BSS Group Pension Scheme

Annual Task Force on Climate-Related Financial Disclosures (“TCFD”) Report

Reporting to 30 September 2023

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Disclaimer

This document contains the opinions and views of the BSS Group Pension Scheme ("the Trustee").

The Trustee is a distinct entity from Travis Perkins plc (the "Sponsor") and the Trustee acknowledges the existence of the Sponsor's opinions and views on the same topics.

01 **Executive Summary**

The purpose of this report is to meet the TCFD reporting requirements, building on the policies set by the Trustee to monitor and address climate-related risks within the Scheme.

As this is the first report produced under the requirements, we expect the content of subsequent TCFD reports will evolve in line with the availability of climate-related data and a growing momentum from companies as they transition their businesses to sustainable models. Currently, certain limitations exist due to data availability, which implies that any conclusions drawn from the analysis should be approached with caution. Nevertheless, we are confidence that the analysis provided effectively identifies areas warranting further focus and engagement in future reporting periods.

The below summarises the information and conclusions outlined in the report:

Strategy

- The Trustee has undertaken scenario analysis to gauge the Scheme's resilience to the risks associated with climate change.
- Of the four scenarios included in the analysis, the Disorderly 1.5°C scenario results in the largest impact to the funding level, with a net impact of c.10.3%, where assumed to be 100% hedged against changes in interest rates and inflation expectations.
- All scenarios are rated Amber overall. Whilst the estimated impact is less adverse for the remaining three scenarios, the data available for the illiquid assets is limited. As these assets are expected to be most susceptible to 'physical' and 'transition' risks, the Trustee believes that these scenarios would demonstrate a more significant impact if full data coverage was available across these assets.
- The Trustee, with the help of the Investment Advisor, will engage with the illiquid asset managers to seek to improve the data coverage and better understand the climate risks associated with the funds.

Metrics

- The Trustee has outlined the absolute emission, carbon intensity and forward-looking measures of the portfolio to assess the climate-related impact of the scheme's assets, including data coverage.
- The Scheme's total absolute emissions equates to c.4,036 tonnes. However, the data available for the illiquid assets is limited, with approximately 15% data coverage of the M&G Illiquid Opportunities Fund and no data available for the Insight Secured Finance or Ares Secure Income funds.
- The illiquid assets are expected to produce the highest carbon emissions if the data was available. This is demonstrated though the carbon intensity measure where the M&G fund has the highest carbon intensity despite the lower data coverage compared to the Buy & Maintain Credit Funds.
- Given the materiality of this data limitation, the Trustee will focus on engaging with the Investment Managers to improve data coverage amongst the illiquid assets. This will aid future decision making as the quality of data improves.
- The data quality is notably higher for the Buy & Maintain Credit assets. Across the forward-looking measures, both funds exhibit an implied temperature rise of 2°C or lower, aligned with the Paris Agreement.

Targets

- The Scheme has set a net zero target and an interim target to reduce the WACI by 30% by 2030.
- The Trustee recognises that in practice, total reported carbon emissions is expected to increase in the short term as data coverage improves. As such, the Trustee will continue to monitor the Scheme's climate characteristics and engage with the Investment Managers to understand how the position is expected to improve over the longer term. However, no investment strategy changes are expected to be undertaken at present to reduce portfolio emissions.

02 **Governance**

This section outlines the governance framework and policies set by the Trustee to meet the requirements of the TCFD.

Overall Governance Framework

> Trustee Board: The overall Environmental, Social and Governance ("ESG") and climate change policies detailed in the Statement of Investment Principles are set by the Trustee. The Trustee takes responsibility for staying informed of how climate change related matters and ESG considerations impact the Scheme and the Sponsor.

> Investment Managers: Investment Managers appointed by the Trustee are required to demonstrate strong capabilities in managing ESG and climate-related risks as well as supporting the Trustee in reporting against TCFD.

> Investment Advisors: XPS Investment Limited (the "Investment Advisor") is responsible for ensuring the Trustee's policy, and requirements related to climate change, are implemented effectively and that the Trustee is well informed on relevant matters and developments in approaches to managing and measuring ESG and climate change related risks.

> Actuarial Advisors: Hymans Robertson LLP (the "Scheme Actuary") is responsible for keeping the Trustee informed of how climate change related matters and ESG considerations impact the liabilities.

> Legal Advisors: Gowling WLG (UK) LLP (the "Legal Advisor") is responsible for ensuring the Trustee's policies and actions are aligned to the requirements related to climate change.

Given the Trustee's reliance on the Investment Advisors and Actuarial advisors for advice in relation to ESG and climate change issues, it is important that both are sufficiently skilled. The Trustee is comfortable that this is the case based on ongoing assessments made in relation to the quality of training, advice and communications provided on such topics. In particular, the Trustee has reviewed the credentials of the Investment Advisors against the Climate Change credentials template created by the Investment Consultant Sustainability Working Group ("ICSWG").

Investment beliefs related to climate change

The Trustee considers climate change to be a significant long-term financial and systemic risk that if not managed appropriately, has the potential to adversely affect the value of the Scheme's investments.

Further details of the Trustee's beliefs are contained in the Scheme's SIP. The Scheme's SIP will be formally reviewed at least every three years to ensure it remains appropriate and will be informally reviewed on a more frequent basis (including following any changes to the Scheme's investment strategy).

Climate-related requirements in manager selection, review, and monitoring

The decision whether to retain or appoint a new Investment Manager is with the Trustee. The Trustee considers the Investment Advisor's manager research ratings as part of the decision-making process which explicitly considers climate change within manager ratings and recommendations. This policy is detailed further in the SIP.

Day-to-day Trustee operations

In discharging its responsibilities, the Trustee will remain mindful of the impact of their own operations on the environment. This includes, but is not limited to, the frequency and physical location of Trustee meetings and minimising unnecessary use of paper and other resources. The Trustee also considers the extent to which environmental considerations are a priority for their providers and advisors which is reviewed periodically and as part of new appointments.

Monitoring climate risk

The Trustee will monitor the below aspects related to climate change.

Table 1- Monitoring climate risks

Reporting content	Frequency	Responsibility for reporting
Specific climate-related metrics (see Metrics and Targets Section)	Annually	Investment Managers / Investment Advisor
Scenario analysis	Triennially*	Investment Managers / Investment Advisor & Scheme Actuary
Progress of Investment Managers towards the Scheme's climate target	Annually	Investment Managers / Investment Advisor
Assessment of the Investment Managers' ESG and climate-related credentials from the Investment Advisor	Annually	Investment Advisor
Adherence of the Investment Managers to any exclusion list in place	As required	Investment Managers / Investment Advisor
Review of notable stewardship activity related to climate risk within the portfolio	As required	Investment Managers

* The Trustee will review the results of any prior scenario analysis annually and determine if they believe annual analysis is warranted, noting the requirement under TCFD is to undertake scenario analysis at a minimum every 3 years.

The Trustee is satisfied that it has monitored each of the above items throughout the year as required. Examples of actions taken during the Scheme's reporting year are provided within this report.

Climate change as an agenda item within Trustee meetings

The Trustee has incorporated climate-related agenda items into Trustee meetings to enable them to actively discuss climate risk and opportunities on an ongoing basis. Topics of discussion may include:

- Relevant updates from the advisers and Investment Managers regarding the investment portfolio, strategic allocation and/or relevant developments within the industry.
- Input from the Sponsor where appropriate.
- TCFD Metric discussions and industry standards.
- Ensure the Investment Managers are keeping within their mandate and methodology.

Ongoing training needs

The Trustee is required to maintain sufficient knowledge and understanding of climate-related risks. Given the fast evolution and innovation within the industry, the Trustee will hold a training session on climate-related issues alongside ESG issues on an annual basis.

During the reporting period, the Trustee has received ESG-related training from the Investment Advisor, outlining the importance and need for ESG considerations in the Scheme's strategy. The Trustee has also engaged with the Investment Advisor to aid in preparing the TCFD Report.

03 **Strategy**

This section outlines how the Trustee will identify climate-related risks and details the different climate-related scenarios the Trustee will use when assessing the Scheme's resilience to the risks associated with climate change.

Time horizons and overarching risks identified

The Trustee has defined the time horizons as below and identified relevant climate-related risks and opportunities which will be managed as far as practicable via the overall framework. The Scheme is closed to future accrual and has a short to medium-term time horizon to buy-out, with buy-out expected in less than 10 years.

Table 2 - Rationale for time horizons

Time horizon	Years	Rationale
Short-term	0-5 years	This horizon allows for sufficient time for climate-related decisions to be made, implemented and monitored.
Medium-term	5-10 years	It is widely agreed that a 50% reduction in global emissions by 2030 is required in order not to exceed the available global carbon budget in order to deliver the Paris Agreement. The Trustee monitors this horizon to reflect this need and the fact many companies and countries have set 'interim' 2030 targets.
Long-term	10+ years	The Scheme is closed to future accrual. The long-term horizon aligns to the long-term global net zero goals and the objectives of the Paris Agreement.

Climate-related risks identified

The Trustee appreciates that climate change could pose a risk to the Scheme's funding level. The relative risks are summarised in Table 9.

The key risks arising as a result of climate change are:

• **Transition risk**: refers to the risk (and opportunities) presented from the realignment of society to a decarbonised world which is climate-resilient over the coming years. Factors causing such changes include policy and regulation, behavioural changes of society and the adoption of alternative energy solutions.

• **Physical risk**: refers to physical impacts of climate change on supply chains and physical assets and includes both the long-term shifts in climate patterns and the impact of acute weather events. These events have a physical impact on societies and the potential to impact economies.

Table 3 - Risks

Time horizon		Risks and opportunities
Short term	0-5 years	Changes in consumer and corporate behaviour, driven by policy and technological change i.e., transition risk highly prevalent over the short and medium term.

Medium term	5-10 years	This can have impacts on asset prices/stock price movements. Companies which adapt well can take advantage of this fundamental shift in the economy. In the very short-term these risks are only likely to materialise if there is sudden and robust government intervention. Physical risk exists but the most severe and frequent weather events are likely to materialise over longer time frames.
Long term	10+ years	In the long-term physical risks may be more prevalent depending on policy response - a limited policy response is expected to lead to higher warming outcomes and physical risks dominating. Physical damage increases on real assets and resource availability may be disrupted from phenomena such as sea level rises and more frequent severe weather events. There will be knock-on effects on input costs and supply chains. Transition risk for many sectors as regulations and policies may come into force and consumer preferences change.

Impact on investment strategy

The Trustee will assess an Investment Manager's ability to analyse climate change related risks and opportunities as a key feature in its due diligence when appointing new managers for the Scheme's assets. Therefore, the Investment Managers selected are those which demonstrate clear integration of climate change risk analysis, alongside other fundamental and technical risk analysis techniques. As such, climate change is required to be a key consideration when the Investment Managers make investment related decisions.

Investment Managers will be invited to periodically present to the Trustee, allowing the Trustee to discuss how it may be actively screening out and engaging with investee companies which currently fall short of the required ESG credentials. This will also provide the opportunity for the Trustee to discuss how Investment Managers are managing climate-related risks overall.

Impact of liability-related risks

The Trustee has set out initial observations on the risks identified in the section above.

A. Financial risks

Gilt yields and future price inflation are financial risks in relation to the liabilities. The Trustee notes that both of these risks are hedged (96% on the Gilts + 0.25% funding basis) as part of the investment strategy and hence any changes should have a minimal net impact on the funding position. The impact of these risks will be clearer within the scenario analysis.

B. Non-financial risks - Life Expectancy

Given the level of hedging in the Scheme, an unexpected change in life expectancy is likely to be the key risk relating to climate change. The key points to note regarding life expectancy are:

- Changes tend to happen gradually over an extended period and are rarely significant one-off events.
- Over the short and medium term (as defined above) it is likely that there will not be significant changes in life expectancy due to climate change and changes will not be easy to distinguish from other factors affecting life expectancy.
- Over the longer term there are a range of scenarios that could impact life expectancy that could be considered.

Impact on covenant

The Trustee recognises the potential for the climate-related risks identified to affect the Sponsor as well as the invested assets, and therefore as part of the Trustee's ongoing integrated risk management, they will discuss this subject with the Sponsor to understand the potential impact of climate change on its operations.

Resilience of investment strategy

The Trustee will be able to take a view on the resilience of the Scheme's current strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

The Scheme's assets are to be managed in a manner whereby the Investment Managers integrate climate change and broader ESG issues into the management of the Scheme's assets. This should enhance the resilience to climate-related risk events in the short, medium, and long-term.

The resilience of the Scheme's strategy to climate change will be described in more depth in the scenario analysis section.

Scenario Analysis

The Trustee has undertaken scenario modelling to form a view on the resilience of the Scheme's current strategy and the table below sets out the climate scenarios considered.

The scenarios represent four of the six designed by the Network for Greening the Financial System ("NGFS") which provide a good overview of possible outcomes. For added context, the NGFS scenarios explore the impacts of climate change and climate policy with the aim of providing a common reference framework.

Table 4 - Climate-related scenarios

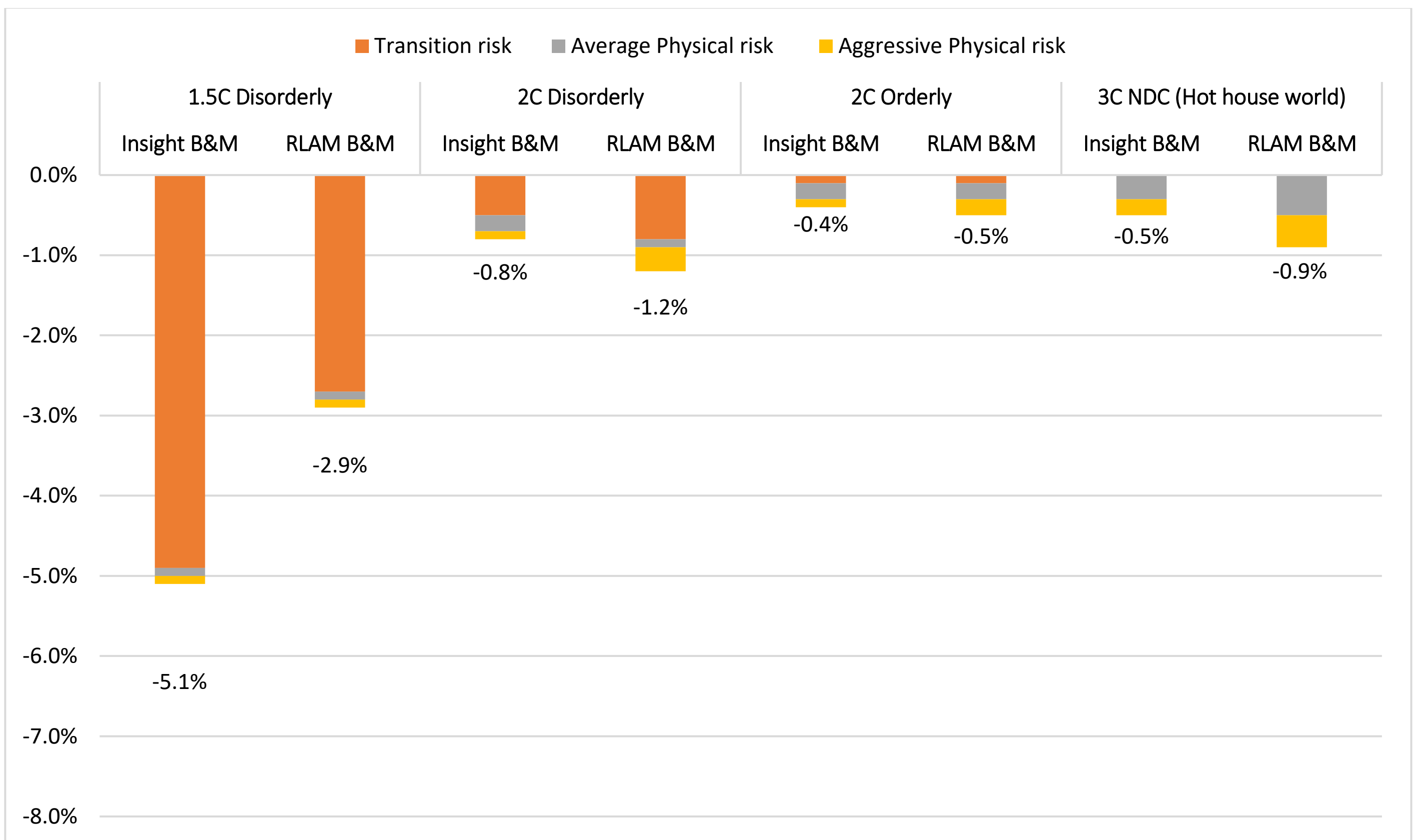
Scenario	Description
Disorderly 1.5°C **(Divergent Net Zero)**	Reaches net zero around 2050 but with greater costs due to divergent policies introduced across sectors (leading to varying carbon prices across sectors) resulting in a quicker phase out of oil use. This scenario is also known as "Divergent Net Zero." This leads to high transition risk but the worst physical damage and risks from climate change are averted.
Disorderly 2.0°C **(Delayed transition)**	Assumes annual emissions do not decrease until 2030. As a result, there is higher transition risk (when compared to the orderly 2°C scenario) due to policies being delayed or divergent across countries and sectors. For example, carbon prices are typically higher for a given temperature outcome. Strong policies are needed to limit warming to below 2°C. This scenario is also known as "Delayed Transition."
Orderly 2.0°C **(Below 2°C)**	As above, but more gradual increase in the stringency of climate policies, giving a 67% chance of limiting global warming to below 2°C.
Hot House World 3.0°C **(Nationally Determined Contributions)**	Assumes that some climate policies are implemented in some jurisdictions, but globally efforts are insufficient to halt significant global warming. Physical risks are most significant in this scenario.

The analysis illustrates the Climate Value at Risk ("CVaR") for the Fund assets under each scenario. CVaR, a climate scenario modelling tool, provides a forward-looking and return-based valuation assessment to measure climate-related risks and opportunities in an investment portfolio. It provides insights into the potential climate-stressed market valuation of mandates and their downside risk and can be interpreted as the percentage by which a mandate's value may depreciate (or appreciate) if climate risks are fully priced in today.

CVaR is a function of both:

- Transition risks (downside risk arising from regulatory and policy changes, and opportunities for companies adapting to the modelled scenario); and
- Physical risks (how trends in extreme cold, extreme heat, extreme precipitation, heavy snowfall, extreme wind, coastal flooding, fluvial flooding, tropical cyclones, river flow and wildfires continue along the modelled scenario). Within Physical risk, there are a range of possible cost outcomes under each scenario, and the charts below illustrate both the average (expected or 50th percentile outcome) cost impact, and an 'aggressive' (worse case) cost impact. The 'aggressive' physical element below represents the 95th percentile outcome.

Chart 1-Climate Value at Risk



Notes:

1. Insight and RLAM data from MSCI Tool using holdings provided by managers at 30 September 2023.
2. NDC = Nationally Determined Contributions, representing countries' self-defined national climate pledges under the Paris Agreement.

The chart shows the CVaR figures for both Buy and Maintain funds. Unfortunately, data was not readily available for all the assets listed in Table 15 due to either limited manager capabilities or the nature of assets, where most frameworks do not map to alternative credit or infrastructure investments. The Trustee is expecting this to improve over time.

A Disorderly 1.5°C scenario would present the greatest risk to the Scheme's assets due to the significant transition risk embedded in this scenario. If this scenario played out, these risks are expected to emerge in the short to medium term.

The narrative around the 2°C scenarios (Orderly and Disorderly) and Hot House World are more aligned to the medium and long-term timeframes defined by the Trustee, but expected to have a less material overall impact on funding.

Whilst the analysis indicates that a Hot House World scenario would result in a less material funding impact, largely as a result of the limited impact of transition risk under this scenario, the Trustee expects that this impact is lessened by the limited data available for the illiquid assets. These assets are expected to be the most susceptible to physical risk due to the real assets that underpin the debt investments. Therefore, the materiality of physical risks on the portfolio is expected to be significantly higher where the data becomes available. This is expected to increase the forecasted impact of the 2°C scenarios (Orderly and Disorderly) and Hot House World scenario.

The Trustee notes the limitations of scenario modelling and the fact it is underpinned by a series of assumptions which may or may not hold in practice, noting in particular that the investment outcomes in a Failed Transition (Hot House World), where physical risks associated with climate change are expected to be high, are hard to estimate. However, the Trustee is comfortable that the modelling provides a helpful comparison of the resilience of the Scheme in plausible future outcomes and that it serves the purpose of helping the Trustee to manage climate-related risks.

Resilience to liability-related risks

This section considers the impact of interest rates, future price inflation and life expectancy when considering how liabilities might be impacted under the various climate scenarios. The liabilities have been assessed on the Scheme's current Technical Provisions basis and it is assumed that other than refinements to longevity assumptions, this basis would not change. In reality, the basis may be strengthened or weakened in response to changes in anticipated levels of investment returns/risks and the strength of sponsor covenant.

Financial stresses

The NGFS scenarios described above have been used for the financial analysis. For each of these scenarios the Scheme Actuary has used publicly available scenario analysis data from NGFS on interest rates and price inflation. The data taken from NGFS was in the form of interest rate and inflation curves out to 2050, including baseline rates and absolute differences to the rates under each of the NGFS scenarios. This information has then been used to determine single equivalent figures for interest rates and inflation under each of the scenarios. These rates have then been used to determine stresses to apply under each of the scenarios, which have been applied to the Scheme's liabilities as at 30 September 2023. For the purposes of this analysis, the interest rate stresses have been applied to the Scheme's' discount rate and the inflation stresses have been applied to the Scheme's RPI and CPI assumptions.

As shown in the tables below, the inflation stresses have a relatively modest impact on the Scheme's liabilities. The interest rate stresses are more variable, with the Net Zero 2050 scenario having the largest impact on liabilities.

Table 5 - Interest rate and inflation scenario modelling results

NGFS scenario	Liabilities stressed against inflation (£m)	Liabilities stressed against interest rates (£m)
Base case (unstressed liabilities)	223	223
Disorderly 1.5°C (Net Zero 2050)	224 0.4%	198 (11.2%)
Disorderly 2.0°C (Delayed transition)	225 0.9%	219 (1.8%)

Orderly 2.0°C (Below 2°C)	224 0.4%	218 (2.2%)
Hot House World 3.0°C (Nationally Determined Contributions)	224 0.4%	217 (2.7%)

Life expectancy stresses

Life expectancy stresses have been applied based on three alternative climate scenarios developed by Club Vita LLP ("Club Vita") as the NGFS do not publish data relating to life expectancies. Club Vita's "Hot and Bothered" scenarios describe a set of three climate scenarios and for each scenario it provides cohort life expectancy stresses for 'typical' members. A summary of the three scenarios considered by Club Vita is set out below.

Table 6 - Club Vita scenarios

Club Vita scenario	High level description
Head in the sand	Considers a range of disastrous outcomes resulting from lack of response to resource and environmental risk, including global crop failures, influx of disease from warmer climates, no progress on cancer treatments and an upward trend in cardiovascular disease. This scenario assumes mortality rates will rise in the future and as it is an extreme scenario, this will happen very soon.
Challenging times	A less extreme outcome than Head in the sand, where some adaptations are made in response to resource and environmental risk, but there is still a struggle to adapt quickly enough. Scenario includes availability of oil is constrained, possible increasing fuel prices and constraints on NHS funding. Increased cost of imported food has an impact on healthy diets. Scenario assumes a sizeable proportion of lower income groups are unable to afford their basic needs, and this leads to life expectancy ceasing to improve.
Green revolution	Widespread calls for change and rapid technological advances lead to a positive adaption to climate change, leading to improved longevity. A combination of fuel scarcity and environmental awareness leads people to ditch cars in favour of walking leading to better air quality. There is less reliance on processed food and red meat due to better health education and a general interest in reducing greenhouse gases. Preparation for global warming has led to better protection against extreme temperatures leading to lower cold and heat-related deaths.

The Scheme Actuary has taken the scenarios described in Club Vita's 2018 analysis and adjusted the cohort life expectancy stresses published in that paper for an updated date of calculation to reflect the further passage of time (i.e. bringing them forward 6 years). The approximate approach allows for an updated date of calculation only with no updates to underlying data or assumptions. The Trustee is comfortable this is a reasonable approach, as the Club Vita scenarios are long-term stresses and the impact of changes in short-term expectations of improvement are likely to be second order. In our view, the resulting impacts appear plausible given the original Club Vita projections (on which the Scheme Actuary have relied).

The impacts shown reflect the change in cohort life expectancy from age 65, based on members currently aged 50 and 65, and are shown relative to future improvements based on the core CMI 2016 model, with a long-term rate of 1.5% p.a., applied to observed mortality rates in the Club Vita data set up to 2015. No allowance has been made for subsequent experience, not least the impact of COVID-19.

The updated life expectancy implications of the three scenarios are as follows:

Table 7 - Life expectancy impact details

Impact on cohort life expectancy from age 65 (years)	Male			Female		
	Head in the sand	Challenging times	Green revolution	Head in the sand	Challenging times	Green revolution
Currently age 50	(4.9)	(1.7)	+2.2	(5.2)	(2.2)	+1.9
Currently age 65	(1.9)	(0.6)	+1.3	(2.3)	(1.0)	+1.1

To generate stresses to apply to the Scheme's' liabilities, the Scheme Actuary has calibrated loadings ('scaling factors') to the mortality tables used in the Scheme's Technical Provisions basis that generate the same life expectancy impacts as shown in the table above. The Scheme Actuary has then applied these to the liabilities to re-measure them under each scenario.

Table 8 - Life expectancy scenario modelling results

Club Vita scenario	Liabilities stressed against life expectancy (£m)
Base case (unstressed liabilities)	223
Challenging times	214 (4.0%)
Green revolution	236 6.1%
Head in the sand	198 (11.4%)

The Head in the sand scenario results in the largest impact on the Scheme's liabilities, which as described above is the most extreme climate scenario modelled by Club Vita.

The Trustee does not currently attempt to hedge against future changes in life expectancy, and this is not easy to achieve without either using a longevity hedge or a buy-in policy. The analysis shows that the Head in the sand and Challenging times scenarios result in a lower life expectancy and therefore improve the overall financial position of the Scheme, whereas a Green revolution increases life expectancy increasing the present value of the liabilities. To manage longevity risk the Trustee sets a prudent mortality assumption as part of the Actuarial Valuation process and reviews it regularly.

Resilience to covenant-related risks

The agreed funding strategy provides considerable protection against a reduction in covenant. The Scheme's investment strategy has been de-risked and is contractual asset based, increasing the certainty and predictability of investment returns. A low-risk investment strategy and strong funding basis does not guarantee that members will be completely protected in the situation that the Sponsor becomes insolvent. The Trustee undertakes periodic reviews of the covenant strength, including as part of the triennial Actuarial Valuation.

Climate change can have significant implications for the strength of sponsoring employers. The Scheme is currently positioned with a funding surplus and the sponsor is not currently paying deficit repair contributions. As part of preparing the Scheme's TCFD disclosures, the Trustee considered the scenarios prepared by the Investment Advisor.

Travis Perkins Plc's corporate responsibility framework outlines its high-priority environmental and social sustainability topics. Climate is a high-priority sustainability topic, and the Group is supportive of decarbonization, adaptation and resilience. Within its TCFD disclosures, seven climate-related risks and opportunities were evaluated by the Group over the short term (1-5 years), medium-term (5-15 years) and long-term (15-30 years) time horizon, the most material of which being relevant to the short- and medium-term periods and relate to transitional risks rather than physical risks. The Group has conducted

both qualitative scenario analysis and a quantitative financial impact assessment to understand the impact of climate-related risks and opportunities on its businesses, strategy, and financial planning.

Conclusion

Climate-related risks and opportunities are a material consideration which, if left unmanaged, could have a detrimental impact on the covenant of the Scheme's sponsoring employer, albeit they are considered to be low. The Trustee therefore believes that it is important for these risks to be monitored on an ongoing basis. Based on the analysis published by Travis Perkins Plc, the Scheme's funding positions and there being no need for deficit repair contributions, the Trustee expects the impact of climate-related risks on the covenant to be low. The Trustee believes it is important for these risks to be monitored on an ongoing basis and is comfortable that Travis Perkins Plc is taking reasonable steps to address these risks. The Trustee will continue to engage with the Group to ensure that covenant risks continue to be mitigated appropriately going forward.

Overall assessment of resilience of the Scheme's funding position

The Trustee has provided a summary of the scenario analysis findings on both assets and liabilities. It should be noted that the Trustee has provided the closest match within the scenarios used for both assets and liabilities given they differ slightly.

Table 9 - Summarised scenario analysis

NGFS Scenario	Approximate mapping to Club Vita Scenarios	Relative risk assessment to Scheme's funding position	Assets stressed (combined % change in market value where available)	Liabilities stressed against inflation (% change)	Liabilities stressed against interest rates (% change)	Liabilities stressed against life expectancy (% change)
Disorderly 1.5°C	Green revolution	Amber	(4.2%)	0.4%	(11.2%)	6.1%
Disorderly 2.0°C	Challenging times	Amber	(1.0%)	0.9%	(1.8%)	(4.0%)
Orderly 2.0°C	-	Amber	(0.4%)	0.4%	(2.2%)	-
Hot House World 3.0°C	Head in the sand	Amber	(0.7%)	0.4%	(2.7%)	(11.4%)

Notes: Asset stress calculated as weighted average for funds where scenario modelling is available, which combined represent 49.8% of the total assets. Figures quoted in Green represent a funding gain. Figures quoted in Red represent a funding loss.

As the asset and liability stress tests are underpinned by different sets of assumptions, it is difficult to measure the overall net impact of climate related risks on the funding level. Here, we have shown an overall estimate where we believe the scenarios can be broadly aligned and we recognise the limitations of this approach.

As the Scheme hedges 100% of its liabilities against inflation and interest risk, an argument can be made that the interest rate and inflation liability impact shown in the table above is mitigated through the hedging assets. However, in practice, there are limitations with liability hedging, where risks could still materialise on the liabilities side that cannot be captured in the hedge alone, therefore these risks may not be entirely removed from the Scheme. As such we have shown two measures for each scenario, the first includes the full impact of interest rate and inflation risk and the second assumes that the interest rate and inflation risk is entirely removed.

The total net impact to the funding position with and without 100% hedging under each scenario is summarised below:

Disorderly 1.5°C

Total net impact to funding position = 0.5%

Total net impact to funding position (assuming 100% hedging) = (10.3%)

Disorderly 2.0ºC

Total net impact to funding position = 3.9%

Total net impact to funding position (assuming 100% hedging) = 3.0%

Orderly 2.0ºC

Total net impact to funding position = 1.4%

Total net impact to funding position (assuming 100% hedging) = (0.4%)

Hot House World 3.0ºC

Total net impact to funding position = 13.0%

Total net impact to funding position (assuming 100% hedging) = 10.7%

As both interest rates and inflation risks are hedged (96% on the Gilts + 0.25% funding basis) as part of the investment strategy, the Trustee expects that any changes to interest rates and long-term inflation within scenarios should have a minimal net impact on the funding position.

Based on the scenario analysis, a disorderly 1.5°C scenario would present the greatest risk to the Scheme's funding position as this is expected to have both a negative impact with respect to asset values and increase the present value of liabilities due to an increase in longevity. In the event that the liability hedging in place does not fully immunise the funding position from the impact of changes in interest rates and inflation expectations, the overall impact of this scenario is expected to be mitigated by a similar reduction in the present value of liabilities due to an increase in interest rates.

Whilst both the Disorderly and Orderly 2°C scenarios result in a broadly immaterial impact on the Scheme's funding position and the Hot House World scenario would lead to a positive impact on the Scheme's funding position, due to the lack of data coverage for the illiquid assets, our analysis does not reflect the full impact of physical and transition risk related to these holdings. As the private market assets may include investments in sectors such as infrastructure and property, the impact of physical risk may be more prominent. As such, the Trustee would expect the impact under these scenarios to be more pronounced if the data were fully available, therefore the Trustee has maintained these ratings at Amber for this year's report.

Trustee's conclusion

The Trustee recognises that the scenario which causes the biggest volatility to the Scheme's funding position is the Disorderly 1.5°C scenario. However, given that the Trustee is unable to draw direct conclusions from the scenario analysis due to the limitation of data from the illiquid assets, the Trustee, with the help of the Investment Advisor, will engage with both Insight and M&G to understand how these risks may impact the investment strategy over the short to medium term, as well as how the quality of data across these assets is expected to improve.

04 **Risk Management**

Processes to identify and assess the potential impact of climate-related risks/opportunities

The Trustee recognises the importance of identifying and assessing the potential impact of climate change within the Scheme's investments and have taken / agreed to the following key actions:

> Defined their investment beliefs related to climate change.

> Delegated the management of climate risk and opportunities (including stewardship of assets) to the Investment Managers. As such, responsibility for identifying and assessing climate-related risks has also been delegated to the Investment Managers.

> With assistance from the Investment Advisor, undertaken due diligence to consider the capabilities of the Investment Managers to integrate climate change and broader ESG issues into the management of the Scheme's assets.

> Added a periodic review of the integration of climate change by Investment Managers and carbon footprint of the portfolio to the Trustee's calendar which will be reported by the Investment Advisor, with managers able to provide rationale for any movement in observations.

> The review can highlight gaps in a manager's approach relative to expected market practice and we request Investment Advisors liaise with Investment Managers to drive improvements. During 2023, the focus was on engaging with the asset managers to improve the disclosure of information to help with this assessment.

> The Trustee will consult with the Sponsor in relation to the climate-related risks to establish the potential impact on the Sponsor, and therefore the potential impact on the Scheme.

> The Investment Advisor will undertake climate risk modelling and scenario testing in order to understand the risk exposure of the Scheme's assets to various climate scenarios at least triennially.

Processes to manage the potential impact of climate-related risks/opportunities

The Trustee recognises the importance of managing the potential impact of climate change within the Scheme's investments and has taken / agreed the following key actions:

> Set out a monitoring process which will include how the Investment Managers are assessing, managing, and mitigating climate risks including each fund's positioning in relation to the transition to a lower-carbon economy. This includes conducting scenario analysis to understand the resilience of each fund to various climate scenarios as far as practicable.

> Appointed managers who demonstrate robust stewardship and engagement with the underlying investments (recognising that active ownership is key to managing ongoing risks).

> The Trustee, with the help of the Investment Advisor, will engage with managers where activities or carbon performance are deemed to be lagging expectations.

The integration of processes for identifying, assessing, and managing climate-related risks into the Scheme's overall risk management

The Trustee recognises the importance of integrating the considerations which surround climate change within the Scheme's overall risk management and has taken / agreed the following key actions:

> Discussed investment beliefs related to climate change to gain clarity over the views of the Trustee and the necessary steps to move forward.

> Explicitly documented climate change as a risk within the Scheme's risk register and included detail on the steps taken to manage the risk.

> Climate change is considered alongside other risks in terms of invested assets and the impact on the Scheme's investment strategy. The Trustee view the development of roles and responsibilities as an ongoing process, as approaches to understanding and integrating climate-related risks and opportunities continue to evolve over time. The Trustee will consider whether the current delegations remain appropriate.

Examples of risk management from within the reporting year

The Trustee is in the process of reviewing the ESG and sustainability guidelines of the Buy & Maintain Credit assets with RLAM and Insight as at year end. The Investment Advisor has engaged with both managers, scheduling calls during the reporting period to discuss the latest developments and possible approaches on behalf of the Trustee.

Stewardship to manage climate-related risks

The Trustee recognises the importance of effective stewardship activities to enact change and manage risk. The Trustee has delegated all stewardship activity to the Investment Managers as they believe the managers are best placed to conduct stewardship given their expertise and access to company management. Where the Scheme invests in debt assets there are no voting rights to be exercised but the Trustee expects the managers to engage on material ESG and climate-related issues alongside other non-ESG related issues.

The Trustee asked the Investment Managers to provide examples of engagement activities undertaken during the year. Below are examples of engagement which shows the action taken from Investment Managers in relation to climate-related risks.

Table 10 - Engagement Example

Insight High Grade ABS Fund	
Company	Kensington
Issue/engagement undertaken:	Insight discussed the initiatives that Kensington currently have, including a recent AAA green ABS bond issuance which is used to fund the financing of A/B EPC rated properties. Kensington have launched a green mortgage product but take up rate has been slow so Insight discussed ways that they could improve structures in the RMBS market to address ESG, such as an environmental cash reserve, which could be used to provide borrowers in the pool very cheap financing solutions for energy upgrades. They are also in the process of creating a database of EPC and environmental data stats for each loan.
Outcome	Insight stated that they will continue to monitor their progress against initiatives.

Table 11 - Engagement Example

M&G Illiquid Credit Opportunities Fund	
Company	Specialist producer of biochemicals and charcoal via Pyrolysis of Beechwood.
Issue/engagement undertaken:	The production process of their products is highly efficient with minimal wastage. 95% of raw materials results in sellable products. The reactors operate under a temperature of 480-550°C which mean products have a higher carbon content which positions the business as a premium

	producer commanding higher pricing and margins vs competitors. Its gross profit margin has been c.26-30% over the past 2 years. Whilst the business seemed to be a differentiated player underpinned by longstanding customer relationships across recurring revenue streams, M&G declined the opportunity in October 2022 due to a number of reasons. (i) high levels of customer concentration (73% of revenues from top five); (ii) risk of substitution of premium priced consumer products in a recessionary environment, (iii) issues around environmental impact as the production process releases large levels of CO_2 and is extremely energy and water intensive. Although the firm is working towards carbon neutral production, M&G did not have sufficient clarity to provide comfort on the robustness of their approach.
Outcome	Declined investment opportunity.

Table 12 - Engagement Example

Insight Buy and Maintain Segregated Fund	
Company	Shell
Issue/engagement undertaken:	Insight discussed their objective from a previous engagement, which focused on Shell setting an absolute Scope 3 target. Shell revealed its management team questioned the merits of setting an absolute Scope 3 target given the ease of successfully achieving the threshold via divestments. Shell management do not want to achieve targets through selling assets as this will not change customer behaviour and it reduces Shell's ability to interact with customers and deliver lower-carbon fuel to meet customer needs. However, given the pressure from investors, the company is currently looking into setting an absolute Scope 3 emissions target.
Outcome	Insight highlighted to Shell that they support Scope 3 emissions targets as they are crucial to achieving net zero. Although Shell emphasised that the company was not changing any other targets, it was not able to provide any further details to show how it would meet its other targets or its 2050 net-zero goal. Shell confirmed that it is releasing an updated energy transition plan in 2024 which will have further details and Insight will examine this closely to renew the engagement.

05 **Metrics**

This section of the report details the metrics used by the Trustee to assess climate-related risks and opportunities in line with the strategy and risk management process outlined. Table 13 summarises the breakdown of the Scheme's defined benefit invested assets:

Table 13 - Asset allocation as at 30 September 2023

Fund	Allocation (%)
RLAM Buy & Maintain Credit Fund (Segregated)	20.3
Insight Buy & Maintain Credit Fund (Segregated)	29.5
Insight LDI (Segregated)	33.9
Insight High Grade ABS Fund	0.0
M&G Illiquid Credit Opportunities Fund II	7.2
Insight Secured Finance Fund	3.5
Ares Secured Income Fund	5.7

Notes: Figures subject to rounding.

The table below illustrates the coverage for various metrics outlined in the report across the DB mandates where available. There was no data available for the Insight High Grade ABS Fund and Ares Secured Income Fund given the nature of the assets. The data metrics coverage will vary, especially with emissions and intensity due to a lack of comparable methodologies for assessing the value of public and private companies. Given that the coverage for Insight Secured Finance is very low, no further data has been included for this mandate.

Table 14 - Data quality / Coverage

<table>
<tr><th colspan="2">Metrics</th><th>Insight Buy and Maintain (Segregated)</th><th>RLAM Buy and Maintain (Segregated)</th><th>M&G Illiquid Credit Opportunities II</th><th>Insight Secured Finance</th><th>Insight LDI (Segregated)</th></tr>
<tr><td>Carbon intensity and emissions</td><td rowspan="2">Scope 1 +2</td><td>67%</td><td>36%</td><td>15%</td><td>0.1%</td><td>100%</td></tr>
<tr><td>Weighted Average Carbon Intensity</td><td>76%</td><td>70%</td><td>15%</td><td>Not provided</td><td>100%</td></tr>
<tr><td>Carbon intensity and emissions</td><td rowspan="2">Scope 3</td><td>66%</td><td>35%</td><td>7%</td><td>Not provided</td><td>Not provided</td></tr>
<tr><td>Weighted Average Carbon Intensity</td><td>75%</td><td>65%</td><td>7%</td><td>Not provided</td><td>Not provided</td></tr>
</table>

Climate VaR and Implied Temperature Rise	64%	33%	Not provided	Not provided	Not provided

Notes:

1. M&G data sourced directly from Investment Manager as at 30 September 2023.
2. Insight and RLAM data using MSCI ESG screener Tool using holdings provided by Investment Managers as at 30 September 2023.

Carbon emissions

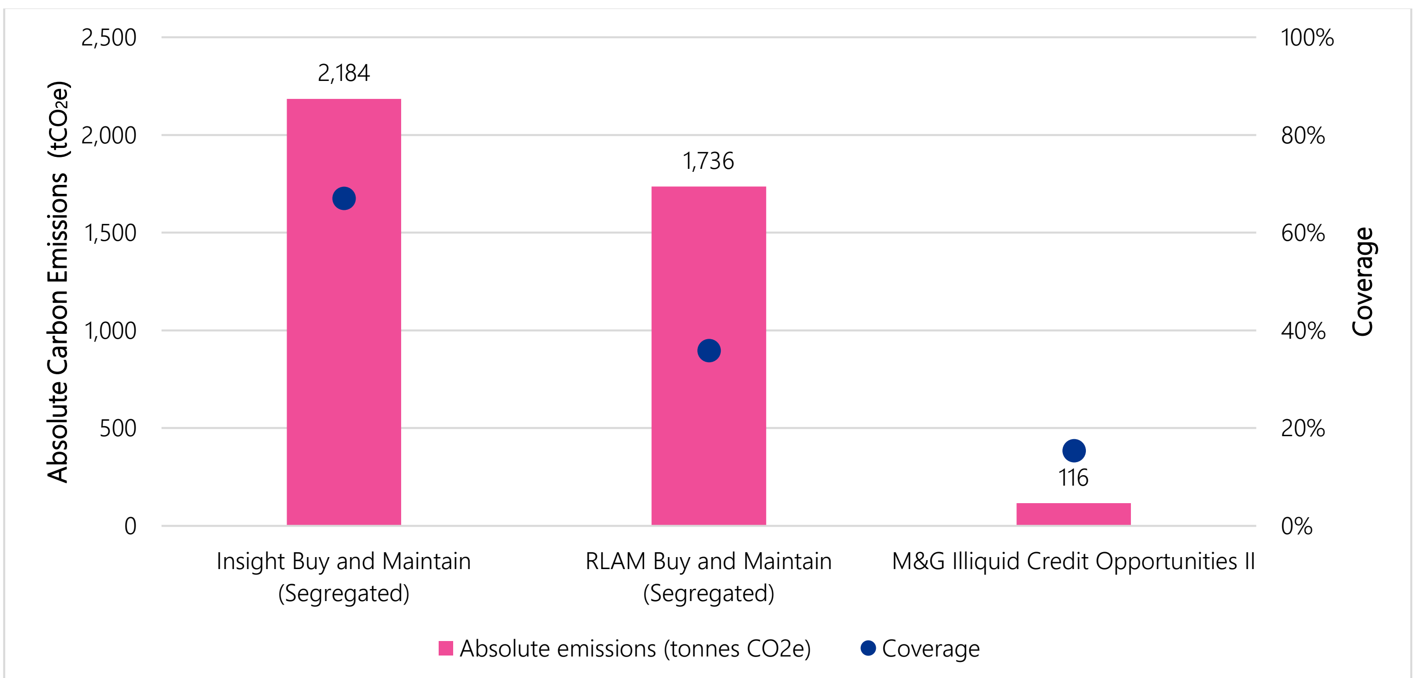
Charts 2 - 8 present the emissions metrics for each mandate, where available. These charts outline a snapshot of the emissions recorded as at 30 September 2023. Whilst these provide an understanding of the current climate characteristics, forward looking measures should also be considered to understand climate change mitigation plans and adaptation efforts. Scope 3 emissions have been included where available. The Trustee recognises the importance of this metric and remains confident that the availability of Scope 3 emissions data across the industry will improve.

Absolute emissions

Absolute carbon emissions represent the total tonnes of greenhouse gasses attributable to the Scheme holdings based on the ownership of the underlying assets.

The total absolute emissions for the Scheme based on available data equates to c.4,036 tonnes.

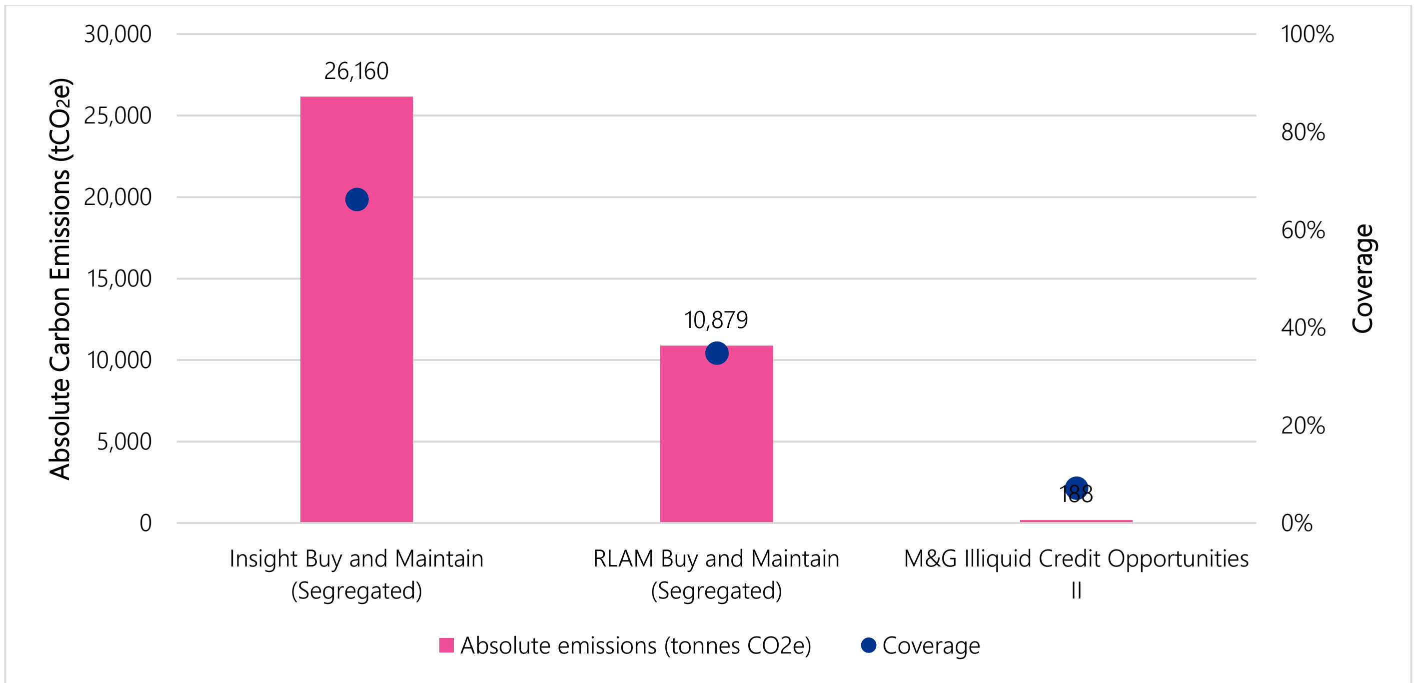
Chart 2 - Absolute emissions - Scope 1 and 2



Notes:

1. M&G data sourced directly from Investment Manager as at 30 September 2023.
2. Insight and RLAM data using MSCI ESG screener Tool using holdings provided by Investment Managers as at 30 September 2023.
3. Emissions data has been re-normalised to reflect 100% of the funds.

Chart 3 - Absolute emissions - Scope 3



Notes:

1. M&G data sourced directly from Investment Manager as at 30 September 2023.
2. Insight and RLAM data using MSCI ESG screener Tool using holdings provided by Investment Managers as at 30 September 2023.
3. Emissions data has been re-normalised to reflect 100% of the funds.

Whilst the Insight Buy & Maintain Credit fund contributes to the largest proportion of reported carbon emissions, this must also be considered in the context of investment size and data coverage. As this is also the largest investment made by the scheme and provides the greatest data coverage, the proportion of total emissions may be distorted.

The following intensity measures provide a more consistent basis for comparing the characteristics of each fund invested.

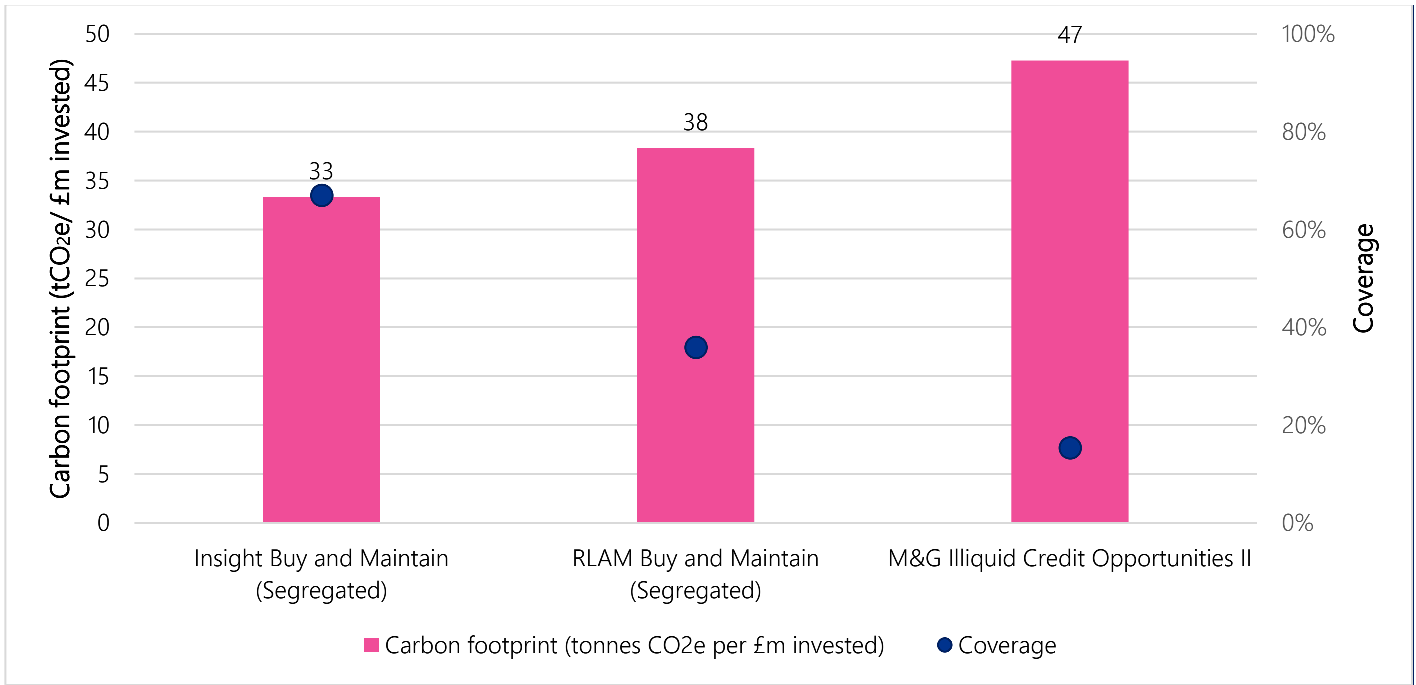
<u>Carbon footprint</u>

Carbon footprint is an intensity metric, showing the total carbon emissions normalised by the value of the investment. This is useful to show comparison of emissions intensity for portfolios of various sized holding values.

The chart shows that the M&G Illiquid Credit Opportunities II Fund (illiquid debt) is more carbon intensive than the corporate bond assets under Scope 1 and 2 emissions. Therefore the Trustee would reasonably expect these types of assets to be most susceptible to climate related risks. Whilst data coverage is low, the Trustee reasonably believes that similar comparisons can be drawn to the Insight Secured Finance and Ares Secure Income funds, and therefore would reasonably expect these funds to also exhibit a greater carbon intensity than the Buy & Maintain Credit assets.

For Scope 3 emissions on the other hand, the Insight Buy and Maintain Segregated Fund illustrates the highest carbon footprint with M&G being the lowest. However, the Trustee recognises that this may be distorted by the availability of data.

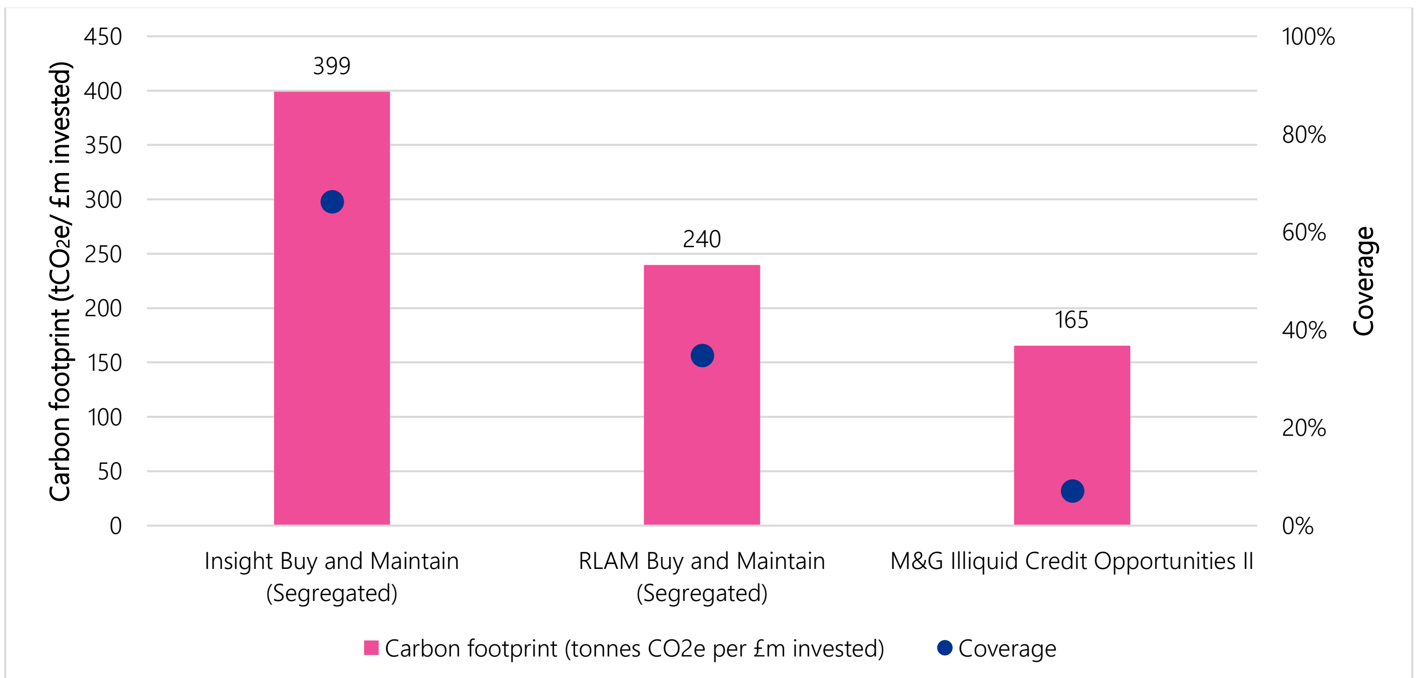
Chart 4- Carbon Footprint - Scope 1 and 2



Notes:

1. M&G data sourced directly from Investment Manager as at 30 September 2023.
2. Insight and RLAM data using MSCI ESG screener Tool using holdings provided by Investment Managers as at 30 September 2023.
3. Emissions data has been re-normalised to reflect 100% of the funds.

Chart 5 - Carbon footprint - Scope 3



Notes:

1. M&G data sourced directly from Investment Manager as at 30 September 2023.
2. Insight and RLAM data using MSCI ESG screener Tool using holdings provided by Investment Managers as at 30 September 2023.
3. Emissions data has been re-normalised to reflect 100% of the funds.

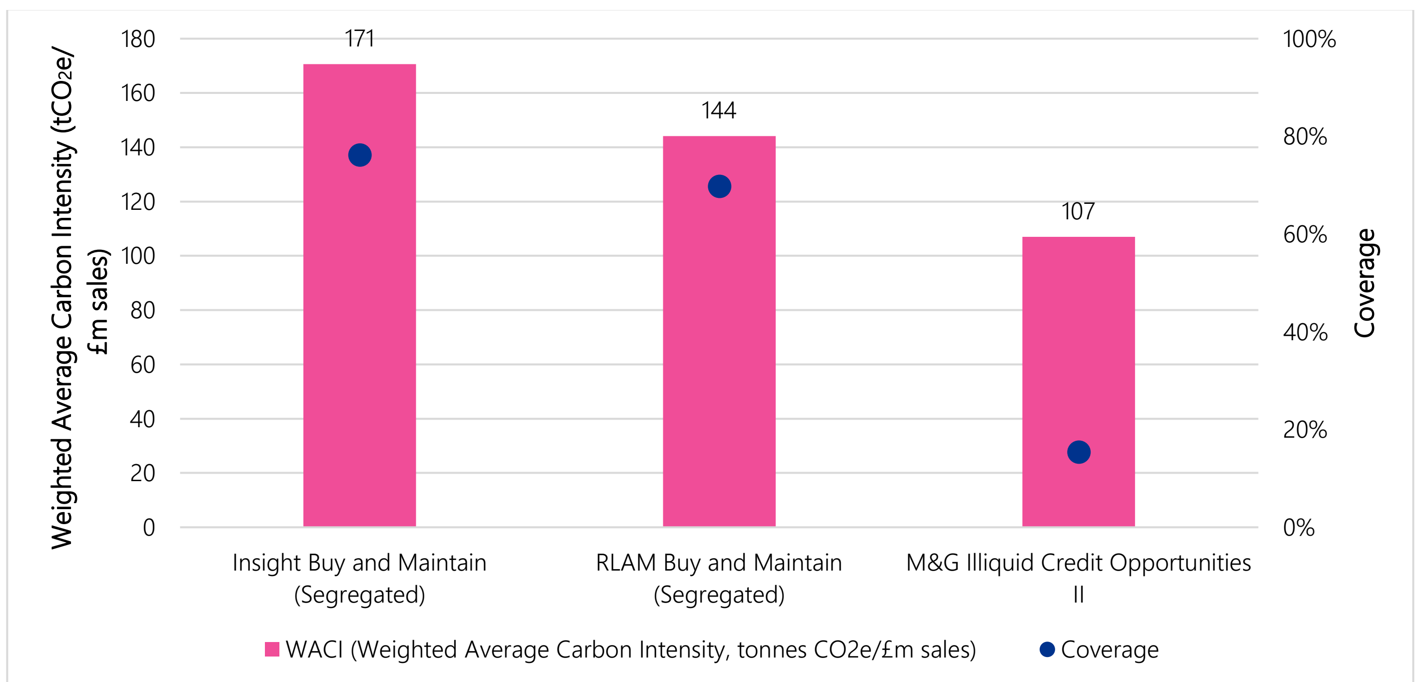
Weighted Average Carbon Intensity

Weighted Average Carbon Intensity (WACI) is another intensity measure. Two charts are shown below, the WACI of companies (listed equity and buy and maintain funds) is based on emissions normalised by revenue, whereas for government bonds WACI is emissions normalised by GDP - and hence are not comparable. The WACI illustrates how efficient the investments held are with respect to their carbon emissions.

As the Scheme has set an interim target of a net reduction in WACI of 30% by 2030, the Trustee will continue to monitor the progress of these funds across future reporting periods.

The Trustee's Investment Advisor has held discussions with the Buy & Maintain Credit Investment Managers to understand how these portfolios are expected to improve over time. The Investment Managers noted that it is possible to meaningfully reduce WACI over the short term by excluding more carbon intensive sectors such as Utilities. However, this could limit diversification and increase concentration towards sectors such as Financials, where scope 1 and 2 emissions are low, but scope 3 emissions could be much larger. Instead, the Investment Managers suggested that the portfolios focus on the forward-looking temperature alignment measures to understand how the portfolios may naturally evolve over time. The Trustee is comfortable with this approach but will continue to monitor the position and may take action where required.

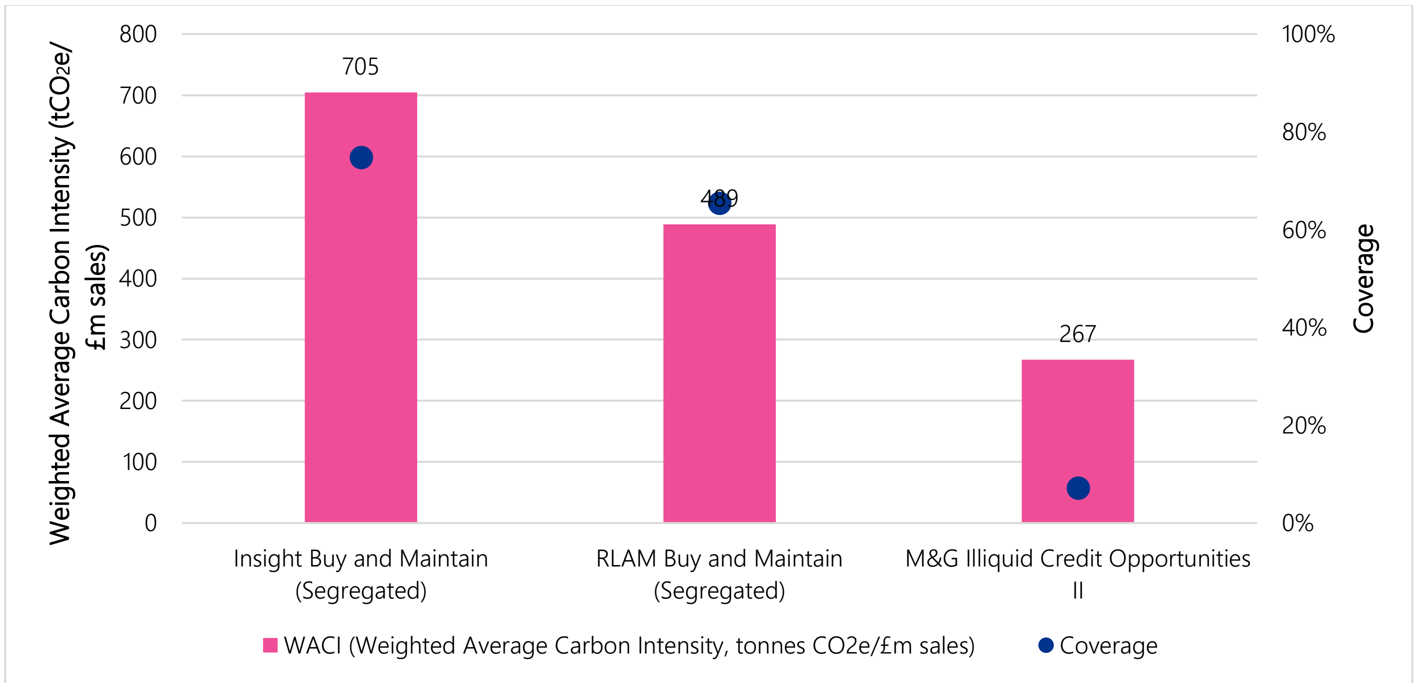
Chart 6 - Weighted Average Carbon Intensity (WACI) - Scope 1 and 2



Notes:

1. M&G data sourced directly from Investment Manager as at 30 September 2023.
2. Insight and RLAM data using MSCI ESG screener Tool using holdings provided by Investment Managers as at 30 September 2023.
3. Emissions data has been re-normalised to reflect 100% of the funds.

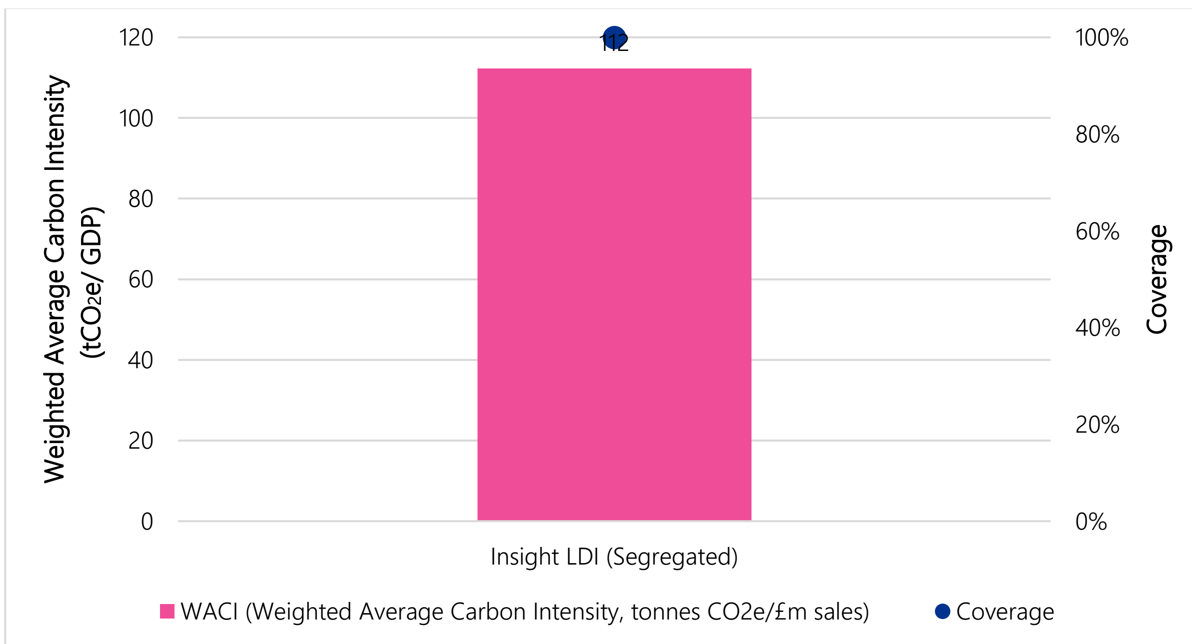
Chart 7 - Weighted Average Carbon Intensity (WACI) - Scope 3



Notes:

1. M&G data sourced directly from Investment Manager as at 30 September 2023.
2. Insight and RLAM data using MSCI ESG screener Tool using holdings provided by Investment Managers as at 30 September 2023.
3. Emissions data has been re-normalised to reflect 100% of the funds.

Chart 8 - Weighted Average Carbon Intensity (WACI) - Sovereign bonds



Notes:

1. Insight data sourced directly from Investment Manager as at 30 September 2023.

Transition alignment - Implied Temperature Rise

The Implied Temperature Rise metric uses forward looking estimates to indicate a global temperature rise associated with the greenhouse gas emissions of a single company or portfolio. Companies and portfolios which have an implied temperature rise of 2°C or lower are consistent with the Paris Agreement. Based on available information, all funds quoted below are aligned with the Paris Agreement, however with a higher implied temperature rise than the desirable 1.5ºC outcome. A small % of holdings within each mandate are strongly misaligned.

Table 15 - Implied temperature rise and future temperature state alignment

	Insight B&M Credit (Segregated)	RLAM B&M Credit (Segregated)
Implied temperature rise of the mandate (°C)	2.0	1.6
1.5°C Aligned	40%	40%
2°C Aligned	35%	40%
Misaligned	16%	15%
Strongly Misaligned	9%	5%

Additional metrics

Exposures to low carbon solutions identifies the portfolio's market value exposed to companies that have potential to benefit through the growth and demand for low carbon products and services. These typically include companies that offer renewable electricity, electric vehicles, solar cell manufacturers. Exposures to green revenue represent the percentage of companies and industries whose products and operations are well positioned for the transition (e.g. renewable-energy producers and electric-vehicle manufacturers) could see increased demand for their products and services in the low-carbon transition. In both instances, the RLAM B&M Credit Fund has the highest exposure.

Table 16 - Forward looking exposure to opportunities

	Insight B&M Credit Fund (Segregated)	RLAM B&M Credit Fund (Segregated)
Exposure to low carbon solutions	2%	3%
Exposure to green revenue	2%	5%

Table 17 - Forward looking exposure to opportunities

	Insight B&M Credit Fund (Segregated)	RLAM B&M Credit Fund (Segregated)
% of portfolio with SBTi approved targets	30%	18%

Table 17 states the proportion of the Funds underlying holdings which have verified Science Based Targets, according to the Science Based Targets initiative (SBTi). The SBTi is a global company which assesses the current emissions and emission reduction plans of companies and assigns a temperature alignment score (e.g. 1.5°C aligned) based on the credibility of the plans. It is clear that the majority of companies have not had their transition plans approved by SBTi. The Trustee will monitor this going forward.

Trustee's Conclusion

The Insight B&M Fund has the highest absolute emissions given its the largest holding, but the lack of data coverage distorts the validity of the conclusions from the analysis. The illiquid assets are assumed to have the highest emissions if data was readily available. This is apparent from M&G ICOF II having the largest carbon footprint despite only have 17% coverage of the portfolio.

Based on this, the Trustee, with the help of the Investment Advisor, will focus on engaging with the Investment Managers to understand how data coverage can be improved.

The Trustee will continue to focus attention towards the forward-looking measures with respect to the Buy & Maintain Credit mandates, where the portfolios are expected to naturally improve over time as the underlying issuers execute more credible transition plans. However, the Trustee will continue to monitor the Investment Managers' approach to ensure that the portfolios do improve over time and do not rely solely on wider market transition.

06 **Target**

Target

Emissions-based

The Trustee wishes to pursue a long-term strategy aligned to net zero by 2050.

The Trustee has set an interim target of a 30% reduction in the WACI of the investment portfolio by 2030 from a base year of 2020. Due to the limitation of available data as of 2020, The Trustee works closely with its Investment Advisor to understand the actions that need to be taken to progress towards the Trustee's climate-related target and understand what the reduction has already been at an underlying fund level. Examples of continued efforts to work towards the target are:

- Better integration of climate considerations in the manager selection process.
- Pushing managers to enhance their voting and engagement practices.
- Continuing to identify and allocate to solutions which deliver return opportunities as well as emissions reductions targets.

Trustee's Conclusion

The Trustee will review the progress against the target every year and review the target itself at least every three years. This is to ensure it remains consistent with the latest scientific thinking and is appropriately incentivising the economic transition that is needed.

The Trustee recognises that the total emissions and intensity figures for the Scheme may fluctuate over time as the data coverage across the assets improves.

As such, the Trustee expects that the early years of TCFD reporting may require more qualitative assessment of the Investment Managers' credibility when executing their ESG integration and climate analysis. However, this is expected to improve over time.

Given this is the first year of completing the TCFD report, the Trustee does not expect to undertake any investment strategy changes at this stage to reduce the climate characteristics of the portfolio. Instead, the Trustee will continue to engage with the underlying Investment Managers, with the help of their Investment Advisor, to improve the availability of data across the assets in which the scheme invests.

Appendix I - Glossary

Glossary	
Absolute emissions	(tCO2e) Measures the absolute tonnes of CO2e for which an investor is responsible.
Carbon footprint	(tCO2e / $m invested) The total greenhouse gas emissions 'owned' per £ million invested. This is an intensity measure but should not be confused with Carbon intensity which is typically quoted as an emissions per amount of revenues of a company.
Weighted Average Carbon Intensity	(tCO2e / $m sales) Measures portfolio exposure to carbon-intensive assets.
Implied Temperature Rise	Provides indication of portfolio alignment to Paris Agreement targets. Estimates global temperature rise (above pre-industrial levels) associated with current and estimated GHG of a company.
Climate VaR	A scenario-based approach to analysing climate-related risks which aims to assess potential financial sensitivity to climate-related risks and opportunities. Measures the potential loss in value of a portfolio if different climate scenarios come to fruition.

MSCI disclaimer

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