

G4S Pension Scheme

TCFD Report

1. Introduction

1.1. Chair's Commentary

We recognise the need for urgent, collective action on climate change

Welcome to our first Task Force on Climate-Related Financial Disclosures (TCFD) report.

The climate crisis has profound implications for UK savers. Left unchecked, runaway climate change will lead to substantial financial, environmental and social consequences. This is clearly not in our members' best long-term interests.

Integrating sustainability matters makes sense for our members

We think there are good investment reasons to focus on sustainability, and climate change in particular. By not considering major sustainability matters, including environmental, social and governance issues, we would be giving an incomplete perspective of the risks to the investments.

Our commitment

We have committed to aligning our investments to the progression towards net-zero greenhouse gas emissions in the global economy by 2050 at the latest. Net zero means not adding to the amount of greenhouse gases in the atmosphere.

By 2030, we have targeted investments to an aggregate 50% reduction in emissions.

This is consistent with the Paris Climate Agreement's objective of limiting warming to 1.5 degrees, what science tells us is the limit of warming that our planet can safely absorb.

In 2023 within the DB Scheme, our Scope 1 and 2 greenhouse emissions per £1m invested was 65.6 tonnes of carbon dioxide equivalent. For every million pounds of investment, this is the equivalent of around 8 million smartphone charges¹.

This is our first TCFD report, and we continue to work with our stakeholders to target our portfolio's 50% emissions reduction by 2030 and we'll take the decisions necessary to align the portfolio consistent with our 2050 net zero emissions goal.

2. Governance

2.1. Introduction

As the Trustee of the Scheme, we consider climate change to be a significant risk, which is reflected in how we interpret our duties and responsibilities. The Trustee believes that Climate Change related Risk and Opportunities (CCRO) are, and will continue to be, a financially material factor and as such is incorporated in our investment decision making. The Trustee further believes that, to the extent our decisions, including investment related decisions, have an impact on climate change, it is appropriate for us to aim to minimise the harm done by our decisions to the extent this can be done without compromising our financial responsibilities.

To fulfil our duties to the Scheme regarding CCRO, we have prepared this CCRO Policy and also put in

¹ Source: United States Environmental Protection Agency

place a governance framework that provides structure for making climate-related decisions and to ensure that we integrate climate risks and opportunities in our decisions on behalf of our members, which include investment related decisions. It shows where responsibility lies for decision making and sets out how this work is integrated into our longer-term plans, monitoring framework and meeting cycle.

This framework has been prepared in line with the latest regulation and guidance. This includes the Pension Schemes Act 2021 and the Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 (the Regulations), statutory guidance for climate governance and reporting of CCRO issued by the Department for Work & Pensions (DWP), the guidance prepared by The Pensions Regulator (tPR), the non-statutory guidance prepared by the Pensions Climate Risk Industry Group (PCRIG), as well as recommendations set out in the Taskforce for Climate-Related Financial Disclosures.

The framework comprises three main elements:

1. Trustee Oversight
2. Trustee Knowledge and Understanding
3. Third-Party Providers

2.2. Trustee Oversight

The Trustee is ultimately responsible for the oversight of CCRO as they relate to the Scheme.

This report covers the Scheme's three sections; the Securicor Section, the Group 4 Section and the GSL Section, and the Defined Contribution Account.

2.2.1. Defined Contribution oversight

The Scheme's Defined Contribution ("DC") Section is valued at c.£8 million and represents less than 1% of the total Scheme assets. Furthermore, the DC Section does not use the same investment funds that the DB Section uses. The statutory guidance for trustees stresses the importance of taking a proportionate approach to climate-related risks, opportunities and reporting, recognising that data may be expensive to collect and associated analysis complex to perform. As such, the DC Section's assets have not been included within this report as they represent a disproportionately small part of the Scheme. The Scheme's TCFD sub-committee has received TCFD reports for the funds held in the DC Section's default investment strategy.

2.2.2. Defined Benefit oversight

Climate change is a financially material risk that we consider in our decision making.

The Trustee sets its processes within the governance framework concerning climate change, including:

- Agreeing the types of climate-related risks and opportunities which they consider will have an effect over the short, medium and long terms on the Scheme's investment and funding strategies
- Agreeing the time periods which comprise the short, medium and long term applicable to the Scheme, taking into account the Scheme's liabilities and its obligations to pay benefits as appropriate
- Ensuring that the Scheme's risk management processes adequately incorporate the identification, assessment and effective management of relevant climate-related risks
- Agreeing appropriate climate-related targets for the Scheme
- Agreeing the climate-related metrics that are used to measure progress towards the climate-related targets, which will include at least one absolute emissions metric, one emissions intensity metric, one alignment metric, and one additional climate change metric
- Agreeing the Scheme's approach to scenario analysis, including the scenarios to model (which will include at least two scenarios where there is an increase in the global temperature and in at least one

of those two scenarios the global average temperature increase selected will be within the range of 1.5 and 2 degrees Celsius above pre-industrial levels)

The Trustee will review the policy (including the metrics, targets, scenario analysis etc.) annually.

The Trustee delegates responsibility for implementing the DB investment strategy to a fiduciary manager. The Fiduciary Manager aligns its investment decisions with the Trustee's climate change policy. It has set up a TCFD subgroup within the Trustee ("The Working Group") to help streamline discussions between the Trustee and its advisers.

The Trustee will maintain oversight through its quarterly reporting and meeting cycle where CCRO matters are considered. CCRO information and reporting includes updated information on Targets, progress against those Targets and climate change scenarios, and assessments of the impact of the climate-related risks and opportunities on the Scheme's investment and funding strategy.

- The Trustee meets with its investment advisers quarterly and receives advice and monitoring reports
- The Working Group, in conjunction with the Fiduciary Manager, will be developing a more detailed analysis of the effect that climate-related risks and opportunities will have on the Scheme's investment and funding strategy.
- The Working Group will report back to the Trustee

2.3. Trustee Knowledge and Understanding

While we are not directly involved in the day-to-day investment decision process, we as the Trustee, are ultimately responsible for ensuring that CCRO are identified, assessed and managed on behalf of the Scheme and its members. We are therefore required to have sufficient knowledge and understanding of the types of climate-related risks and opportunities which may have an effect on the Scheme and in order to set metrics and targets for our service providers and interpret the results of any analysis and reporting provided to us. We need to ensure that we are sufficiently informed so that we are able to challenge assumptions, external advice and information received and to fully understand any proposals developed by our advisers.

The Trustee maintains its Knowledge and Understanding with respect to climate change by:

- Identifying regulatory developments that are relevant to the Scheme, including guidance provided by the Pensions Regulator and the Department for Work and Pensions
- Engaging with peer groups, industry bodies and advisers to compare the Scheme's position to peers
- Attending specific sessions on climate change and TCFD requirements run by our Fiduciary Manager. For example, The Working Group have engaged in specific training sessions run by the fiduciary manager on the requirements of TCFD reporting.

2.4. Third-Party Providers

We do not carry out underlying investment activities ourselves but rely on our Fiduciary Manager and third-party asset managers (including any third-party managers for the Defined Contribution Scheme) to identify and assess climate change risks and opportunities. In respect of the DB section, we will also consider input from other third-party providers, specifically the Scheme's Actuary and Covenant Advisers.

Aon, as the Scheme Actuary:

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

The Scheme's covenant adviser, Cardano Advisory, advises the Trustee in relation to the Scheme sponsor's ability to continue to support the Scheme. The employer covenant is the extent of the employer's legal obligation and financial ability to support the Scheme now and in the future.

Climate-related exposures could have a positive or negative impact on the strength of the Scheme sponsor's covenant. Therefore, Cardano has begun to include climate-related matters in the covenant advice provided to the Trustee.

Cardano Advisory will work in conjunction with the Trustee and the Scheme's other advisers to assist the Trustee in producing the Scheme's TCFD report on an annual basis, in line with TCFD requirements.

When selecting third-party providers, we require each provider to demonstrate sufficient credentials in relation to the assessment of climate-related matters. This is done by assessing the providers in terms of their:

- Level of understanding on climate change
- Commitment to decarbonisation targets, including the Paris Climate Agreement of global warming to +1.5°C
- Corporate policies focusing on reaching stated decarbonisation targets
- Resources in place to deliver to climate related objectives
- Ability to report to us
- Associations with and involvement in relevant industry bodies

The Trustee reviews its third-party providers on a regular basis to ensure all stated processes for those managing / advising the Scheme on climate governance remain appropriate.

In relation to our Fiduciary Manager, the Trustee sets objectives informed by the competency framework proposed by the Investment Consultants Sustainability Working Group. These competencies may be assessed as part of our annual assessment of our Fiduciary Manager.

Our Fiduciary Manager assesses our third-party fund managers' climate change competency. This forms part of the Fiduciary Manager's advice making. For the avoidance of doubt, any CCRO applying that are not associated with an aspect or aspects of integrated risk management, will be picked up by the Working Group that have the oversight of the relevant risk and appropriately reflected in the risk management framework. Overall responsibility for climate related risk would remain with the Trustee and the Working Group should report any work carried out in this area back to the Trustee.

3. Strategy

3.1. The short-, medium- and long-term time periods identified for our Scheme

Consistent with guidance from the Pensions Regulator and the position of our DB Scheme, we, the Scheme Trustee, consider:

- Short-term to be 3 years
- Medium-term to be 5 years
- Long-term to be 12 years

The rationale for each of the time periods is as below:

- The short-term refers to the period over which we focus on those risks that have been delegated to the external investment pools and managers; these mandates are typically judged over time horizons of up to five years. This is also the period for which the current investment strategy is expected to remain in force.

- The medium-term refers to the period over which we focus on those risks that currently fall outside the scope of the external investment management mandates but which are not considered to be long-term in nature, for example risks relating to broad market conditions or to identifiable anomalies or trends in the investing environment that fall across multiple asset classes.
- The long-term refers to the period over which the majority of the benefit payments are expected to be made by the Scheme with respect to the current membership. Whilst the Scheme could exist for longer than the 12 years, it is understood that by that stage the Scheme will be mostly invested in government and corporate bonds or potentially insurance contracts where the Trustee will have less influence.

3.2. The climate change-related risks and opportunities that will affect our Scheme's investment strategy over the short-, medium- and long-term

We consider:

- Transition-related risks, including environmental opportunities;
- Physical risks.

The transition-related risks relate to the need to transition a business to be consistent with the decarbonisation pathways set out in the Paris Climate Agreement.

The physical risks relate to the increase in weather events that result from a warming, and unpredictable climate, such as rising sea levels, droughts, floods, and wild-fires.

We consider these risks systemic – in other words, there will be social and economic impact across our portfolio, which needs to be managed across the short-, medium- and long-term.

Physical risks over the medium-term (up to 10 years) are relatively similar regardless of the scenario we look at because in all scenarios the climate will continue to warm to at least 1.5 degrees over this period. In the longer term the physical risks will start to diverge substantially in warmer versus cooler scenarios.

The table below summarises the climate change-related risks likely to materialise reported by The Bank of England's Prudential Regulation Authority²:

Climate-related risk		Short/Medium/Long Term	Main causes of financial impact on members
Physical	Acute	Medium/Long	Increased frequency and/or severity of extreme weather events
	Chronic	Medium/Long	Steady increase in global sea levels and changes in precipitation patterns
		Medium/Long	Rising temperatures
Transitional	Policy and legal	Short/Medium	Regulations of existing products and services
		Medium/Long	Sectors facing penalty incentives could harm current business models
	Market demand	Short/Medium	Changing consumer behaviour
	Technology	Medium	Existing products replaced with lower emission technology

² <https://www.bankofengland.co.uk/climate-change>

	Reputational	Short/Medium	Increased scrutiny following changes in stakeholder's perceptions of climate-related action or inaction
Liability	Direct	Medium	Those seeking compensation for financial losses as a result of physical and transitional risks
	Third-party	Medium/Long	Those seeking compensation for damages of physical risk

3.3. The impact of the risks and opportunities on the Scheme's investment strategy

We consider climate change-related risks and opportunities in relation to the Scheme's investment strategy, including the asset allocations and asset management structure. Climate change-related risks and opportunities could, for example, affect:

- The dividend paying capability and the share prices, of companies in which we are an owner (either directly or indirectly);
- The prospects and prices of portfolios that we invest in via derivatives;
- The creditworthiness of the issuers of the fixed income assets in which we invest;
- The prospects for banks and other financial institutions that we place cash with;
- Systemically, impacting multiple parts of the portfolio at the same time, and in the same direction.

We consider climate change-related risks and opportunities in a number of ways:

- Our investment policy, and how climate change may affect the different asset classes we are invested in over time;
- Asset class selection and their susceptibility to climate risk;
- Allocation within an asset class;
- Selection of instruments.

3.4. Scenarios

3.4.1. Details of the most recent scenarios we have selected

Our three scenarios are 1.5°C Paris-aligned transition, 2°C "late transition" and 3°C "slow transition" or "hot house".

- Paris-aligned transition – this is our goal: AIM/CGE³ 1.5°C assumes measures are taken that will keep the rise in temperature limited to 1.5°C;
- Late transition – following a review in conjunction with our Investment Adviser, Cardano, this is a forecast of what we think is most likely to happen: Late AIM/CGE 2 degrees assumes measures are introduced to tackle climate change, but are introduced too late to meet the Paris Agreement;
- Slow transition – this is our hot-house scenario: AIM/CGE 3°C assumes current policies being continued. According to the UN, we are currently on track for 3°C warming.

3.4.2. The reasons for choosing the scenarios we have used

We use scenario analysis due to the complexities involved in forecasting the degree of warming that will result from climate change; including the policy uncertainty, multiple environmental tipping points, and as potential technology advances.

Each scenario consists of a degree of warming and a measure of financial risk. In other words, what do we expect the financial risk to be, and across which asset classes / investments, based on a certain degree of warming?

We have chosen to disclose three scenarios, because we believe this provides us with metrics that can inform our investment decisions. They are scenarios that highlight the impact of physical risks and transition risks in different scenarios and so enable us to draw conclusions about the different components of climate change-related risks and opportunities.

³ The AIM/CGE model is a multi-regional, multi-sectoral, computable general equilibrium (CGE) model.

3.4.3. The resilience of our investment strategy in these scenarios (in other words, the results)

Our scenario analysis is used to produce a Climate Value at Risk (CVaR), which is the measure we use to assess the financial risk exposures of a portfolio. It estimates the financial value at risk to the corporate equity and credit exposures of warming scenarios at 1.5°C, 2°C and 3°C. The expected loss is calculated by considering the loss associated with transition risks and the loss associated with physical risks.

Table 1:

Value at Risk in Scenario	1.5 degree CVaR		2 degree CVaR		3 degree CVaR	
	Physical	Transitional	Physical	Transitional	Physical	Transitional
Corporate Long Exposure	-4.7%	-11.6%	-4.7%	-5.6%	-5.9%	-0.5%
Corporate Short Exposure	-0.1%	-0.0%	-0.1%	-0.0%	-0.1%	0.0%
Net Corporate Exposure	-4.7%	-11.5%	-4.7%	-5.6%	-5.8%	-0.5%

Source: Cardano

Interpreting the results

- As temperatures increase the costs associated with transition risks decrease and physical risks increase, which is due to the expectation that weather events become more frequent, and more severe.
- For physical risks, the modelling only considers the period to around 2040. This is because, it is too complex to model the physical risks associated with climate change beyond about 15 years. As such, in our view, the physical risks presented here are unlikely to capture the full financial effects of a warming climate.
- We will use this scenario analysis to help inform our investment decision-making, to ensure our portfolio is robust when it comes to climate change-related risks and opportunities. In other words, the numbers here are a starting point for our investment decision-making, and should be considered alongside the metrics, and target setting.
- Corporate Exposure refers to the Scheme's investment in public equity and credit. As the investment strategy includes funds that can short equity or credit, we have also included this financed exposure; by combining we report a net corporate exposure. The private equity portfolio is not included in this analysis.
- For Climate Value at Risk, consistent with the IIGCC guidance, we are comfortable looking at the aggregate exposure of long and short positions across direct holdings: long exposures will add to financial risk and short exposures reduce financial risk exposure.
- Climate VaR allows for the relative risks of debt and equity. For example, equity may be more vulnerable to a shock or loss than credit. It is not additive across different stand-alone components, therefore we do not separate Climate VaR between asset classes.

3.4.4. The key assumptions for the scenarios we have used and any limitations of the modelling

In completing the analysis, we have relied on Cardano and the methodology that MSCI has developed to calculate Climate Value at Risk. Without covering all of the methodology used, broadly speaking, this operates by breaking risk into three parts:

- **Transition risk:** This is broadly calculated by considering a company's exposure to carbon emissions and an assumed carbon price. To the degree that that carbon price is not currently embedded in the company's cost base, this increases the cost to the company causing a loss of profitability. The carbon price assumptions are linked to the climate change scenario that is selected. In a 1.5°C scenario, carbon prices are assumed to increase more rapidly than in the 3°C scenario, creating more transition risk for businesses.
- **Physical risk:** This risk looks at the potential losses that can occur due to more extreme physical risks, particularly over the next 15-year time horizon and is based on Cardano's modelling of the company's risk exposures. This does not allow for the economic impact that higher temperatures might have, for example, slowing economic growth.

Any scenario analysis is heavily dependent on the underlying assumptions made. Following discussions with Cardano, we believe that the key assumptions underlying the modelling are reasonable and we will review them annually to ensure we remain comfortable. However, there are a number of fundamental uncertainties including:

- Uncertainties in future greenhouse gas (GHG) and aerosol emissions. Each scenario implies different levels of atmospheric composition and hence of radiative forcing.
- Uncertainties in global climate sensitivity due to differences in the way physical processes and feedbacks are simulated in different models. These create further uncertainties in:
 - Expected warming for a given GHG stabilisation scenario.
 - Emission trajectory required to achieve a particular stabilisation level.
 - Estimates of the strength of different feedbacks in the climate system, particularly cloud feedback, oceanic heat uptake, and carbon cycle feedback.
 - Aerosol impacts on the magnitude of the temperature response, clouds and precipitation.
 - Future changes in the Greenland and Antarctic ice sheet mass, particularly due to changes in ice flow.
- Uncertainties surrounding regional projections of climate change, particularly precipitation that may give different results by different methodologies for the same mean global warming.
- Translating the climate change scenarios into impacts on the Scheme's portfolio also requires a range of assumptions and when doing this we note a number of other uncertainties:
 - Uncertainties around the government policies which will drive transition risks including legislation and regulation, monetary policy and fiscal policy.
 - Uncertainties around the economic impacts on future growth and inflation of both the climate change factors and the government policies.
 - Uncertainties around the market reactions to changes in policy, growth and inflation.

3.5. Engagement

3.5.1. Engagement with companies and governments

Our goal is net zero greenhouse gas emissions globally, and we seek to maximise influence to achieve this.

As such:

- We will resist pressure to modify portfolios to meet headline portfolio level decarbonisation targets at the expense of incentivising the necessary real-world transition. We believe it is important to engage with companies and governments and to supply enabling capital to achieve long term transformation and decarbonisation than it is to hit short term carbon footprint target metrics.

For example, emerging markets, which have higher carbon footprints, in part because they produce carbon intensive goods consumed by developed markets, require capital in order to transform their economies.

For these reasons, portfolio decarbonisation targets will continue to be reviewed at least every three years to ensure they remain appropriate.

3.5.2. Asset manager engagement

The Scheme Trustee expects:

- UK-regulated asset managers to be signatories of the Stewardship Code;
- Non-UK regulated managers to exercise their voting rights in a manner consistent with a focus on medium and longer term investment performance.

As part of their responsibilities, where applicable, the Trustee expect the Scheme's asset managers to:

- Engage with investee companies with the aim to protect and enhance the value of assets; and
- Exercise the Trustee's voting rights in relation to the Scheme's assets;
- Incorporate the Trustee's views on climate change risk and opportunities.

4. Risk Management

4.1. How we identify and assess climate change-related risks and opportunities

The Trustee has identified the following risks as posing the greatest potential loss and being the most likely to occur:

- Risk 1 – correctly identifying portfolio risks from climate change - new risks are likely to emerge (physical and transitional);
- Risk 2 – insufficient action to deviate from the “hot-house” scenario (transitional);
- Risk 3 – we do not continue to work to evolve the investment strategy as we move through time (transitional);
- Risk 4 – correlated portfolio risks - while asset managers may consider the individual climate change related risks and opportunities per company or investment, the Scheme Trustee needs to consider them across the portfolio as a whole.

4.2. How we integrate these processes into overall risk management for the Scheme

The Trustee governs the portfolio and oversees the Investment Adviser, Investment Committee and the Scheme’s investment asset managers (Asset Managers) who help scan, measure and monitor the climate change risks and opportunities and determine their relevance to the Scheme. The Trustee along with their Investment Adviser, adopt a variety of methods to help with the analysis including:

- Reviewing relevant background material and identifying regulatory developments that are relevant to the Scheme, including guidance from the Pensions Regulator and Department for Work and Pensions;
- Engaging with peers, industry bodies and advisers;
- Identifying relationships between events and news, and business and financial impacts to manage reputational risks;
- Identifying and assessing physical and transitional risks over different time horizons;
- Considering the impact of physical and transitional (including operational) risk factors.

4.3. The risk management tools we – and our investment adviser – have used and the outcomes of using those tools

Level 1: Selection of MSCI as an external sustainability data provider

In 2020, Cardano appointed MSCI as its external sustainability data provider. The appointment followed an RFP process which reviewed the service offerings of different providers. Cardano selected MSCI for a number of reasons, in particular, the extent of its coverage, MSCI’s research process (and as such, data reliability), and portfolio scenario analysis based on degrees of warming, following the acquisition of carbon delta in 2019⁴.

The appointment (and reappointment) is also overseen by the Cardano Group’s Sustainability Policy Committee.

⁴ <https://ir.msci.com/news-releases/news-release-details/msci-strengthen-climate-risk-capability-acquisition-carbon-delta>

Level 2: Participation in industry groups working on methodology development, in particular, IIGCC and PCAF

The DWP's TCFD regulations set out multiple methodologies to determine corporate and sovereign greenhouse gas emissions metrics. There remain methodology challenges for 'hard to reach' asset classes, such as hedge funds, commodities and derivatives.

Cardano participates in and contributes to multiple industry initiatives to develop and evolve metrics and reporting on climate change, in particular, IIGCC and PCAF. IIGCC is the Institutional Investors Group on Climate Change, and it hosts the Paris-Aligned Investment Initiative. The initiative sets out the advantages and disadvantages of the multiple methodologies used to determine a company's, and portfolio's, absolute emissions, emissions intensity, and more recently, environmental alignment.

Methodologies used to calculate GHG emissions: Typically, financed emissions (the emissions we are responsible for as an investor) are calculated using GHG emissions per unit of sales or per enterprise value. Our preference is enterprise value which we consider a more stable measure, allowing for year-on-year comparisons. Enterprise value consists of a company's equity, debt and cash, and goes by the acronym EVIC (enterprise value including cash). This aligns with MSCI.

Level 3: Internal controls

Cardano has implemented internal controls in the preparation of TCFD metrics and scenarios, which we have reviewed. We assess these internal controls to ensure they are appropriate.

Finally, we note that there will be inaccuracies in the data. In some markets, corporate greenhouse gas emissions disclosures are not regulated, and not subject to audit. Scenarios rely on multiple assumptions. The quality of the data is constantly improving. We believe that the processes we have implemented are market-leading and mitigate for known limitations in data quality and coverage. We will continue to engage with standard-setters, policymakers, data providers and companies to improve data quality.

4.4. Understanding covenant risks

The Trustee recognises it is crucial to better understand the potential impact on the covenant of the effects of climate change, which can also impact on the long-term funding requirements of the Scheme.

To test the resilience of the Scheme's funding strategy, our covenant adviser, Cardano Advisory, has primarily focused on the downside risks which the covenant may be exposed to, to help inform the Trustee's strategic mitigation of climate scenarios.

The following assessment, carried out by Cardano has considered both the Scheme's employer G4S Limited ("G4S" or the Company) and Allied Universal ("AUS" or the "Group") given the Scheme's guarantee structure and the integrated nature of the Group's operations.

4.4.1. Scenarios analysis

Figure 2 below provides an overview of the scenario climate risk analysis over time on the covenant. The key findings from the risk analysis are as follows:

- In the near term, climate risks to the Scheme appear to be modest in both scenarios given the relatively low carbon-intensity and carbon footprint of the Group
- Over the medium term, risks appear to be greater in the Slow Transition scenario as the physical impacts of a changing climate, and the associated impact on the Group's operational locations and staff, begins to become more pronounced

- Over the longer-term increased physical risks in both scenarios will present greater challenges, albeit exacerbated in the Slow scenario. The medium risk in the Paris-Aligned scenario is in part related to the Group's sustainability targets being slightly behind that of its main competitors as well as the challenges the Group faces in decarbonising its vehicle fleet to meet net zero targets (particularly in areas of the world that may not have supporting infrastructure), which may mean the Group needs to look at other solutions, including offsets

Cardano has identified 'higher, medium and lower' risks, but note that this is a relative judgement of the scenarios and time horizons (rather than higher risks necessarily representing a genuine concern around the resilience of the sponsor).

Climate risks do not appear to pose a material threat to the covenant available to G4S and AUS over the near-term. However, risks appear to increase over the medium-term (Slow Transition) and longer-term (both scenarios).

Table 2: assessed climate scenario risk analysis over time

	Near term <i>Up to 2025</i>	Mid term <i>2025 to 2028</i>	Long term <i>2028+</i>
Paris – Aligned	Lower risk	Lower risk	Medium risk
Slow Transition	Lower risk	Medium risk	Higher risk

4.4.2. Covenant analysis conclusions

To address the risks noted above, the Trustee has considered the recommendations from the covenant adviser in each of the following areas:

- To integrate the climate risk analyses on covenant, funding and investment to assess whether these risks are correlated;
- To monitor the climate covenant risks identified in this assessment through the Trustee's regular monitoring framework - e.g. progress in de-carbonisation of vehicle fleet, the impact of extreme weather events on business disruption and renewable energy pricing;
- To consider how the climate risk could impact the Scheme's funding targets and desired end-game, including any acceleration in the journey planning time horizon, and any decisions on covenant risk transfer to another counterparty / insurer;
- To document identified climate related risks and mitigation strategies in an integrated way within the DWP mandated disclosures.

4.5. Understanding funding risks

Climate change may also impact the value of the Scheme's pension liabilities, i.e. present value of future benefit payments. This impact could be via any or all of:

- Changes in interest rate expectations,
- Changes in inflation expectations,
- Changes in life expectancy.

Whilst we acknowledge the possibility of 1) and 2), we have implemented a liability hedging strategy which manages the risk up to the value of the assets. This strategy helps to mitigate risk to our funding level from adverse movements in interest or inflation rates over time.

The Trustee has also engaged with the Scheme Actuary, Aon, to understand how various climate scenarios will impact the liabilities of the Scheme.

Aon have developed their thinking to consider the impact of climate change on individuals' life expectancy, which they expect will vary by scenario and time horizon. This incorporation of mortality impacts means the scenarios analysed by the Trustee do not just consider economic variables, such as the impact on inflation or growth rates, but also reflect the demographic aspect which is important when considering pension scheme liabilities.

Aon have provided analysis of the mortality impact of scenarios that align closely with the scenarios chosen by the Trustee. Aon allow for the impact of each scenario on mortality through adjusting the parameters under the standard mortality tables which determine the rates of future improvements. Aon provide an indication of the total mortality impact on liabilities in differing climate scenarios below.

Table 3:

Indicative impact of climate scenarios	Paris Aligned (1.5 °C)	Late Transition (2 °C)	Hot House (3 °C)
Mortality impact on Gilts+0% liabilities	+2%	-1%	-4%

Source: Aon. Notes: Indicative analysis only. Figures are based on the impact on male life expectancy (age 60) but each scenario impacts females to the same extent. The figures are appropriate for the overall profile of the Scheme and the discount rate being used for the Cardano | AIM modelling.

4.5.1. Interpreting the mortality impact

Paris Aligned scenario:

In the short to medium term Aon expect severe global economic stress in this scenario but a return to strong global growth over the longer term. With this in mind, disruption to health and social care services may increase mortality in the short term. Over the longer term, better air quality and improved health conditions may lead to lower mortality. The net effect under this scenario is an increase to liabilities.

Late Transition scenario:

Aon believe the short to medium term mortality improvements in this scenario are in line with the current expectations, however, over the longer term mortality improvements are slightly lower. The direct climate impact in this scenario is likely to be minimal, with overall a small reduction to liabilities.

Hot House scenario:

In the Hot House scenario Aon expect higher incidence of extreme weather events and more volatile financial markets to be a drag on economic growth. In such an environment, particularly where the drag on economic growth coincides with a lack of spending on health and welfare, they expect there may be no long-term improvements in mortality. This will have the effect of a noticeable reduction in liabilities relative to current expectations. In terms of the direct climate impacts, fewer deaths from warmer winters may more than offset any impact of heatwaves but the impact is likely to be marginal.

5. Metrics and Targets

5.1. Who is our data provider?

Cardano employ the services of MSCI to provide them with data and metrics. Measuring the success of sustainability initiatives requires new types of data analysis. A third party data provider allows us to improve our portfolio analysis and provide valuable insight into ESG factors that can have a significant impact on investment outcomes.

Our primary data source is MSCI ESG and Climate Scenario analytics, which we use to assess the sustainability of our own investments and those of our managers using analysis provided by Cardano⁵.

5.2. What are the limitations?

We recognise the importance of managing climate change-related risks and opportunities – but also the challenges involved in ‘doing it well’. We continue to develop and evolve our policies to reflect climate change-related challenges. This reflects the evolution of our thinking on sustainability and the changes underway in the financial services sector, and society more broadly.

When measuring at portfolio level, where we aggregate the emissions of investee companies. We recognise that there remain gaps in data availability, in particular, regarding Scope 3 emissions.

Scope 3 emissions help us better understand a company’s sensitivity to climate change-related risks and opportunities, and its ability to transition. It can therefore help to understand relative performance of different companies within industries.

While we believe companies should disclose their Scope 3 emissions we note that there are a number of data challenges which will take time to resolve.

As shown in Table 4, approximately 34% (net credit and equity exposure financed) of the portfolio’s assets are included within the emissions data. We recognise this does not cover most of the portfolio’s assets as disclosed in 3.3.1 and that this coverage level is a limitation when disclosing our emissions data. We note that the majority of equity issuing companies are already being covered and that the credit issuing company analysis is still developing.

5.3. Metrics

5.3.1. The metrics we have calculated

We calculate and disclose the following metrics:

- **Absolute financed emissions** – This is the total greenhouse gas (GHG) emissions, in carbon dioxide equivalent, of the portfolio.
- **Carbon footprint** – This is the emissions intensity metric and is represented by the total GHG emissions in carbon dioxide equivalent per £m invested.
- **Data availability (as shown as % coverage)** – This is the data availability across our portfolios. We will work with our Investment Adviser and our asset managers to engage companies, policy makers and data providers to improve data quality and coverage.

⁵ <https://www.msci.com/our-solutions/esg-investing/climate-solutions/climate-risk-reporting>

- **Alignment metric** – This is the percentage of companies in our portfolio that are decarbonising their activities consistent with the decarbonisation pathways set out in the Paris Climate Agreement. It is currently 9%

Useful definitions⁶:

SCOPE 1:

These emissions result from sources directly owned or operated by the business. For example, does the business have a fleet of vehicles? Do they burn fossil fuel? Maybe the business has buildings with boilers.

SCOPE 2:

These are emissions based on energy the business purchases to directly operate their enterprise. The most common across-the-board example is electricity consumption.

SCOPE 3:

Emissions resulting from activities not directly owned by the business but are associated with its operation. Examples; business travel, waste management, commuting, third-party distribution. Upstream emissions come from the production of the business's products or services, while downstream emissions come from their use and disposal.

CARBON DIOXIDE EQUIVALENT:

Carbon dioxide equivalent, or CO₂e, is a metric measure used to compare the emissions from various greenhouse gases by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.

Table 4:

Emissions associated with our direct financed exposure

Asset class	% exposure financed	% coverage	Absolute Financed Emissions			Carbon Footprint: Emissions intensity per £m invested		
			Scope 1+2	Scope 3 upstream	Scope 3 downstream	Scope 1+2	Scope 3 upstream	Scope 3 downstream
Equity long	0.2%	94.6%	739	1,000	1,321	146.6	198.5	262.3
Equity short	1.8%	97.0%	1,204	3,520	9,456	32.7	95.6	256.9
Private Equity	8.6%	100.0%	26,857	33,862	224,105	149.6	188.6	1,248.5
Net Equity	10.2%	99.4%	27,323	36,862	232,240	125.7	167.3	1,068.0
Net Credit	23.8%	68.0%	19,423	61,403	126,493	39.3	124.1	255.7

Source: Cardano. Data represents exposure and fund holding data as at 31/03/2023

⁶ Source: <https://ec.europa.eu/eurostat/statistics-explained> and <https://www.southpole.com/sustainability-solutions/ghg-accounting>

Interpreting the results:

- The absolute emissions tell us the emissions associated with our investments. While an important metric for us – and the regulator – it is difficult to use this metric for comparison purposes, because it is dependent on the size of the Scheme at the point we conduct the analysis.
- Therefore, we disclose an emissions intensity metric (or carbon footprint), which is the total GHG emissions per £1m invested. This is useful, because, while subject to market fluctuations, it allows us to compare our emissions year-on-year and help us check we are moving in the direction of achieving our targets. For example, both the absolute emissions and emissions intensity should tend to 0 if we're to meet our net zero target.
- The emissions data **does not** include the Scheme's exposure to:
 - Cash.
 - Exposures to funds that have minimal credit and equity exposures or invest in these securities over a short time horizon, mostly using derivatives. These funds include hedge fund strategies and other liquid alternative strategies. We note that these strategies have to date been "hard to reach", but progress is being made via industry groups such as the IIGCC.

We report sovereign bonds carbon footprint separately from this measure for several reasons:

1. There is no comparable measure for sovereign bonds to financed EVIC (because countries' debt levels are not comparable)
2. Total Sovereign country greenhouse gas emissions involves substantial double counting of emissions with corporate greenhouse gas emissions, and
3. We believe adding sovereign numbers to corporate numbers can substantially obscure the dynamics of monitoring the changes to the corporate Portfolio Carbon footprint over time. Our preferred approach to Sovereign Carbon Footprint is to consider weighted average GHG emissions per Capita which we record and report separately below.

Table 5:

Sovereign bond carbon footprint

	Average GHG in tons of carbon dioxide equivalent per person	Funded gilts only (long only)	Net exposure Combined gilt exposure (physical + derivative government bonds, long only)
UK	6.2	44%	c. 100% of the DB Scheme

Source: Cardano. Data represents exposure and fund holding data as at 31/03/2023.

5.4. Targets

5.4.1. The target we have set in relation to the metrics we have calculated, and as far as you are able, your scheme's performance against that target

The Trustee has set the following principal target with respect to the Scheme:

- To align our investments to support the goal of net zero greenhouse gas emissions by 2050, in line with global efforts to limit warming to 1.5°C.

Specifically, we commit to:

- Work in partnership with other asset owners on decarbonisation goals, consistent with an ambition to reach net zero emissions by 2050 or sooner.
- An interim target for 2030, consistent with a fair share of the 50% global reduction in greenhouse gases, identified as a requirement in the IPCC special report on global warming of 1.5°C⁷. 2019 is the baseline year as we have confidence in the climate change data from this year and is prior to the Covid 19 pandemic, which due to lockdowns, saw fluctuations in fossil fuel use.
- Review the progress against our target every year, and to review the target itself at least every three years, to ensure it remains consistent with the latest scientific thinking and is appropriately incentivising the necessary economic transition.

The portfolio Carbon Footprint will be measured against these targets.

Our objective is to achieve where possible decarbonisation through the transformation of underlying businesses and government activities rather than divestment (because it is in our members' interests to decarbonise the economy-as-a-whole, and by remaining invested we retain our influence on the companies that must transition). When doing so, we consider two simultaneous objectives:

1. Aiming for the best financial risk/reward
2. Aiming for the maximum influence and impact in achieving the target objectives because we believe this helps address the systematic risks associated with climate change

5.4.2. The steps we are taking to achieve our target

Our Investment Adviser has committed to:

- Provide us with information, metrics and analytics on net zero greenhouse emissions by 2050 investing and climate change-related risks and opportunities.
- Engage with those key to the investment system including data and service providers to ensure that products and services available to the Trustee are consistent with the aim of achieving global Net Zero emissions by 2050 or sooner.
- Ensure any relevant direct and indirect policy engagement is undertaken in support of achieving global net zero greenhouse gas emissions by 2050 or sooner.

We will:

- Take account of and report on progress against Scope 1 and 2 emissions and, to the extent possible, material portfolio Scope 3 emissions.
- Prioritise the achievement of real economy emissions reductions within the sectors and companies in which we invest.
- Use the reporting provided by our Investment Adviser to help us assess progress towards our targets.

⁷ <https://www.ipcc.ch/reports/>

- Whilst we expect our portfolio to trend towards our 50% emissions reduction target by 2030, we'll take the decisions necessary to align the portfolio consistent with our net zero emissions by 2050 goal.

5.4.3. The method we used to measure performance against our target

In order to help us track progress against our target of net zero greenhouse gas emissions by 2050, our Investment Adviser will, at least annually, report to us:

- Our portfolios' absolute GHG emissions.
- Our portfolios' carbon footprint (emissions intensity).

6. Appendix

Definitions of Net Zero Alignment under IIGCC⁸ guidelines

Achieving Net Zero: companies that have current emissions intensity performance at, or close to, net zero emissions with an investment plan or business model expected to continue to achieve that goal over time.

Aligned to Net Zero: Meeting criteria 1-6 (or 2, 3 and 4 for lower impact companies*). And adequate performance over time in relation to criterion 3, in line with targets set.

Aligning to Net Zero:

- Have set a short or medium-term target (criteria 2);
- Disclosure of scope 1, 2 and material scope 3 emissions (criteria 4);
- A plan relating to how the company will achieve these targets (partial criteria 5).

Committed to Aligning: A company that has complied with criteria 1 by setting a clear goal to achieve net zero emissions by 2050.

Not Aligned to Net Zero: All other companies

*Higher impact sectors are a specified set of sectors and subindustries responsible for the largest portion of GHG emissions.

Criteria for Assessing the Alignment

Assess higher impact companies against the following high level current and forward-looking alignment criteria that constitute a Net Zero Transition Plan:

1. **Ambition:** A long term 2050 goal consistent with achieving global net zero.
2. **Targets:** Short- and medium-term (5 to 10 year) emissions reduction target (scope 1, 2 and material scope 3).
3. **Emissions performance:** Current emissions intensity performance (scope 1, 2 and material scope 3) relative to targets.
4. **Disclosure:** Disclosure of scope 1, 2 and material scope 3 emissions.
5. **Decarbonisation Strategy:** A quantified plan setting out the measures that will be deployed to deliver GHG targets, proportions of revenues that are green and where relevant increases in green revenues.
6. **Capital Allocation Alignment:** A clear demonstration that the capital expenditures of the company are consistent with achieve net zero emissions by 2050.

Additional criteria that are part of a company's overall net zero transition plan that should be incorporated where feasible, as data availability increases, include:

7. **Climate Policy Engagement:** The company has a Paris-Agreement-aligned climate lobbying position and demonstrates alignment of its direct and indirect lobbying activities.
8. **Climate Governance:** Clear oversight of net zero transition planning and executive remuneration linked to delivering targets and transition.
9. **Just Transition:** The company considers the impacts from transitioning to a lower carbon business model on its workers and communities.

⁸ <https://www.parisalignedinvestment.org/>

10. Climate risk and accounts: The company provides disclosures on risks associated with the transition through TCFD Reporting and incorporates such risks into its financial accounts.