026 TCFD report.

**Progress against the Trustee’s 2030 decarbonisation target**

The chart that follows shows the carbon footprint of the DB Sections’ public corporate credit holdings relative to the 2021 baseline as at 31 March 2025. A detailed definition of ‘carbon footprint’ can be found on page 22.

**Carbon footprint of the DB Sections’ public corporate credit allocations relative to the 2021 baseline**

**Key takeaway:** the DB Sections’ public corporate credit carbon footprint has fallen over the scheme year but remains slightly above the 2021 baseline.



Source: Redington, drawing on selected data provided by GSAM. Portfolio as at 31 March 2025. Information on carbon data coverage for the different asset classes shown can be found in the appendices. The baseline for 2021 was calculated in 2022; the modelling approach

<sup>9</sup> Whilst global average temperatures for the year in 2024 exceeded the 1.5°C level for the first time, temperatures would need to exceed 1.5°C consistently over a multi-decade period for the Paris Agreement to be breached.

used emissions data available as at 31 March 2022 (rather than as at 31 March 2021), but scaled to the Scheme's holdings as at 31 March 2021. The Trustee is satisfied that this still provides a reasonable method for estimating the Scheme's 2021 baseline. Note that emissions data is not available for all of the assets shown above. As a result, the emissions data that was obtained has been scaled up to provide an indication of what total emissions intensities for these asset classes would be if there were no data gaps.

As shown in the chart, the total carbon footprint of the public corporate credit portfolio has fallen between 31 March 2024 and 31 March 2025. This was driven predominantly by portfolio companies having reduced their emissions over the year. The largest portion of the carbon footprint reduction comes from companies in high-emitting sectors, such as energy and building materials. Secondary factors driving the lower carbon footprint were portfolio turnover (more carbon-intensive positions were replaced with less carbon-intensive ones), and data – specifically, the inclusion of new data from previously uncovered companies.

Whilst the carbon footprint has fallen over the last year, it remains slightly above the Scheme's baseline; this continues to be an important area of focus for the Trustee. As mentioned previously in the report, the Trustee has adopted additional monitoring KPIs this year to support the Scheme's decarbonisation targets and wider climate ambitions. Engagement with portfolio companies is a key tool used to encourage progress towards this target. To this end, the Trustee continues to work with GSAM to ensure it continues to engage with the top emitters in the Scheme's public corporate credit portfolio.

The Trustee acknowledges that this figure can move up and down each year, due to factors such as portfolio changes as well as factors outside of the Trustee's control, such as market movements. Progress towards the target, therefore, is not necessarily expected to be linear. As mentioned previously, given the global transition is not on track and emissions continue to rise, continuing to progress against such targets is expected to be challenging (whilst being consistent with the Trustee's wider fiduciary duties to members) unless there is greater support from global policymakers.

### **Long-term target: aiming to achieve net zero by 2050**

The Trustee issued its net zero statement in October 2021, aiming for the portfolios of the DB Sections to have net-zero greenhouse gas emissions by 2050. Underpinning the broad aspiration, there is an equally broad set of actions, from manager selection and monitoring to active stewardship, scheme climate analysis and transparent reporting, and broad industry collaboration (for example the Institutional Investors Group on Climate Change).

Direct company engagements through GSAM seek to prioritise companies that account for the largest contributions to financed emissions and companies for which climate-related risk is a material consideration. Direct manager engagements should raise awareness that managing climate risk is increasingly associated with managing investment risk and should be part of any institutional investor's toolkit. The Trustee is also committed to ensuring that it keeps up to date with the latest developments in climate change risks and opportunities and will seek to use this knowledge to make strategic decisions that will help manage the Scheme's risk.

As with the 2030 target, the Trustee intends to assess the appropriateness of this target within the next year.

## Concluding remarks

This report outlines the work that has been done to monitor and manage the Scheme's exposure to climate-related risks and opportunities. Notable developments in this year's report have included the Scheme's updated non-emissions-based metric (now data quality) and the inclusion of emissions-based metrics for additional assets. This has included further renewables assets as well as a portion of the property portfolio for the first time.

The Trustee continues to see engagement as vital to achieving these targets. To this end, the Trustee continues to engage with companies, via its investment manager GSAM, to ensure that they are taking the necessary steps to decarbonise and improve their climate risk profile. This is supported by the climate-related KPIs that GSAM reports against. Whilst the carbon intensity of the public corporate credit has moved in the right direction against the Scheme's climate target, this report has highlighted the inherent challenges that such targets face in the context of a world that is not decarbonising at the necessary pace.

A degree of comfort is taken from the steps made to date by the DB Sections' sponsoring employers to develop strategies to reduce their climate risk. These actions are expected to increase the resilience of the DB Sections' funding strategies against the risks that are expected to be brought on by climate change. The Trustee will continue to perform climate analysis as appropriate and monitor the approaches of the sponsoring employers to ensure that they continue to be satisfied that sufficient efforts are being made to reduce their climate risk.

The Trustee continues to keep abreast of developments in industry approaches to monitoring and managing climate-related risks and opportunities. The Trustee looks forward to developments, and will continue to remain informed on such debates, altering its approach where relevant.

## What's next?

Climate change is integrated into the ongoing management of the Scheme, with the Trustee formally monitoring developments on a quarterly basis and providing annual climate disclosure reporting. As part of this, the Trustee reviews the Scheme's investment and funding strategy to ensure it remains appropriate following any significant developments.

The Trustee continues to increase its knowledge through experience and training and has identified areas to consider in more detail in the coming months. The Trustee's stewardship policy has helped to focus engagement efforts on behalf of the Scheme, and the Trustee will continue to review progress and hold the Scheme's investment manager to account. To support this, at the time of writing, the Trustee is seeking to incorporate additional asset classes into the reporting they receive on GSAM's stewardship approach. As mentioned, the Scheme's climate targets will also be reviewed in the coming year.

Acknowledging that climate change is one of a number of important responsible investment themes, the Trustee will continue to take a holistic approach to responsible investment, considering climate change alongside factors such as human rights, business ethics and nature.

## APPENDICES

### Scenario analysis as a tool

The Trustee recognises scenario analysis as an important tool for assessing climate-related risks and opportunities. It aims to capture diverse, interacting factors with varying probabilities of occurring and varying impacts should they occur. It can be used to estimate the impact of these factors on the Scheme's assets and liabilities. This approach is helpful for understanding the uncertainties of transitioning to a low-carbon economy, or the consequences of not doing so.

Climate scenarios explore the impact of future pathways on asset values. These pathways are shaped by key drivers like technology adoption (e.g. renewable energy), changing consumer demand (e.g. for electric vehicles) and policy (e.g. carbon pricing). These drivers create varying levels of climate risk, usually as a combination of transition risks and physical risks. Transition risks include policy and market shifts, and physical risks include extreme weather, sea level rise, and resource stress.

While helpful, scenario analysis also has important limitations. These usually stem from the assumptions used (for example, about the future energy mix, the rate of adoption of electric vehicles, the availability of carbon capture), the interdependencies (for example, coal's demise, wind/solar uptake) or their interaction with financial and other macro-economic variables.

### Scope of the DB asset scenario analysis

*Disclaimer: the data outputs in this section of the report have been created by BAE Systems Pension Funds Trustee Limited ('BAE'), drawing on selected data provided by Planetrics, a McKinsey & Company solution (which does not include investment advice). This report represents BAE Systems Pension Scheme's own selection of applicable scenarios and/or its own portfolio data. BAE Systems Pension Scheme is solely responsible for, and this report represents, such scenario selection, all assumptions underlying such selection, and all resulting findings, conclusions and decisions. McKinsey & Company is not an investment adviser and has not provided any investment advice.*

The regulations for UK pension schemes state that scenario analysis needs to be undertaken at least every three years. Trustees should review annually whether circumstances have changed to warrant refreshing the analysis before the end of the three-year period. In the Trustee's opinion (following input from its advisers), there have been no such changes in circumstances since it was last performed in 2023. As such, the scenario analysis for the DB Sections' assets and liabilities included in this report uses an analysis date of 31 March 2023. It is due to be refreshed for the 2026 report.

## BAE Systems DB Section's holdings by sub-portfolio and coverage in the Planetrics model (31 March 2023)

Sub-portfolio	Value of holdings		Coverage of emissions analysis	
	£m	%	£m	% of portfolio value covered within the model unless otherwise noted
Listed equity	824	4%	821	100%
Private equity	2,139	10%	2,136	100%
Public corporate credit	2,362	12%	1,764	75%
Private credit	4,307	21%	691	30%
Real estate	1,803	9%	1,803	100%
Matching plus portfolio & alternatives (ex renewables)	3,586	17%	3,586	100%
Alternatives (renewables)	489	2%	489	100%
Matching plus (renewables - equity)	1,080	5%	1,080	Modelled with a bespoke methodology
Matching plus (renewables - debt)	304	1%	304	100%
Matching plus and debt (ex renewables)	397	2%	397	100%
Government bonds	3,242	16%	3,207	99%
<b>Total portfolio</b>	<b>20,534</b>	<b>100%</b>	<b>16,280</b>	<b>79%</b>

Source: BAPFIM, drawing on selected data provided by Planetrics, 2023. Please note that the data provided is as at 31 March 2023 as the asset-side scenario analysis was not refreshed for this report.

Values may not sum up due to rounding. Values do not include cash.

ISINs are International Securities Identification Numbers that uniquely identify a specific security. Note, ISIN coverage figures relate to portfolio coverage after proxies have been applied.

Matching plus and alternative growth excluding renewables were modelled as private equity using sector-region proxies, with real estate and infrastructure investments within the sub-portfolio assigned to the 'finance' sector.

## Airbus DB Section's holdings by sub-portfolio and coverage in the Planetrics model (31 March 2023)

Sub-portfolio	Value of holdings (31 March 2023)		Coverage of emissions analysis	
	£m	%	£m	% of portfolio value covered within the model unless otherwise noted
Listed equity	207	7%	207	99%
Private equity	297	11%	297	100%
Corporate bonds	243	9%	186	83%
Public corporate credit	449	16%	79	51%
Real estate	244	9%	244	100%
Matching plus portfolio & alternatives (ex renewables)	497	18%	497	100%
Alternatives (renewables)	65	2%	65	100%
Matching plus (renewables - equity)	167	6%	167	Modelled with a bespoke methodology
Matching plus (renewables - debt)	47	2%	47	100%
Matching plus and debt (ex renewables)	61	2%	61	100%
Government bonds	523	19%	517	98%
<b>Total portfolio</b>	<b>2,799</b>	<b>100%</b>	<b>2,366</b>	<b>85%</b>

Source: BAPFIM, drawing on selected data provided by Planetrics, 2023. Please note that the data provided is as at 31 March 2023 as the asset-side scenario analysis was not refreshed for this report.

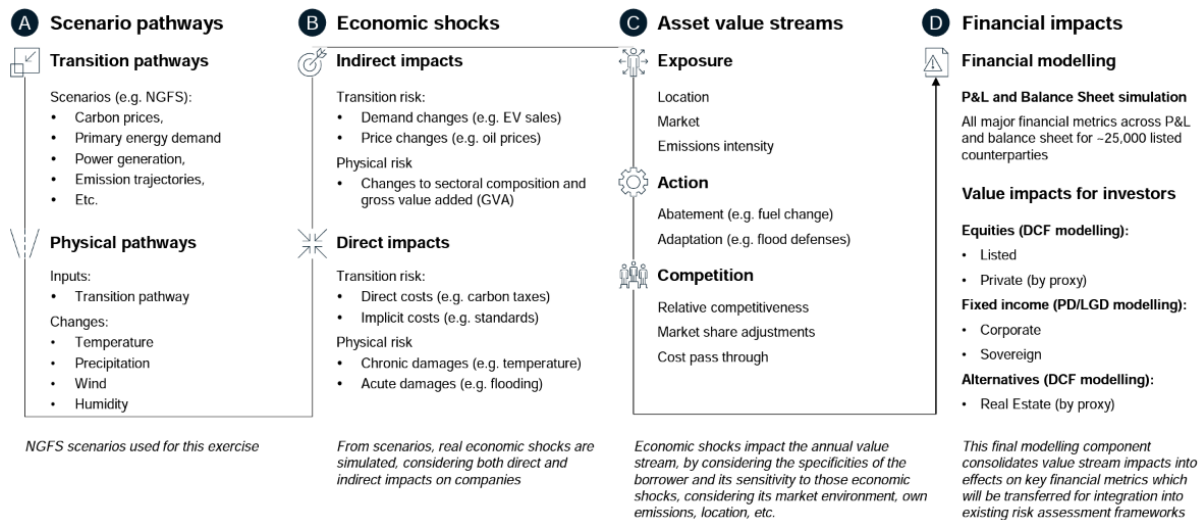
Values may not sum up due to rounding. Values do not include cash.

ISINs are International Securities Identification Numbers that uniquely identify a specific security. Note, ISIN coverage figures relate to portfolio coverage after proxies have been applied.

Matching plus and alternative growth excluding renewables were modelled as private equity using sector-region proxies, with real estate and infrastructure investments within the sub-portfolio assigned to the 'finance' sector.

## Modelling methodology (DB asset scenario analysis)

For the majority of the sub-portfolios, the scenario analysis was completed using Planetrics’ four-step modelling framework to quantify climate impacts.



Source: Planetrics.

The framework disaggregates climate impact by channels related to either transition or physical risk. The below transition and physical risk channels are combined to create a ‘market impact’, that represents the changes in profit from companies’ ability to pass through costs to consumers and take market share from more emissions-intensive competitors.

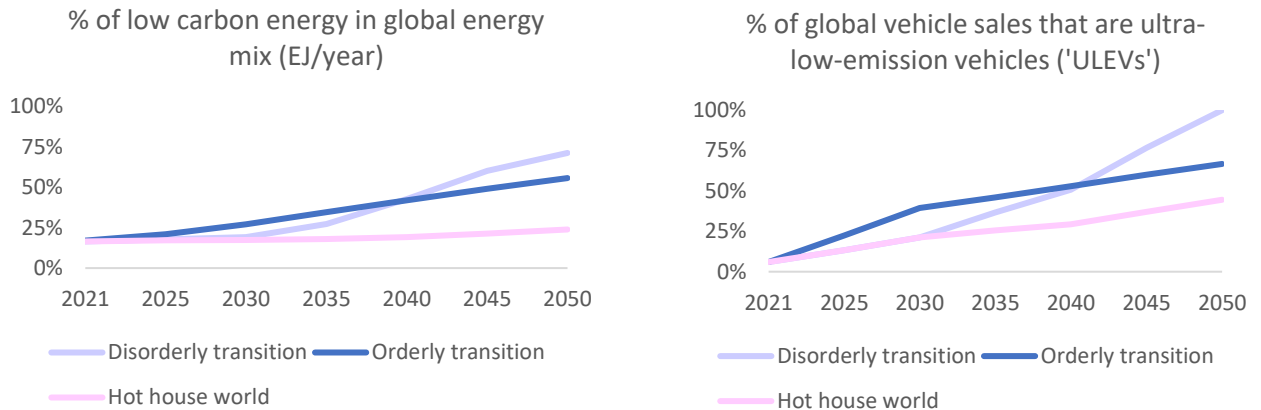
### Transition Risk Channels

- Changes in demand
  - Demand destruction – Reduced demand for fossil fuels pushes down prices for producers and results in lower profit margins and stranded assets.
  - Demand creation – Increasing demand for low-carbon products and materials (such as lithium) pushes up profits for companies involved.
- Changes in costs
  - Direct carbon cost – Increase in cost from emissions-intensive companies which face a cost burden from carbon pricing (for the emissions not abated).
  - Abatement – Decrease in cost from emissions-intensive companies which can reduce emissions through abatement.

### Physical Risk Channels

- Changes in demand
  - Labour productivity – Decrease in revenue from chronic physical impacts due to changes in labour productivity caused by heat stress.
  - Land productivity and availability – Decrease in revenue from chronic physical impacts due to land inundation and changes in agricultural productivity caused by higher precipitation and temperature.
- Changes in costs
  - Extreme weather damages – Increase in insurance costs due to increased likelihood of extreme weather events, including coastal flooding, river flooding, tropical cyclones, European windstorms, and wildfires.
  - Adaption – changes to costs and revenues due to actions to reduce the physical impacts of climate change (such as coastal flood defences).

Selected scenario variables for the hot house world and orderly and disorderly transition scenarios



The two charts above demonstrate two of the scenario variables used by Planetrics and how they vary in the three different climate scenarios over time. The first chart shows the percentage of low-carbon energy in the global energy pool in EJ, where EJ is an exajoule, a measure of energy equal to  $10^{18}$  joules. In 2024, low-carbon energy sources contributed c.17% of the total energy mix.<sup>1</sup> The second chart shows the percentage of global vehicle sales made up of ultra-low-emission vehicles. In 2024, this percentage was c.20%.<sup>2</sup>

Modelling methodology by asset class (DB asset scenario analysis)

Each asset class has a specific methodology to translate asset-level changes in value streams into changes in the values of investments. Where data is deemed insufficient by Planetrics, meaning they are unable to model the actual assets in a sub-portfolio, proxy companies are selected. This is detailed below:

**Listed equities:** value impairment for an equity under each climate scenario is defined as the percentage change in the net present value of a company’s earnings relative to a baseline pathway<sup>3</sup>.

**Public corporate credit:** impacts are estimated by translating changes in equity valuations to changes in fixed-income instrument default risk.

**Sovereign bonds:** sovereign bond impacts reflect the change in sovereign default risk arising from changes in energy consumption, energy costs, and the physical risks of climate change.

**Private credit:** this portfolio consists of bonds that are issued by local authorities, infrastructure projects, housing associations and education establishments. The climate risks associated with these issuers are highly varied and therefore have not been modelled in this analysis.

<sup>1</sup> <https://ourworldindata.org/energy-mix>

<sup>2</sup> The International Council on Clean Transportation, *The Global Automaker Rating 2024/2025*.

<sup>3</sup> In this context, a ‘baseline pathway’ is an assumed pathway for company dividends where these are unaffected by climate scenarios. Climate risks in each scenario are quantified relative to a ‘baseline’ pathway. In this baseline, no additional climate policies are introduced beyond those that are currently in place, and there is no further change in climate beyond the level of warming that has already occurred. This effectively assumes that markets today have not priced in transition or physical risks from climate change. [when will this become an unsustainable assumption?]

**Real estate:** impairments due to transition and physical risk are estimated by country and property type.

**Private equity (proxied):** analysis is done at the sector/region level and the impacts are estimated using results from Planetrics' listed equity coverage.

**Renewables – alternatives (proxied):** the alternatives renewables portfolio consists of unlisted equity exposure to companies that operate within the renewables asset value chain, primarily renewable energy development and generation. The Scheme's exposure to these assets has been proxied for the purposes of the scenario analysis using listed utility companies.

**Renewables – matching plus segment (bespoke methodology):**

The matching plus renewables portfolio consists of four types of renewables assets: onshore wind, offshore wind, solar, and biomass/biogas.

The bespoke methodology applies the transition and physical risks to one archetypal project of each type of renewable energy. The model reflects the fact that a significant proportion of the asset revenues are contractually fixed in real terms, while most of the exposure of each project to changes in electricity prices occurs towards the end of the project lifetime.

Based on the project characteristics and the modelled electricity prices in each climate scenario, the model calculates the changes in costs and revenues for each technology in a baseline scenario (with no additional physical or transition risk) and in each of the Network of Central Banks and Supervisors for Greening the Financial System ('NGFS') scenarios. Then, the model calculates the net present value of the underlying profits in each scenario for each type of asset, using asset-specific discount rates. The final 'value impact' is calculated as the project's value in each scenario relative to its baseline value.

### DB asset climate scenario analysis: assumptions and limitations

Climate risk analysis is still in its infancy, and the investment industry is still developing its approach to assessing the potential downside or upside investment risks stemming from such complex phenomena. As with all models, the analytical approach relies on a number of assumptions and constraints, which are important to note. Some of these are specific to the model, and some are well-known industry issues that are expected to improve in the coming years. The most important issues are summarised below:

- **Backward-looking:** while modelling of companies' value impacts is forward-looking, it is based on the most recent, backward-looking carbon emissions and financial information. The modelling has not accounted for companies' decarbonisation and energy-reduction strategies. The Planetrics model does not capture demand growth for technologies that have not reached scale or achieved widespread deployment.
- **Data coverage:** no carbon emissions data is available across real estate or private asset classes for the DB Sections. The Planetrics model proxies this with sector-average data from listed company peers. The situation is improving over time as company disclosures and ESG datasets improve.
- **Inflation impacts:** the value-impact model is based on discounted cash flows; therefore, discount rates are an important element. The results presented in this report show impacts on equities and corporate credit that do not account for changes in the base rate arising from central banks' response to the inflation and growth impacts of each scenario. For consistency,

interest rate effects on sovereign bond values have been removed in order to have a consistent discount rate across all asset classes.

Additional limitations of the analysis include:

- Limitations of the proxy analysis used. For example, for the ‘renewables – alternatives’ portfolio, BAPFIM chose to model this portfolio as a portfolio of listed utility companies; the actual portfolio may not necessarily behave like the utility companies in the set of proxies modelled. In particular, the ‘renewables – alternatives’ portfolio companies may not be able to grow their volume, pass costs on in the same way, or experience carbon costs to the same degree as the listed utilities used as proxies.
- The Planetrics analysis assumed that all firms operate in competitive markets, which may not be the case across all portfolios at all times.
- The analysis included default risk effects only for sovereign bonds.
- Coverage of climate risks was comprehensive but not exhaustive (for example, water stresses were not directly modelled).
- As mentioned previously, the company segmentation and emissions data was imperfect, was estimated in some cases, and may differ from one data provider to another.

## Climate scenarios

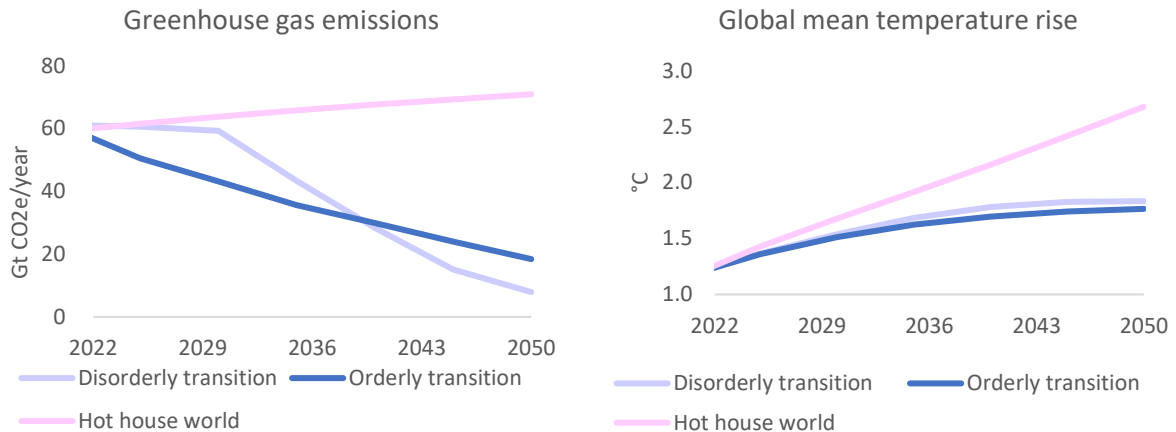
The analysis adopts the climate scenarios of the NGFS. The NGFS scenarios offer a common basis for the financial sector to assess climate risks, and are used by investors, banks, and regulators, including the Bank of England.

The analysis uses three reference scenarios from the NGFS scenario set, covering a broad spectrum of emissions and temperature trajectories until 2050. These scenarios illustrate lower and higher-risk outcomes:

- Hot house world;
- Orderly transition;
- Disorderly transition.

The ‘disorderly’ and ‘orderly’ transition scenarios reflect a large decline in emissions in the period to 2050. Global annual CO<sub>2</sub> emissions fall from around 60 GtCO<sub>2</sub> in 2021 to less than 20 GtCO<sub>2</sub> by 2050 in both scenarios. In contrast, emissions continue to grow throughout the period in the ‘hot house world’ scenario. The large emissions reduction in the disorderly and orderly scenarios is driven by large changes in the energy and transport sectors. The share of low-carbon energy increases from around 20% today to over 50% by 2050 in both scenarios. The market share of ultra-low-emission vehicles increases from around 5% of sales to more than 50% in the orderly transition scenario and close to 100% in the ‘disorderly transition’ scenario by 2050.

Selected scenario variables for the hot house world and orderly and disorderly transition scenarios



Source: NGFS, BAPFIM, drawing on selected data provided by Planetrics. This chart draws on selected data provided by Planetrics, a McKinsey & Company solution (which does not include investment advice).

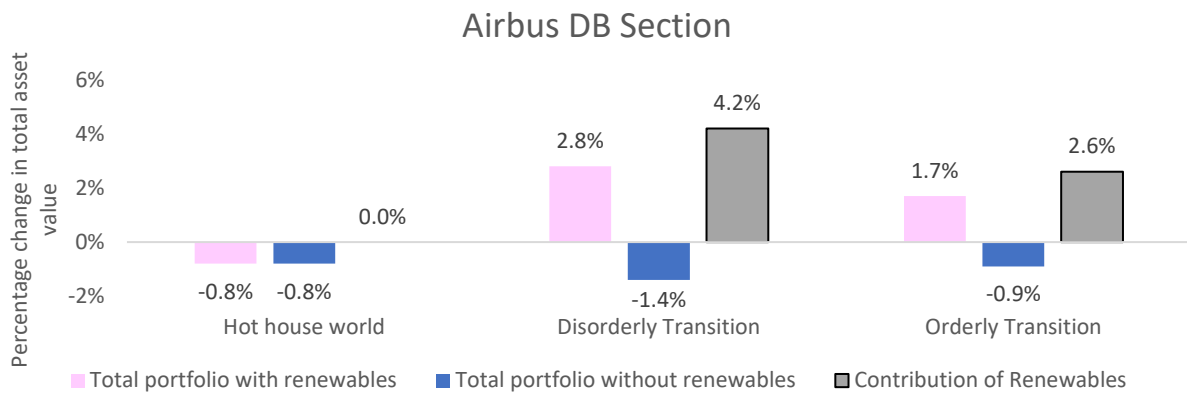
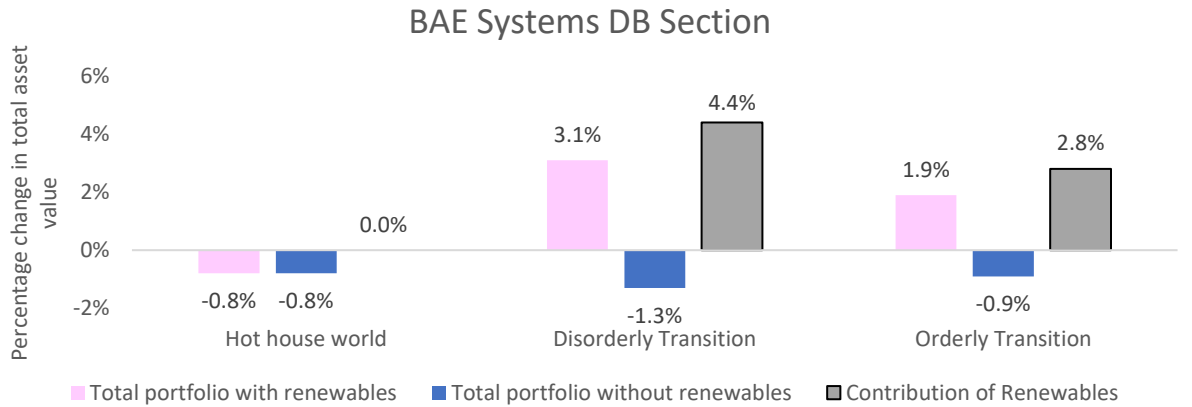
Climate risk breakdowns

The charts that follow show the impacts of different factors – both risks and opportunities – on the Scheme’s assets under the ‘disorderly transition’ scenario. Further examples of the different factors shown are:

- **Demand destruction:** reduced demand for fossil fuels and associated products, resulting in reduced revenues for companies involved in those activities due to reduced volumes, reduced prices, and stranded (obsolete) production assets.
- **Demand creation:** increased demand for low-carbon products and associated commodities that increases revenues for companies involved in those activities.
- **Abatement:** an action taken by companies to reduce their emissions and associated carbon costs (a prime example of such costs being taxes on carbon emissions – a form of policy intervention to reduce emissions). For example, this can be done by investing in increasing the company’s energy efficiency.
- **Adaptation:** companies can take action to adapt to climate change and reduce their exposure to physical risks.

Charts showing the impact of the renewables allocations, which are shown as mitigating the climate risk in the 'orderly' and 'disorderly' transition scenarios

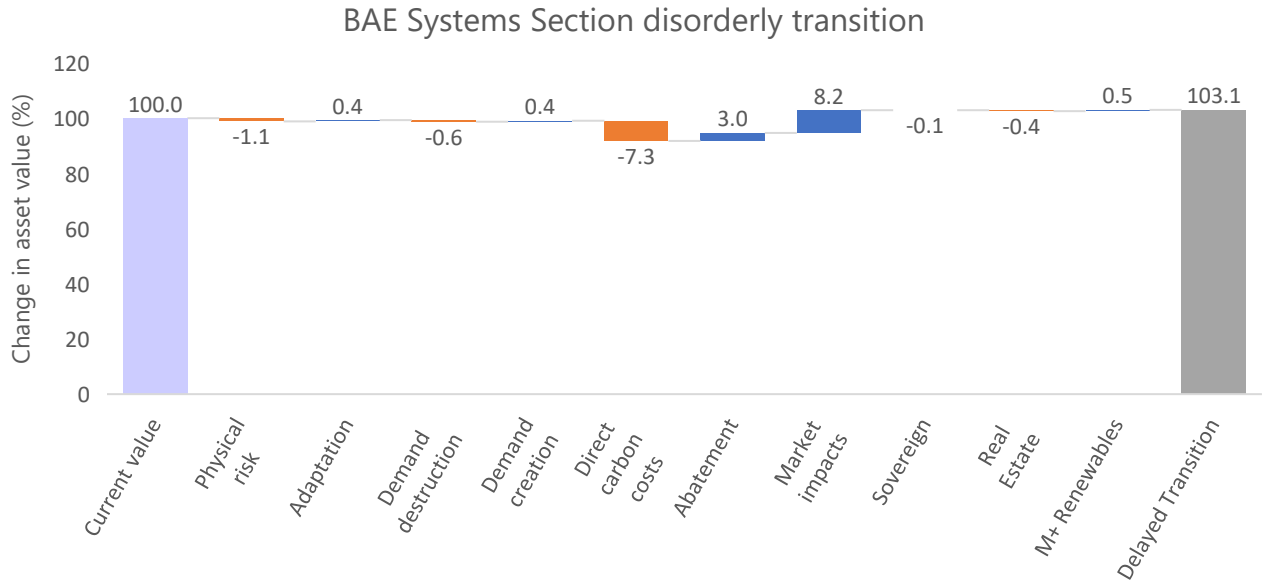
**Key takeaway:** the renewables exposure of the DB Sections is a significant mitigator of climate risk in the 'orderly' and 'disorderly' transition scenarios that have been modelled.



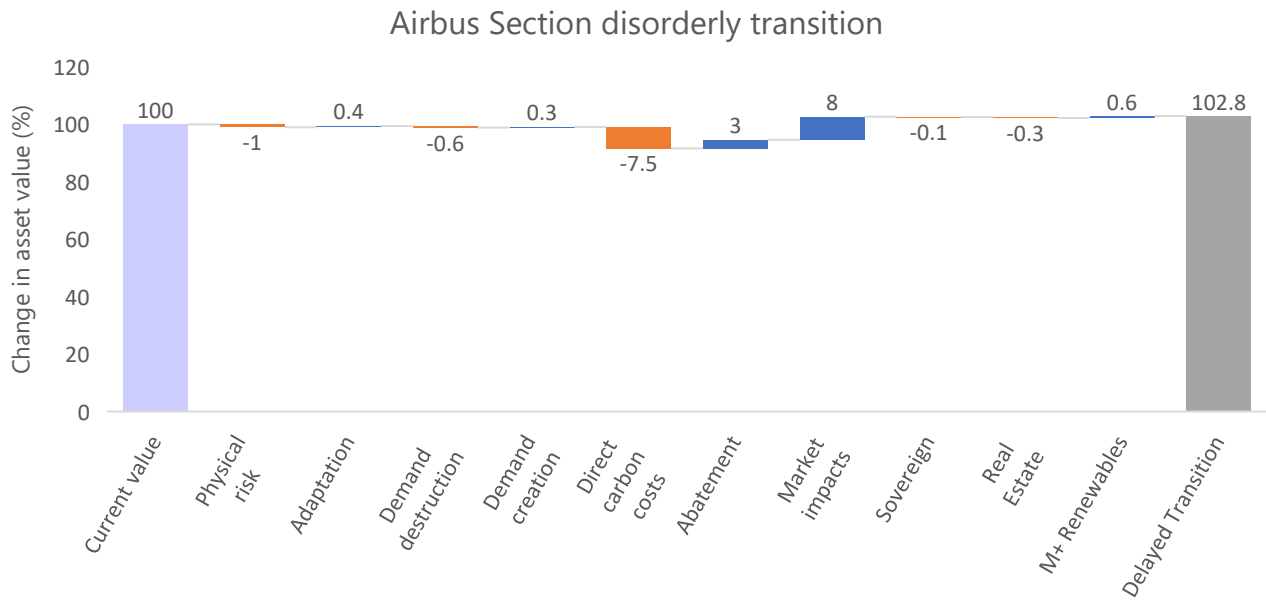
Source: BAPFIM, drawing on selected data provided by Planetrics. Portfolio as at 31 March 2023. Note that the impact shown is the total impact on the asset value in each scenario.

Charts showing a breakdown of the factors driving the change in value of the DB Sections' portfolios in the 'disorderly transition' scenario

**Key takeaway:** higher carbon costs are the main driver of climate transition risks for the DB Sections, whilst abatement and market impacts (largely driven by positive performance of the renewables assets) more than offset these.



Factors affecting the change in asset value



Factors affecting the change in asset value

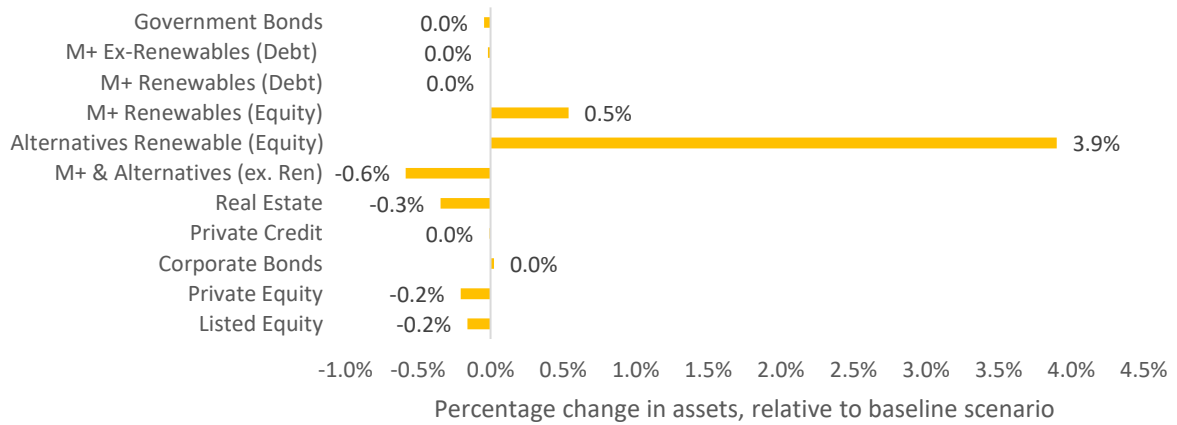
Source: BAPFIM, drawing on selected data provided by Planetrics. Portfolio as at 31 March 2023. Note that the impact shown is the total impact on the asset value in each scenario.

The charts that follow compare the BAE Systems and Airbus DB portfolios' asset class contributions to their climate risk against the baseline scenario. The charts show how different asset classes' values change in a 'disorderly' transition scenario.

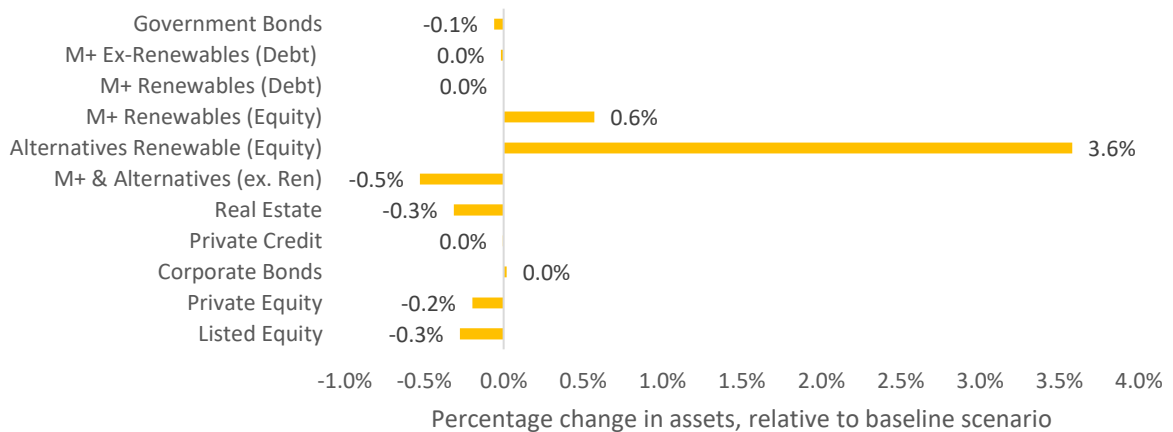
Charts showing a breakdown by asset class of the impact of a 'disorderly transition' scenario relative to the baseline scenario

**Key takeaway:** in a 'disorderly transition' scenario, relative to the baseline scenario, most of the asset value downside is derived from real estate, listed equities and non-renewable alternatives, whilst renewable alternatives provide meaningful upside.

### Disorderly Transition (BAE Systems Section)



### Disorderly Transition (Airbus Section)



Source: BAPFIM, drawing on selected data provided by Planetrics. Portfolio as at 31 March 2023. Note 'M+' refers to 'Matching Plus' assets. Note that the impact shown is the total impact on the asset value in each scenario.

## Liability climate scenario risk: assumptions and limitations in analysis for the DB Sections

For the BAE Systems Section, the Technical Provisions liability figures have been produced by Hymans Robertson using their cashflow-matching model. The future longevity assumptions and all other demographic assumptions are set in line with the 2021 Technical Provisions basis.

For the Airbus Section, the Technical Provisions liability figures have been taken from Skyval (an asset and liability information platform). The future longevity assumptions and all other demographic assumptions are set in line with the 2020 Technical Provisions basis.

For both the BAES System Section and the Airbus Section, the longevity impacts were based on the Club Vita Hot and Bothered analysis, detailed below, and the asset shocks were those provided by Planetrics, which were combined to obtain the overall funding impact. For the BAE Systems Section, Hymans Robertson applied the asset shocks using the information provided by Planetrics within their cashflow-matching model. For the Airbus Section, the asset shocks were applied by Redington.

Mortality assumptions:

- The longevity scenarios are based on Club Vita's Hot and Bothered analysis, updated to 2021. No allowance has been made for experience since 2021 (which would include COVID-19, amongst other things).
- For the Airbus Section, longevity stresses are based on the assumptions from the 2020 formal valuation, scaled by gender-weighted adjustments using S2 base tables, at age 50 for non-pensioners and 65 for pensioners.
- For the BAE Systems Section, longevity stresses are based on the assumptions from the 2021 formal valuation, scaled by gender-weighted adjustments using S3 base tables, at age 50 for non-pensioners and 65 for pensioners.
- For both Sections, this introduces approximation to the analysis and applies the longevity stresses at 31 March 2023 (rather than later, as may be the case for the delayed transition scenario). The stresses have then been applied to the Technical Provisions liability values as at 31 March 2023.
- The key simplifications in this approach are through applying stresses at a single point in time and using single weightings by the Schemes' current overall membership. The true picture will be more complex, with different items of experience emerging and affecting the Scheme's strategy over a range of different time periods.

## DB employer covenant scenario analysis – BAE Systems plc and Airbus SE

The BAE Systems and Airbus Sections of the BAE Systems Pensions Scheme are supported by employers from the BAE Systems plc group (the 'BAE Systems Group') and the Airbus SE group (the 'Airbus Group') respectively. The Trustee has received analysis from the respective DB Sections' covenant advisers in relation to both sponsoring employer groups. The covenant advisers consider the resilience of the employer covenants to climate-related risks by assessing how climate-related risks and opportunities could affect covenant longevity and employer cash flows in the context of any mitigating actions being taken by both the BAE Systems Group and Airbus Group. This helps to inform Trustee conclusions around the resilience of the Sections' funding strategies.

The covenant adviser assesses climate-related risks and opportunities in detail as part of its covenant review, reporting to the Trustee Board at least triennially. This is supplemented by covenant monitoring between valuations which is reported to the Trustee Board biannually.

For the BAE Systems Group, the covenant adviser has leveraged its covenant review (prepared in July 2024 as part of the Scheme's 2024 Valuation) and subsequent biannual covenant monitoring (most recently reported on 21 March 2025) which was based on publicly available information including the BAE Group's 2024 annual report.

For the Airbus Group, the covenant adviser has had a discussion with company management as part of the 2023 Valuation. It has also leveraged its covenant work from subsequent biannual covenant monitoring, which was based on publicly available information and the most recent disclosures from Airbus, including the Airbus Group's 2024 annual report.

The work for both the BAE Systems Group and Airbus Group is also supplemented by the covenant adviser's own internal sector specialists.

Unless stated for the BAE Systems Group, references below to short-, medium-, and long-term time horizons are consistent with those used in the BAE Systems Group's 2024 annual report, being <2 years, 3 - 10 years and >10 years, respectively.

For the Airbus Group, time horizon references are short term (up to 2028), medium term ("around 2035") and long term ("around 2050").

The time horizons for the BAE Systems Group and Airbus Group are broadly comparable to those selected by the Trustee for monitoring climate risks and opportunities being short, medium, and long term of up to 3 years, 4-10 years, and >10 years (out to 2050). Based on its own analysis as part of the recent covenant reviews, the covenant adviser is of the view that the physical risks, transition risks and transition opportunities presented by the BAE Systems Group and Airbus Group are consistent with its own analysis for the Trustee. The Trustee is therefore comfortable that the covenant adviser continues to monitor these risks, which it does at least annually with regular dialogue throughout the year, supported by detailed reviews for each triennial valuation.

The Trustee also notes that there are sponsor risk management procedures in place to identify risks and mitigate the potential impact of the risks relating to climate change, and the covenant adviser also engages with management on the suitability of the mitigation measures as part of each covenant review.

## **BAE Systems**

The covenant adviser recognises climate-related risks as important short and medium-term considerations for the BAE Systems Group, which has identified climate change as a principal risk within its annual report. However, the covenant adviser considers these risks as less material to the covenant than commercial or geopolitical factors.

The BAE Systems Group aims to cut scope 1 and 2 emissions by 4.2% annually to 2030, aligned with the Paris pathway, and reported a 6% reduction in 2024 (excluding Space and Mission Systems, a material acquisition that completed in 2024, with data to be included from 2025 onwards). While this target represents a change from its previous 2030 net-zero goal for scope 1 and 2, it remains broadly in line with peers<sup>4</sup>. The Group retains a 2050 net-zero target across its value chain, which will be a significant challenge to achieve, but it is shared with customers and competitors.

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<sup>4</sup> For the purpose of this comparison, the Group's peers are noted as: Raytheon, Lockheed Martin, Siemens, Northrop Grunman and Leonardo, consistent with the Scheme's 2024 covenant review.

In the near term, risk lies in the cost and execution of the Group’s net zero strategy, with failure potentially increasing decarbonisation costs and disrupting operations. Over the medium term, transition risks may grow due to shifting customer expectations, regulatory pressures, and technological competition. Long-term risks include physical impacts from climate change such as flooding. At the same time, the transition offers opportunities such as developing electric and hybrid propulsion, and expanding low-carbon technologies into adjacent markets, which could partly offset both physical and transition risks. Continued investment will be required to manage risk and take advantage of opportunities that may arise.

Material physical and transition climate-related risks to the BAE Group as per disclosures in the 2024 annual report.

Risk	BAE Systems Group Response
<p>Physical Risk – Extreme weather events such as flooding and/or prolonged higher temperatures could negatively affect BAE Systems Group sites, and its operations and suppliers, through higher costs (including repair costs, disruption to operations and adaptation investments) and reducing productivity.</p> <p>The Group expects the above to materialise over the short, medium and long term.</p>	<p>The Group has assessed the future physical risk of extreme weather on 140 priority sites, including financially quantifying the unmitigated damage and potential disruption losses. Risks have also been quantified for seven hazards in future periods to 2100 under three scenarios.</p> <p>The Group’s assessment also includes risk engineering reviews at site level and a quantification of current potential financial impacts. Any mitigation actions arising from the assessments are included within the business plan for each sector.</p> <p>The Group expects the financial impact of physical risks to be low.</p>
<p>Transition Risk: Regulation – The impact of tightening environmental laws and regulations in relation to carbon pricing globally.</p> <p>The Group expects regulation-related transition risks to materialise over the medium term.</p>	<p>Carbon pricing has the potential to increase operational costs via carbon taxes and levies to the business for energy and fuel use, and indirect taxes which are passed to the Group through purchased energy.</p> <p>The Group notes that its current decarbonisation strategy and operational low-carbon pathway, is expected to lower its exposure to carbon taxes. In addition, the Group monitors environmental laws and regulations in relation to carbon pricing, including any potential financial impacts on the Group.</p> <p>The Group expects the financial impact of regulatory transition risks to be low.</p>

<p>Transition Risk: Technology – The cost of switching to lower-emission heating technology.</p> <p>The Group expects transition risks related to technology to materialise over the medium to long term.</p>	<p>Switching to alternative energy will reduce emissions but needs substantial investment for site upgrades and the technology is costly and still maturing. In the UK, the Group is exploring the long-term use of renewable heat pumps for its decarbonisation plan and keeps track of technological progress to achieve net-zero goals.</p> <p>The Group expects the financial impact of technology transition risks to be low.</p>
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Note, the Group has not published guidance for how it quantifies “low” financial impact for the above analysis.

Transition opportunity, per the BAE Systems Group’s 2024 annual report.

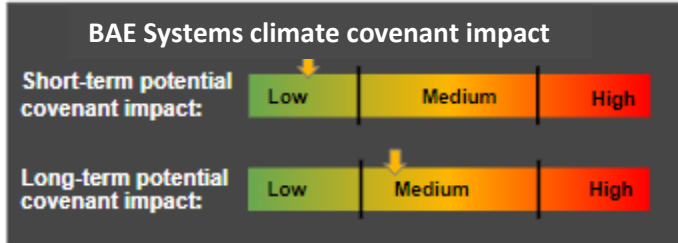
Opportunity	Group Response
<p>Products - The transition to a low carbon economy presents opportunities for the Group and continued innovation will be required to provide solutions to existing and new customer bases.</p> <p>The Group expects the opportunity outlined above to materialise over the medium term.</p>	<p>To decarbonise by 2050, the Group will need to ensure that its products and services support a decarbonisation pathway, achieved by advancing the efficiency of its products and services in the short term and transitioning to lower or zero emissions products and technology over the longer term. The Group will require continued investment in R&amp;D.</p> <p>The Group has been engaging with its customers to understand their decarbonisation pathways including the challenges they face regarding operational effectiveness and availability.</p>

The likelihood of climate-related risks and opportunities varies by scenario. Physical risks are more likely with limited global policy action, while transition risks are more prevalent with significant policy intervention, especially if rapid or disorderly.

The covenant adviser highlights the uncertainty in long-term physical risk assessment, partly due to economic modelling limitations, which may understate the potential impacts of such risks. They recommend that the Trustee continues to monitor the evolution of physical risks, including reviewing any new analysis published by the BAE Systems Group. This will help ensure that any required mitigations and adaptations are identified and appropriately implemented as part of the Group’s overall climate resilience strategy.

The data to assess the impact of transition risks remains limited, although it is likely that costs will arise from global policy developments and due to the Group’s net zero strategy. However, BAE Group’s 2024 financial results highlight strong liquidity and access to capital markets, underpinned by its investment-grade credit rating, supporting its ability to meet the costs of transitioning, if required. Additionally, elevated defence spending amid current geopolitical tensions may offset some financial pressures linked to the transition. However, it remains important to monitor transition risks as the BAE Group progresses towards its targets.

Based on the information available and the mitigating action being taken by management, the covenant adviser has concluded that the covenant is fairly resilient to climate-related risks over the short to medium term. This should continue to be monitored and considered within the context of the strong funding position of the BAE Systems Section of the Scheme and the diversified investment strategy.



Source: Covenant adviser, 2024

## Airbus

In 2022, Airbus committed to science-based emissions reduction targets. These targets were validated by the Science Based Targets initiative (SBTi) in 2023 (using 2015 as the baseline year). The targets are as follows:

- **Scopes 1 & 2:** -63% absolute reduction in greenhouse gas emissions by 2030, with neutralisation of any residual emissions.
- **Scope 3:** -46% reduction in greenhouse gas emissions intensity from commercial aircraft in service by 2035. The improvement is based on new aircraft technologies and design as well as uptake in use of Sustainable Aviation Fuel ("SAF"). It is expected SAF will play a bigger role moving towards the 2035 target.

In 2024 Airbus reported the following progress against these targets:

- **Scopes 1 & 2:** By 2024 Airbus had reduced greenhouse gas emissions by -51% (-9% for 2024 year on year); this supports the trajectory towards the SBTi target for 2030. This is partly due to the adjustment in aircraft delivery numbers following the Covid pandemic and from the increased use of SAF.
- **Scope 3:** By 2024 Airbus had reduced greenhouse gas emissions by -31% (-3% for 2024 year on year).

Climate change poses significant risks to the Airbus Group's industrial activities and broader air transport ecosystem, potentially affecting aircraft operation, regulations and stakeholder expectations.

Similar to the BAE Systems Group, physical risks, transition risks and transition opportunities are also considered by the Airbus Group to assess the impact of climate change.

Material physical and transition climate-related risks to the Airbus Group as per disclosures in the 2024 annual report.

Risk/Opportunity	Description
Physical Risk	<p>Under climate scenarios with limited mitigation action, the frequency and severity of extreme weather events such as flooding, storms, and heatwaves are expected to increase, along with long-term shifts in weather patterns. These changes pose potential risks to Airbus operations, infrastructure, and supply chains, particularly in regions prone to environmental stress. For instance, sustained high temperatures and altered precipitation patterns may accelerate the degradation of industrial assets, disrupt logistics flows, or impact employee health and safety. In response, Airbus may need to adapt product designs to ensure performance in more extreme operational environments and may face rising insurance and operational costs to safeguard its facilities and assets. While one-off weather events could impact the short-term covenant, chronic changes in climate are more likely to have long-term covenant implications due to their potential impact on operational resilience, cost structure, and asset values.</p>

## Transition Risk

**Customer priorities and competitors' progress:**

- This could affect demand for Airbus products. However, this is somewhat mitigated in the short to medium term by continued good visibility over future orders (the 2024 financial year order book of 9,551 units covers the next 12 years at the current production rate for commercial aircraft), regulatory visibility and risk management measures taken by the Group.

**Regulation:**

- Regulations for the aviation industry are implemented at regional or national levels, as opposed to internationally, potentially resulting in a negative impact on competitive conditions. Furthermore, changes to manufacturing cycles, which may be required in response to regulatory changes, often have a long lead time.
- There is also a risk of divergent regulation, with Airbus highlighting the challenge of non-harmonised regional climate regulations. Given Airbus operates in markets across the globe, this may result in competitive disadvantages if environmental rules evolve at different speeds or with differing strictness across jurisdictions.
- Over the longer term, rapidly changing environmental policies, meeting emissions targets, complying with climate regulations, and developing alternative fuels and low-emission aircraft, may require investment and pose risks for the Airbus Group. This risk is currently managed through Airbus' plan to invest in new aircraft types, SAF (with a target of at least 30% of SAF in its global fuel mix by 2030) and carbon offsets to reach net zero by 2050.

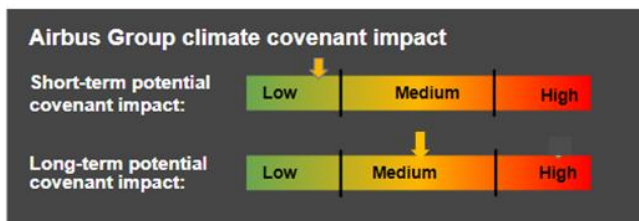
**Renewable and low-carbon energy:**

- Disruptive renewable and low-carbon technologies from competitors could result in a loss of market share and reduced revenue. With a growing emphasis on net-zero targets, it is likely that new technologies could affect Airbus' medium and long-term covenant. As noted in the covenant adviser's most recent covenant monitoring update, it noted the risk that Chinese manufacturers may leverage domestic hydrogen technologies to strengthen their market position.
- There are risks to the availability and affordability of renewable and low-carbon energy:
  - There is a risk of low volumes due to insufficient investments in renewable or low-carbon energy; and
  - Even if total volumes are sufficient, the sector may face constrained access, which could delay the transition from fossil fuels and uptake of new products to be developed by the Group, resulting in extended timelines for research and development investment return.

<p>Transition Opportunities</p>	<p>The Airbus Group could use its strong market position to generate new revenue streams, by offering more carbon-efficient products, developing new and market-leading technologies, and implementing new solutions to reduce carbon emissions. These could lead to the accelerated airline fleet replacement and new business lines in the longer term.</p>
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Airbus has stated that its pathway to achieving its Scope 3 target 2035 is expected to be driven more heavily by increased use of SAF, rather than technological changes. This aligns with observed industry trends. As a result, we have reduced the longer-term potential covenant impact given that technological transformation – previously viewed as a key driver of increased contributions – now appears less likely to be a significant factor (although remaining as a risk). We continue to note that the covenant is fairly resilient to climate-related risks over the short to medium term.

The above should continue to be monitored and considered within the context of the funding position of the Airbus Section of the Scheme.



Source: Covenant adviser, 2023.

## DB asset metrics

*Disclaimer: This section of the appendices sets out Goldman Sachs Asset Management’s (‘GSAM’) input into the Trustee’s climate disclosure report for the Scheme Report and Accounts for the year ending 31 March 2025. As requested by the Trustee, GSAM has provided information relating to the Defined Benefit assets of the Scheme managed by GSAM, the “fund manager”, on behalf of the Trustee.*

*For the avoidance of doubt, the information provided pertains to the Defined Benefit section of the Scheme and GSAM provides no advice and takes no responsibility for the other sections of the Scheme.*

*Please note that where GSAM relies on the accuracy of the information being provided to it by third parties, it accepts no responsibility or liability in case of errors or mistakes in such information.*

*Whilst GSAM has used reasonable efforts to provide this information for inclusion into the climate disclosure report, this document does not constitute advice to the Trustee, nor has the input been prepared on the basis that the content of the information is in line with or satisfies the legal and regulatory obligations of the Trustee in this regard. The legal responsibility for the climate disclosure report is with the Trustee. Therefore, the Trustee should take their own advice on the content and format of the climate disclosure report, in particular legal advice, in case they have any concerns about the information provided by GSAM.*

## Data sources

- Corporate carbon emissions, SBTi status, and sovereign emissions data, sourced from a third party, have been calculated by GSAM’s proprietary tool.

## Data calculation approaches

- Carbon footprints are normalised by enterprise value including cash (‘EVIC’) in \$m.
- WACI is normalised by company revenues in \$m.

- Financed emissions, carbon footprints and WACI are scaled to 100% from a data coverage perspective.
- Corporate scope 3 emissions are all estimated by the vendor, using their proprietary methodology.
- Emissions for public corporate credit reflect the publicly traded credit securities in the portfolio that are issued by either public or private company issuers.
- Sovereign production-based and consumption-based emissions intensities are normalised by PPP-adjusted GDP in \$m, in line with PCAF's methodology.
- The 'alternatives – renewables' exposures are proxied with a broad set of publicly listed companies operating in the renewable energy utilities industry for the purpose of emissions calculation.
- For property: GSAM, as an OCIO manager, does not directly manage the underlying assets; investment management is outsourced to third-party managers. This structure presents unique challenges in obtaining granular, asset-level emissions data for the properties portfolio. Property managers are able to select a different method or tool/service to calculate and report activity-based greenhouse gas emissions. As a result, portfolio companies may use different methodologies, primary data sources and assumptions to calculate their greenhouse gas emissions. This could result in differences in data quality and reliability as Multi-Asset Solutions cannot in all cases, verify, audit or amend this data. To arrive at the total portfolio emissions, GSAM has combined all provided data and supplemented it with what we believe to be reasonable industry estimations.
- Cash, derivatives, private equity, private credit and real assets other than property are out of scope for emissions calculations, due to insufficiently robust methodologies and emissions data coverage.
- Asset values and foreign exchange rates when used are as at 31 March 2025.

#### Formulas used

- **Enterprise value including cash ('EVIC')** is calculated as the sum of market capitalisation of shares and book values of total debts and minority interests at fiscal year-end.
- **Financed emissions** are calculated as  $\Sigma$  (investment size \* (company's emissions / EVIC)), scaled for coverage.
- **Carbon footprint** is calculated as  $(\Sigma \text{ wgt avg (company's emissions / EVIC)})$ , scaled for coverage.
- **Carbon intensity by revenue** (i.e. weighted average carbon intensity ('WACI')) is calculated as  $(\Sigma \text{ wgt avg (company's emissions / revenue in \$m)})$ , scaled for coverage.
- **Sovereign production-based intensity** is calculated as the scope 1 emissions of greenhouse gases excluding land, land use change and forestry ('LULUCF'), for the country/territory in tons of CO<sub>2</sub> equivalent per year per PPP-adjusted GDP (tCO<sub>2</sub>e / USD million GDP-PPP), scaled for coverage.
- **Sovereign consumption-based intensity** is calculated as scope 1 emissions (excluding LULUCF) + scope 2 + scope 3 – exported emissions in tons of CO<sub>2</sub> equivalent per year per PPP-adjusted GDP (tCO<sub>2</sub>e / USD million GDP-PPP), scaled for coverage.
- **Sovereign absolute emissions** are calculated as (sovereign carbon footprint x market value of the sovereign credit portfolio), scaled for coverage.

**Acronyms used throughout the report**

**AVC** - Additional Voluntary Contributions

**BAPFIM** - BAE Systems Pension Funds Investment Management Ltd

**DWP** - The Department for Work and Pensions

**ESG** - Environmental, Social and Governance

**EVIC** - Enterprise Value Including Cash

**FIC** - Funding & Investment Committee

**GSAM** - Goldman Sachs Asset Management

**GtCO<sub>2</sub>** - One billion tonnes of carbon dioxide

**NGFS** - Network for Greening the Financial System

**RI** - Responsible Investment

**RIC** - Responsible Investment Committee

**PCAF** - Partnership for Carbon Accounting Financials

**SBTi** - Science-Based Targets initiative

**TCFD** - Task Force on Climate-related Financial Disclosures

**tCO<sub>2</sub>e/£m** - tonnes of carbon dioxide equivalent per million pounds £m invested

**WACI** - Weighted Average Carbon Intensity