Task Force on Climate-related Financial Disclosures (TCFD) Report

cushon

Cushon Master Trust

Scheme year end 31 December 2023

Foreword

The Trustees of the Cushon Master Trust recognise Environmental, Social & Governance ('ESG') considerations as material and dynamic sources of risks and opportunities. We believe incorporating ESG factors, including climate change, into investment decision making is in the best interests of our members in accordance with our legal duties.

Climate change is a systemic risk to the global economy and financial markets, given the need for a drastic transition to a low carbon economy. Physical risks from climate change will be felt across all sectors and asset classes and we recognise this is an issue that cannot be ignored. We will continue to evolve our approach to managing these factors, and further details can be found in our Statement of Investment Principles and Responsible Investment and Stewardship Policy: https://www.cushon.co.uk/info/terms

This marks our third climate report, outlining the Trustees' governance processes and presenting key findings related to climate change reporting, in line with the framework set by the Task Force on Climate-related Financial Disclosures ('TCFD'), for the scheme year end on 31 December 2023. We believe appropriate disclosure of climate-related considerations will contribute towards a better climate strategy.

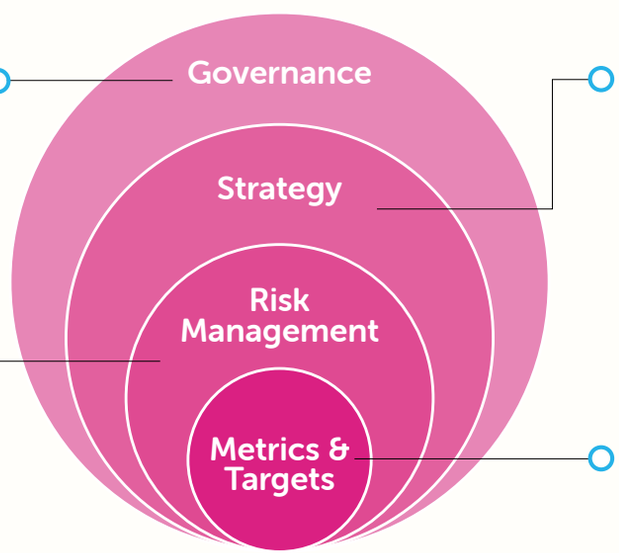
Executive Summary

When making investment decisions about your pension arrangements, we must consider a variety of financial risks, some of which may take decades to materialise. Given the long timescales and considerable uncertainty surrounding outcomes from climate change, we consider managing climate risks and opportunities to be a key part in our role of safeguarding your pension.

This report illustrates how the Cushon Master Trust ('the Scheme') is taking action to manage and mitigate the impact of climate change risks on your pension pot. The Scheme is an authorised DC UK Master Trust and is therefore required to disclose how climate change is factored into the Scheme's decisions at Trustee Board-level.

The key disclosures required by law are in-line with the recommendations of the TCFD and guidance from the Department for Work and Pensions ('DWP').

Trustee governance relating to climate risks and opportunities



The actual and potential impact of climate risks & opportunities on the Scheme, and how these considerations feed into strategic thinking

How Trustees identify, assess, and manage climate related risks

To identify and manage climate risks via disclosure of selected metrics and targets

Our default investment strategy has a central focus on climate change and tackling decarbonisation across all sectors. This is done without compromising investment returns.

We're helping tackle climate change whilst taking care of your future.

A summary of the key conclusions from this report is listed below:

Governance

As Trustees we have a duty to consider the financial risks and opportunities presented by climate change when running the Scheme.

We have reviewed our investment beliefs, taking into consideration these climate risks and opportunities, and have several policies aimed at ensuring the Scheme is governed in accordance with these principles.

We work with the Scheme Funder (Cushon), our advisers and investment managers to fulfil our climate-related responsibilities. We review our advisers' climate competency to ensure we understand the latest climate thinking.

Given how quickly the climate landscape evolves, we receive regular training on climate risks and opportunities, latest examples include tipping points and carbon markets.

Risk Management

We have integrated climate risks into our routine risk management processes at both the board and fund level.

- At the board level, a risk register is used – Investment managers that are unable to provide the required TCFD reporting are assessed to be the largest risk.

At the strategy level, we agreed our first climate risk and opportunities dashboard in 2022. This dashboard sets out our view across each asset class and will feed into our strategic thinking.

Strategy

In 2022, we launched our latest default investment strategy, the Cushon Sustainable Investment Strategy. This strategy includes investments in various exciting climate opportunities spanning several asset classes, within both public and private markets. We look forward to continuing to enhance our strategy over the coming years, in evolving current arrangements as well as bringing in new and exciting opportunities within climate as well as the broader sustainability spectrum.

Note in 2023 the Scheme launched a second default fund, Cushon Core, which is the same as the Cushon Sustainable Investment Strategy, except for the removal of the private markets allocation (with the 15% being allocated to the Macquarie equity index). It therefore receives a comparable level of climate integration as Cushon Sustainable Investment Strategy, given the underlying building blocks are the same.

Since its launch, we undertook additional climate scenario analysis on our default strategy last year. We assessed the potential impact of climate-related risks across short, medium, and long-term timeframes, reinforcing our conviction that prioritising the identification and management of climate risks is in the best interest of our members.

To manage these risks, the mandates employed within the default strategy adopt various approaches to climate risk and opportunities. This includes excluding the worst offenders, identifying climate-positive opportunities like renewable infrastructure, and supporting high-emitting companies in their decarbonisation efforts through stewardship activities.

We have agreed a set of stewardship priorities that we ensure our investment managers are aligned with. We recognise that the investment industry as a whole has a key part to play in supporting all sectors to decarbonise. We do our utmost to ensure that investment managers engage with companies to encourage future-proof sustainable policies and practices.

Metrics and Targets

In 2022, we agreed a new, ambitious target for Cushon Sustainable Investment Strategy's growth phase: to reduce its carbon footprint (scope 1 & 2) by a minimum of 80% from the 2022 baseline by September 30th, 2030. As of 2023, our growth phase's carbon footprint stands at 26 tCO2e/$m invested, marking an impressive 78% reduction, still with 7 years remaining until the target date.

We calculated the four designated metrics for the Cushon Sustainable Investment Strategy (growth phase) as of September 30th, 2023. For figures covering the total Cushon Sustainable Investment and Cushon Core portfolios (encompassing both growth and derisking phase), see the Technical Section at the end of this document.

1 Total GHG emissions (CO_2): 16,077 (scope 1 & 2), 79,883 (scope 3)	**2** Carbon footprint (CO_2/ $1m of Enterprise Value Including Cash "EVIC"): 42 (scope 1 & 2). 200 (scope 3)
3 Implied temperature rise: 2.4°C	**4** Data quality (scope 1 & 2): 0% verified, 82% reported, 12% estimated, 6% unavailable (definitions used for verified, reported, estimated and unavailable can be found on page 33 of this report)

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- At the board level, a risk register is used – Investment managers that are unable to provide the required TCFD reporting are assessed to be the largest risk.
- At the strategy level, we agreed our first climate risk and opportunities dashboard in 2022. This dashboard sets out our view across each asset class and will feed into our strategic thinking.

Contents

Governance

Describe the board's oversight of climate-related risks and opportunities

We are responsible for governing the Scheme, with a fiduciary duty to prioritise the best interests of our members. Acknowledging the financial significance of ESG factors, we diligently incorporate them into our decision-making processes as an integral part of our fiduciary duty. We believe that this approach to investment is in the best interests of members in accordance with our legal duties.

A key part of managing ESG factors is establishing oversight of climate-related risks and opportunities. We have put in place a Responsible Investment ('RI') and Stewardship Policy, which summarises our investment beliefs with respect to RI and how ESG factors are integrated into decision making. We act in accordance with this set of beliefs when considering material changes in the Scheme's investment arrangements.

Our immediate ESG priority is to address climate change, which poses a financially material risk, and potential opportunity, to our members. To this end, in 2022, we launched our latest default strategy ('the Cushon Sustainable Investment Strategy') which has a clear climate focus. While the Cushon Sustainable Investment Strategy boasts a low carbon footprint, it is equally committed to proactive measures and innovative financing solutions aimed at contributing to broader decarbonisation aspirations.

We have also committed to the following climate targets for our default strategy:

1. **For the carbon footprint (scope 1 & 2) to be at least 80% lower than the 2022 baseline by 30th Sep 2030.**
2. **Achievement of net zero well in advance of 2050.**

Click to read our Responsible Investment Policy:
https://www.cushon.co.uk/info/terms

Our Sustainable Investment Strategy
Mitigating the impacts of climate change is a primary focus for us – we have a long-term view and seek to identify opportunities that will aid in global action.

Describe management's role in assessing and managing climate-related risks and opportunities

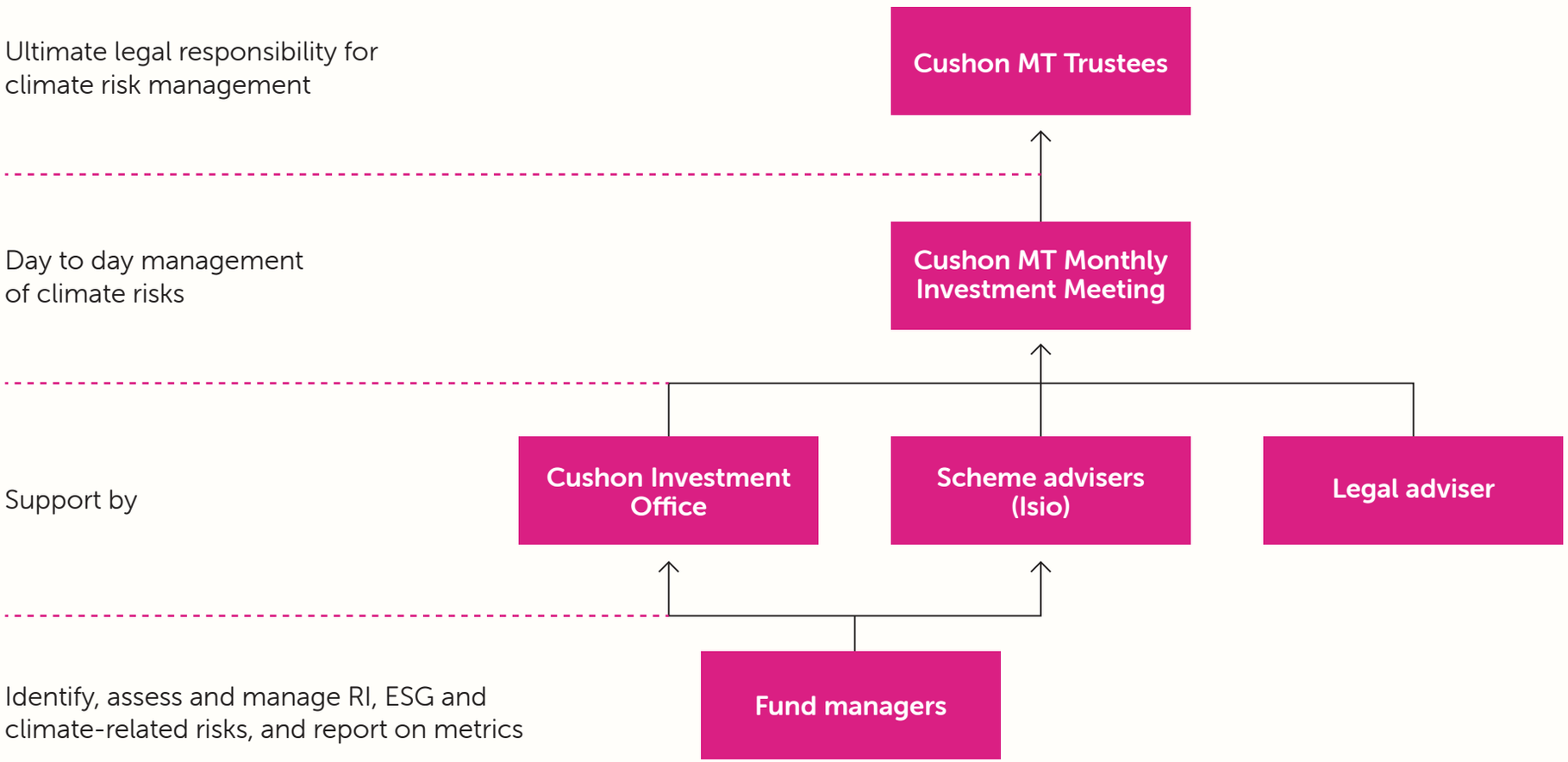
We, with support from the Scheme Funder, Cushon, the Scheme's advisers, and our investment managers, retain overall legal and fiduciary responsibility for how the Scheme's assets are invested, as well as ESG considerations (including climate change).

The table below summarises each party's role in managing climate-related risks and opportunities, with full details in our RI and Stewardship Policy. We have regular meetings with our advisers to receive formal advice and updates on the below.

Party	Roles and responsibilities
The Trustees	• Agree and review investment beliefs, investment strategy and investment objective, including the setting of RI ambitions or areas to prioritise. • Maintain the RI and Stewardship Policy and use them as a basis for driving and monitoring ESG integration. • Review investment managers' approaches to and effectiveness in RI. • Consider the investment managers' track record on voting and engagement and report via the annual Implementation Statement. • Consider member views on ESG issues (e.g. via surveys). • Receive regular climate-related updates from the Scheme's advisers. • Assess how external advisers and providers have performed against their climate responsibilities. • Decide which ESG-related bodies to support and/or join. • Respond to regulatory queries. • Fulfil regulatory requirements with respect to ESG, including preparing the annual Implementation Statement and oversee delivery of TCFD reporting. • Continue to develop the Trustees' understanding of RI through regular training on prevailing risks and sustainable investment opportunities.
Scheme Funder, Cushon	• Work with the Trustees to review and determine the strategic direction regarding RI and agree the RI and Stewardship Policy. • Propose investment strategies and managers which are aligned to the Scheme's Statement of Investment Principles ('SIP') and the RI and Stewardship Policy. • Communicate with members in regard to the positive impact of the investments and provide engagement tools to collate member views, in accordance with the Service Agreement in place between the Trustees, HS Pensions Limited and Cushon. • Provide updates to the Trustees on the Scheme's investments with respect to RI and climate change. • Cushon Investment Office provide regular updates to the Trustees on Cushon's latest thinking and potential innovative solutions in particular with regards to ESG.

Party	Roles and responsibilities
Investment Adviser, Isio	• Advise on RI, ESG and climate considerations that may arise as risks or opportunities. • Assess proposed mandates from an RI, ESG and climate perspective as part of the manager selection process. • Review the Scheme's investments from an RI, ESG and climate perspective. • Assist with the preparation of the annual TCFD report. • Collate information on the voting and engagement activity of underlying managers for inclusion in the Implementation Statement. • Provide training and relevant updates to the Trustees on relevant RI, ESG and climate-related matters.
Legal Adviser	• Provide training to the Trustees on RI, ESG and climate-related legal matters, and ensuring the Trustees are aware of their RI, ESG and climate-related legal and fiduciary obligations. • Assist in the documentation of the arrangements with the Scheme's third parties with respect to RI, ESG and climate-related matters.
Investment Managers	• Identify, assess and manage RI, ESG and climate-related risks and opportunities in relation to the Scheme's investments. • Exercise voting rights and engaging with portfolio companies in relation to RI, ESG and climate-related risks and opportunities, with consideration of the Trustees' views where applicable. • Report back to the Trustees on their stewardship record. • Provide climate-related metrics for TCFD reporting requirements and focus on increasing the quality and availability of these metrics.

The management of climate related risks is summarised in the below org structure:



Trustee Knowledge and Understanding

The landscape regarding climate-related risks and opportunities is evolving rapidly. We know that in order to identify, assess and manage potential climate-related risks, we must have the right level of knowledge and understanding of these matters.

We have recently undertaken the following training (which was also attended by relevant members of the Cushon Investment Office):

- Latest climate science
- Sector specific climate risks
- Carbon markets
- Climate tipping points and feedback loops
- Social implications of climate change
- Key scenario modelling limitations

We receive a range of climate-related materials/ information in order to continue to build our level of climate knowledge, with key items including the climate scenario analysis, climate metrics reporting and our climate risk and opportunities dashboard, as outlined in this document.

Assessing our Advisers

We regularly assess the climate competency of our advisers to ensure we align with best practice and the latest thinking. We monitor our investment adviser against these high level ESG-related objectives:

- Provision of advice on ESG (including climate change) risks and opportunities consistent with our ESG objectives
- Proactively identify new investment opportunities and risks
- Provision of advice on responsible ownership of assets including stewardship and execution
- Assisting us in meeting regulatory requirements, including TCFD

We ensure our managers embed a high level of ESG integration into their strategy design, and through regular interaction with managers, we ensure ESG risk is appropriately managed.

We also assess how our managers have voted in their investee companies and whether their voting record aligns with our investment principles. This is assessed annually in the implementation statement.

We further ensure that the Cushon Investment office has the appropriate capabilities and expertise to appropriately manage climate risks. This year Cushon have hired a climate risk expert from JP Morgan to further develop the risk capabilities of the Master Trust.

Through our market leading decarbonisation target, we monitor our managers to ensure best-in-class carbon footprint management. Fund managers are benchmarked against the wider market through this exercise.

We also regularly engage with stakeholders at industry events, to ensure we have the latest insights into emerging best practices and ESG concerns, informing ongoing evaluation criteria refinement.

Resources

The Cushon Investment Trustee has a monthly investment meeting with the scheme advisers and the Cushon Investment Office, where the latest ESG and climate related risk and opportunities are discussed. The Cushon MT investment strategy and any proposed mandates go through a rigorous climate integration framework developed by the Cushon Investment Office.

The full Trustee board meets quarterly, with a dedicated one-day Trustee meeting for investment matters. In this quarterly meeting, investment risks are discussed, with a focus on climate and ESG related risks.

Strategy

Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long-term

We, in conjunction with our advisers, have agreed time horizons of relevance to the Scheme when considering climate-related risks and opportunities. We have considered the potential impacts of both transition and physical risks on investments.

Transition risks

Incurred during the transition to a lower-carbon economy due to policy, legal, technology and market changes to address mitigation and adaptation requirements related to climate change

Physical risks

Arise from event driven (acute) or longer-term shifts (chronic) in climate patterns, these can result in direct damage to assets or indirect disruption to operations and supply chains

Term	Timeframe	Considerations feeding into timeframe setting			Climate risks on assets
Very Short Term	5 years	Market for climate solutions reaching more mature state	Significant transition finance expected in hard to abate sectors	Improvement in data quality of climate metrics	Transitional risks such as carbon pricing & regulation and physical risks starting to become a reality (as 1.5 degree boundary crossed)
Short Term	10 years	Interim 2030 targets enforced to limit global warming to 1.5^{0}C	Adaptation investment may become necessary if transition delayed	Older members approaching retirement	Transitional risks such as carbon pricing & regulation and potential physical risks such as extreme weather events and sea level rises
Medium term	30 years	Investors & organisations setting 2050 net zero targets	Transitioning to low carbon becomes increasingly difficult, as the quick wins dry up, leaving the harder to decarbonise sectors or assets	Significant proportion of current membership approaching retirement in 10-30 years	Transitional risks such as carbon pricing & regulation and potential unprecedented shifts in physical risks, with extreme weather events increasing in magnitude and frequency, such as flooding and cyclones
Long term	50 years	Physical risks may become dominant	Younger members or members yet to join the scheme approaching retirement		Possible ecosystem collapse if transition fails

As outlined above, we anticipate that shorter time frames will be predominantly dominated by the impacts of transition risks, as the world shifts towards a lower-carbon economy if a net-zero ambition is achieved. Over the longer term, the physical impacts stemming from altering climate patterns will become increasingly significant if these ambitions and targets are not achieved. Although the Trustees acknowledge that physical risks are present and worsening today.

Across all identified time frames, we believe there will be significant investment opportunities in sustainable growth, development, and various industries if a net-zero ambition is achieved. Companies that adapt best to climate risks or provide solutions enabling corporations or society to adapt to or mitigate the impact, present attractive investment opportunities. For example, companies that are providing solutions to renewable energy or hydrogen-based transport exemplify these opportunities. Our beliefs around climate opportunities have factored into the construction of our latest default strategy — the Cushon Sustainable Investment Strategy.

Further detail on the assessment of climate risks and opportunities across these different time horizons can be found in the Risk Management section.

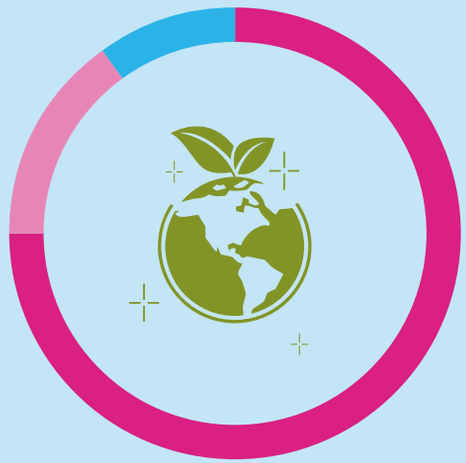
Describe the impact of climate-related risks and opportunities on the organisation's business, strategy and financial planning

We provide a default strategy, the Cushon Sustainable Investment Strategy, to members who do not make a specific investment choice. The default strategy is selected in the best interest of the majority of members and beneficiaries, and we undertake periodic reviews on the suitability.
We spent considerable time during the reporting period reviewing the climate-related risks and opportunities within the Cushon Sustainable Investment Strategy.

The Cushon Sustainable Investment Strategy aims to reduce exposure to climate risk across all asset classes. As part of a diversified portfolio, the strategy invests in a range of climate mitigation, climate adaptation and natural capital strategies in developed and emerging markets targeting both impact on people and on the planet.

Selected climate-driven investments include wind and solar farms, forestry, battery tech, green hydrogen, climate insurance and social housing. Beyond environmental projects, the Cushon Sustainable Investment Strategy seeks to ensure greater social impact for its members' investments, connecting savers with the UN's Sustainable Development Goals ('SDGs') and incorporating broader ESG principles.

Cushon Sustainable Investment Strategy



Fully ESG integrated

The asset allocation for the Cushon Sustainable Investment Strategy is shown above for the growth phase. A more detailed breakdown of the asset allocation throughout the whole lifestyle is shown on page 18 of this report.

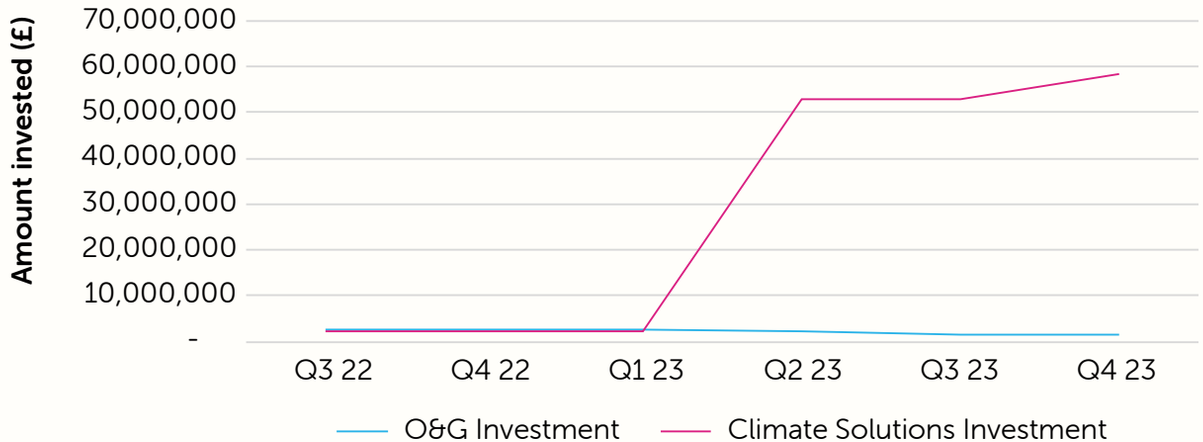
Mandate	Manager	Integration of climate-related risks and opportunities
Global equities	Macquarie (who invest in a climate-oriented equity index designed by Solactive)	• First, the full universe of ~2,500 securities in screened based on UN Sustainable Development Goals ('SDGs') alignment (including SDG 13 on Climate Action), reducing the universe to ~1,600 securities. This ensures companies that have a negative impact on UN SDGs are excluded. • Achieved an immediate 60% (in 2022) and ongoing reduction 7% p.a. in scope 1 & 2 greenhouse gas emissions. • Increasing exposure to companies with green carbon revenues, e.g. from low carbon products and services. • Reducing exposure to companies that carry significant carbon risk, by tilting away from carbon intensive companies. • Further screening of companies involved in controversial weapons and serious breaches of the UN Global Compact.
Bonds (Corporate Bonds)	Lombard Odier	• Invests in issuers which contribute to a reduction in global CO2e emissions and the eventual achievement of net zero by 2050. • May invest in sectors that have a high carbon footprint today, but where the company is expected to adapt to the climate transition successfully – this can present opportunities as these companies may be excluded by other investors who look only at today's emissions. • Screening out companies that derive more than 10% of revenue from sources which the manager believes are detrimental to ESG factors. • Targets a 50% reduction in greenhouse gas emissions by 2030, and net zero by 2050. Aim to achieve this through investing 10%+ to "green" investments, and reducing the investments in "red star" assets to below 30% compared to it's benchmark, as defined in the investment manger's own, bespoke "LOIM Classification Framework".
	LGIM	• Rules-based approach to scoring companies based on their ESG factors. These scores are utilised to apply a weighting to companies within the index, favouring those with stronger ESG integration. • LGIM consider Transparency as a factor alongside Environmental, Social, and Governance factors, deciding that the quality of a firm's disclosures are as material as the disclosures. • Through their signatory to the Net Zero Asset Owner Alliance, LGIM has publicly committed to helping clients transition their assets in line with global pathways towards net zero by 2050.
	Wellington	• Focuses on high impact issuers across 3 core impact areas (Life Essentials, Human Empowerment, and the Environment), with key performance indicators measuring each investment's level of impact. • Targets a 50% reduction in greenhouse gas emissions by 2030, and net zero by 2050. Aim to be achieved through identifying the top contributors to the portfolio's overall WACI, and engaging with them to come to a resolution. If no resolution can be achieved, divestment is an option.

Mandate	Manager	Integration of climate-related risks and opportunities
Bonds (Multi Asset credit)	NinetyOne	• The NinetyOne framework involves investments being assessed against 9 core sustainability themes (climate change, pollution and waste, natural capital, human capital, social capital, product liability, corporate behaviour, regulatory risk, governance). • At least 50% of the portfolio to be achieving net zero, aligned to a net zero pathway, or aligning to a net zero pathway according to the Transition Alignment Framework by 2030..
Private markets)	Schroders	• 70%+ of investments to meet positive climate impact criteria, with the manager having discretion to invest the remaining investments in other SDG investments. • Includes investments in areas such as renewable energy and infrastructure, sustainable transport, climate-related technology, and forestry which all play a key role in reducing emissions. Designed net negative portfolio, targeting to hit this goal by 2030. Will be achieved simply through the nature of the investments. Natural Capital assets sequester carbon, and the remaining asset classes will have inherently low emissions, such as sustainable infrastructure.

Where the Scheme invests in pooled funds, we have considered how the investment managers take climate change into account, including in relation to stewardship and engagement. Detail can be found in the Risk Management section.

As a result of the allocation to the Schroders private markets mandate, the Cushon Sustainable Investment Strategy has a significantly higher exposure to climate solutions than to oil and gas, and this is reflected in how we have invested our members' funds.

O&G vs Climate Solutions Investment
Cushon Sustainable Investment Strategy



We also make available a range of self-select options for members to choose from based on their own attitude to risk, term to retirement, and investment objective. ESG factors, including climate change, are integrated as a core element of as many self-select funds as possible, subject to availability of funds within different asset classes.

Self-select fund range

Sustainable options

Cushon Global Equity	**Sustainable Global Equity**	**Sustainable UK Equity**	**Sustainable Europe (ex UK) Equity**	**Sustainable Japanese Equity**
Sustainable North American Equity	**Sustainable Pacific ex Japan Equity**	**Sustainable Emerging Market Equity**	**Global Impact Equity**	**Cushon Global Bonds**
	Cushon Shariah	**Cushon Fixed Interest Gilts**	**Sustainable UK Corporate Bonds**	

The self-select range will be regularly reviewed considering market and product developments in the ESG fund sector.

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

We undertook our first climate scenario analysis in 2021 and have updated this last year to reflect the Cushon Sustainable Investment Strategy.

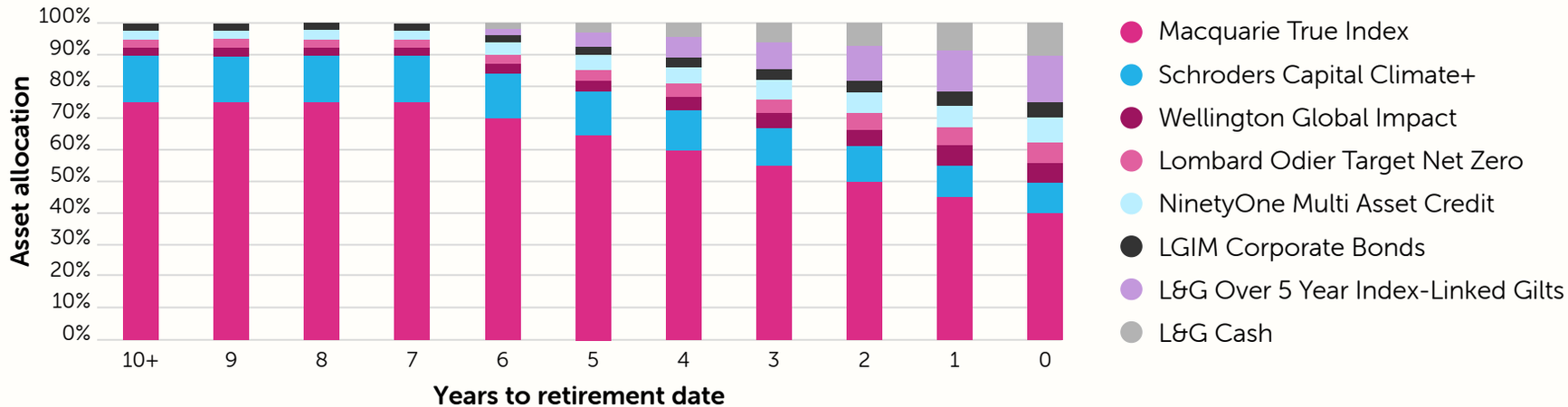
Strategy modelled

The analysis was undertaken last year on the Scheme's default DC arrangements, the Cushon Sustainable Investment Strategy, which now accounts for at least £500m or >90% of total assets of the Cushon Master Trust. Note throughout 2024, the Cushon Master Trust will be switching the assets of two other Master Trusts to this default arrangement, so this figure may fluctuate over the course of 2024.

Note the modelling was carried out in the prior scheme year and is reproduced here. We are comfortable that this scenario analysis remains relevant, given the investment strategy modelled is unchanged. We note also no significant changes to the underlying NGFS scenarios and are thus comfortable the below analysis remains relevant.

We expect to improve our scenario analysis capabilities for the scheme year calendar 2024, and we are exploring more in depth and qualitative scenario analysis with UK universities. Therefore we expect to improve the quality of scenario analysis in the next TCFD report.

The below chart depicts the default strategy modelled, a member's de-risking journey is reflected in the modelling.



A detailed overview of how the model works can be found in the Appendix.

Scenarios

The three climate scenarios assessed are defined by the Network for Greening the Financial System ('NGFS'), and interpreted by Moody's Analytics. The NGFS is a group driving consistency in the climate scenarios updated by the financial industry. A description of each scenario is below, with the results of the analysis provided after. A description of each scenario is below, with the results of the analysis provided after.

Net Zero 2050
1.5°C

- A Paris aligned scenario with global temperature rise kept to 1.5oC above pre-industrial levels and net zero by 2050 achieved.
- An optimistic scenario with the transition to net zero implemented in a measured, uniform and orderly manner; with sufficient investment in green/ offsetting technology.
- Transition costs are incurred but are kept low due to the efficient manner of implementation.
- Physical damages are minimised.

Divergent Net Zero
1.5°C

- A Paris aligned scenario with global temperature rise kept to 1.5oC above pre-industrial levels and net zero by 2050 achieved.
- A more pessimistic scenario with the transition to net zero being divergent in decarbonisation policies across sectors e.g. the transport and building sectors instil more stringent climate policies than the energy and industrial sectors.
- Transition costs are higher than the Net Zero 2050 scenario due to the inefficient implementation of decarbonisation policies/plans and offsetting technology being less widely available and more expensive.
- Physical damages are minimised.

Current Policies
3.8°C

- A pessimistic scenario where the world largely fails to meet the ambition set out in the Paris Agreement, resulting in 3.8°C of warming this century.
- Current global climate policies are implemented, but no further ramping up of climate policy ambition over time, resulting in lower transition costs. Higher physical risks arise as a result of rising global temperatures, with shifts in weather patterns and an increased incidence of natural disasters.

Climate Scenarios

Technical assumptions

	Orderly transition	Disorderly transition	Hot house
Climate policy	Climate policies introduced early and uniformly across sectors, and become gradually more stringent.	Divergent climate action, with more ambitious climate policies in some sectors than others.	Current policies implemented, but Nationally Determined Contributions (under the Paris Agreement) not met.
Scenario outcome	Global net zero carbon emissions achieved by 2050, resulting in a 50% chance of achieving a below 1.5^{0}C scenario.	Emissions reductions are costlier (vs the orderly scenario), in order to meet the same target of 1.5^{0}C scenario.	Emissions continue to grow from today until 2080, leading to a 3.8^{0}C scenario outcome this century.
Carbon price	Gradual increase in the carbon price from 2020 onwards, reaching $540 per ton of greenhouse gas (GHG) emissions by the end of the century.	Whilst carbon price remains extremely low to 2030, it accelerates to over $1,350 per ton of GHG emission by the end of this century.	Carbon price remains extremely low until the end of the century, with minimal impact on markets
Transition risks	Relatively low transition risk (vs disorderly). Emissions reductions occur immediately and are relatively ambitious, across sectors. Gradual increase in renewable energy and biomass to >70% of global energy mix by 2050, with the near complete phase out of coal. Carbon dioxide removal (CDR) is deployed, including nature-based solutions and carbon capture, usage and storage. This is kept to the minimum level possible to still achieve the temperature target.	Relatively higher transition risks (vs orderly), as decarbonisation actions are more disorderly and costly. Emissions reductions are divergent across sectors (being more ambitious in transport and buildings, vs less ambitious in energy and industry sectors). The renewable energy mix outcome is relatively similar to the orderly scenario, with nuclear energy also being important across the low carbon scenarios. There is slightly more limited CDR deployment, as compared with the orderly scenario.	Current climate policies are implemented, but with no further decarbonisation action is taken. Emissions eventually stabilise across sectors, at higher levels than the other scenarios considered. Renewable energy and biomass share only increases marginally from 2020 levels, reaching ~25% by 2050, as investment in fossil fuels continue. No investment in CDR approaches and technologies.

	Orderly transition	Disorderly transition	Hot house
Physical risks	Physical impacts remain relatively low (vs hot house). There will be gradual impacts from the climate system, including a ~0.4m rise in sea levels, globally, and an estimated decline in the yields of major agricultural crops, e.g. wheat, maize and soybean crops, of up to a quarter to the end of the century. Shifts in natural disasters will vary across geographies. For example, in the UK, the extent of river flooding could increase by over 20% by the end of the century (from 2020 levels).	Physical impacts are similar to the orderly scenario, given similar temperature outcomes. Sea level rise and crop yield expectations are similar to the orderly scenario. Whilst in the UK, precipitation is expected to decrease threefold by the end of the century (across both of the low carbon scenarios). Whilst the daily average temperature will increase only marginally in the UK, the incidence of heatwaves will increase at a more significant rate, alongside a higher extent of flooding.	Severe physical impacts result. Under this high warming scenario, there may be irreversible changes in the climate system. Sea levels rise is expected to reach ~0.7m by the end of the century, accompanied by significant declines in agricultural yields, in particular for maize crops, which experience a halving of yields (on average, globally). Unprecedented natural disasters could be experienced. For example, in the UK, annual damages incurred from cyclones could increase by circa 60% (from near zero in 2020), whilst the land exposed to wildfires could double.

We have also assessed a baseline scenario which assumes no transition or physical impacts of climate change i.e. a climate neutral scenario for comparison purposes.

We have opted to assess these scenarios given our focus on net zero and the importance of understanding the pathway to achieve this (i.e. orderly vs disorderly), with the speed of action being central to how costly the transition will be for the global economy and investments. The hot house scenario provides a view on possible physical risks should society not decarbonise to a well below 2^0C scenario, which is expected to lead to significant changes in weather patterns and severity of natural disasters.

Whilst scenario analysis is an approximate exercise, analysing these extremes helps us assess how severe transition risks and physical risks could be for the Scheme. We ensured to feed in the high-level results of the scenario analysis into our strategic thinking, rather than focusing on the detailed numbers given the uncertainty and assumptions underlying the modelling.

Modelling Limitations

Ahead of analysing the results of the scenario analysis, we discussed key limitations of the modelling to ensure we have a full picture of the potential impacts of climate change. The key limitations we discussed included:

- The potential underrepresentation of physical risks within modelling with such impacts as tipping points not captured in standard climate scenario analysis. We therefore recognise that the impacts of higher warming scenarios may be more extreme than currently reported. We expect to undertake a project with a UK university in 2024 to better understand our physical risk exposure, as well as best in class approaches for mitigating these risks in equity index design.
- It is difficult to model "unknown unknowns" for example climate risk or technological progress not yet discovered.
- This modelling involves very long-time horizons and any uncertainties will compound over time.

Accounting for the above, the impacts on Cushon's portfolio could be more than 3x more severe than under the Current Policies scenario. We therefore applied a qualitative overlay to the scenario analysis results to ensure we cover all aspects of climate risks and opportunities in our discussions.

Further details on our scenario modelling, including key assumptions and any limitations are included in the Technical Section.

Scenario Analysis

Results

Asset value projections

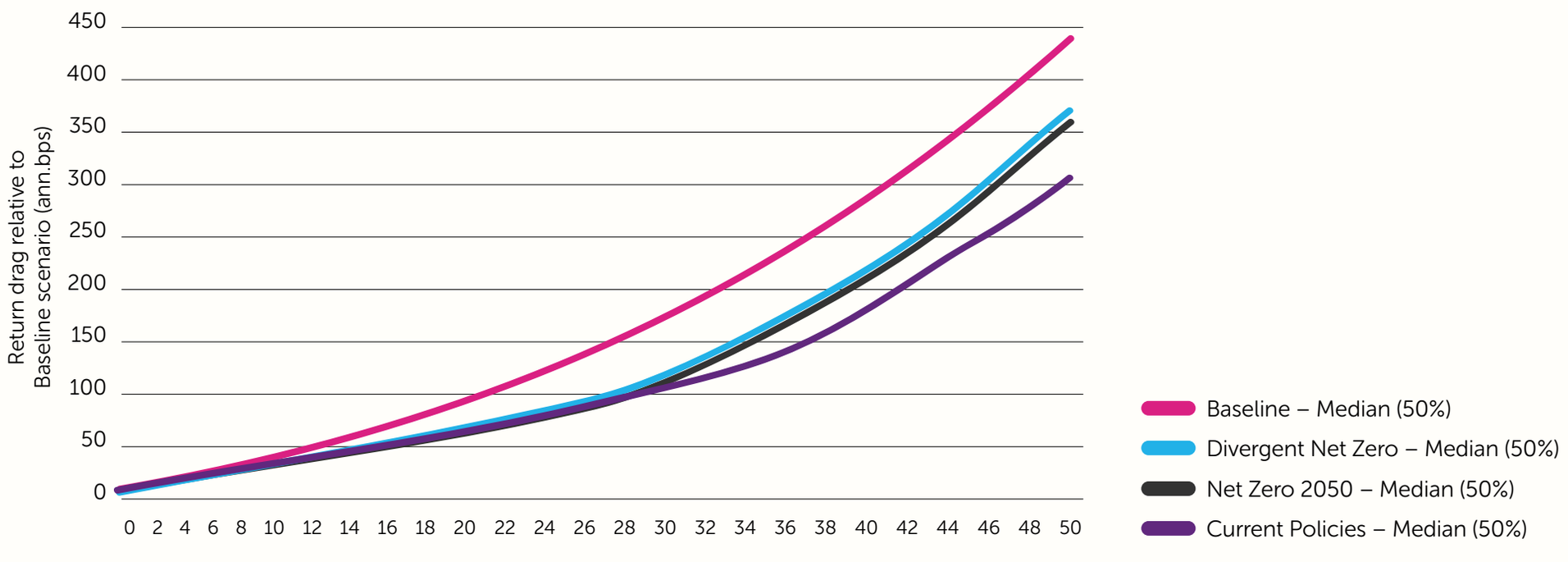
The chart shows the projected asset values for a younger member invested in the Cushon Sustainable Investment Strategy, under the three described scenarios as well as baseline scenario which assumes no climate costs.

Member assumptions

Starting age: 18
Retirement age: 68
Starting pot: £5,000
Starting salary: £25,000 (increasing annually in line with inflation)
Contributions: 8% p.a.

The starting age, pot and salary assumptions have been used to align with the Chair statement (which are based on member demographics).

The analysis accounts for changing asset allocation to reflect a member's de-risking journey.



The table below shows the annualised return drag relative to baseline scenario.

Scenario	10 years (bps)	30 years (bps)	50 years (bps)
Net Zero 2050	-39	-135	-97
Divergent Net Zero	-135	-159	-104
Current Policies	-76	-162	-138

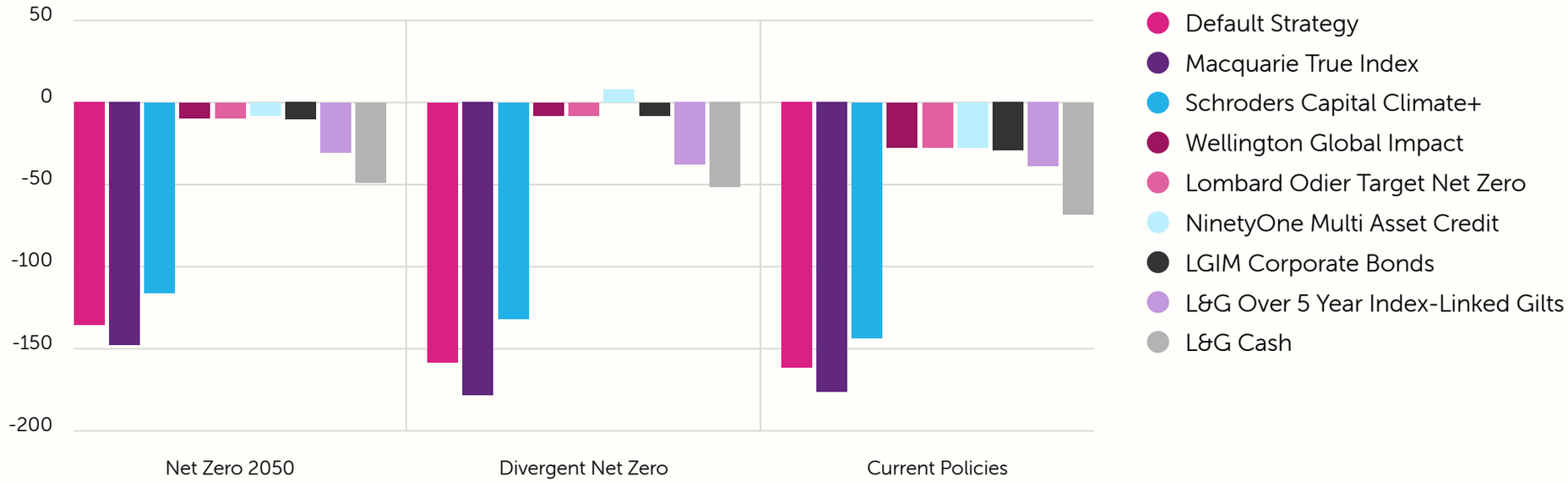
What's clear from this analysis is that:

- Should the world transition towards net zero by 2050, the pathway followed (i.e. orderly or divergent) has an impact on member experience. This is especially true over the shorter term, with the transition costs incurred under Divergent Net Zero being much higher over the 10 year period (135bps p.a. return drag vs 39bps return drag under Net Zero 2050). This reinforces the focus on investing in transition ready companies and investments.
- Over the longer term, the Current Policies scenario shows the significant potential physical impacts of rising global temperatures; over a 50-year period this could lead to a c. £120k or -31% impact, compared to baseline (calculated through deducting an annual -138bps drag over 50 years). This is important given the long timeframes for most members within the Scheme.

Asset class impacts

We also considered asset class specific results where we looked to isolate the impact against each individual asset class within our default strategy, across our three time horizons. This helps us assess key contributors within the strategy to climate risk and drive our strategy discussions. This analysis has also fed into our climate risk and opportunities dashboard set out within the Risk Management section.

Return drag relative to baseline scenario (ann. bps) – 30 years



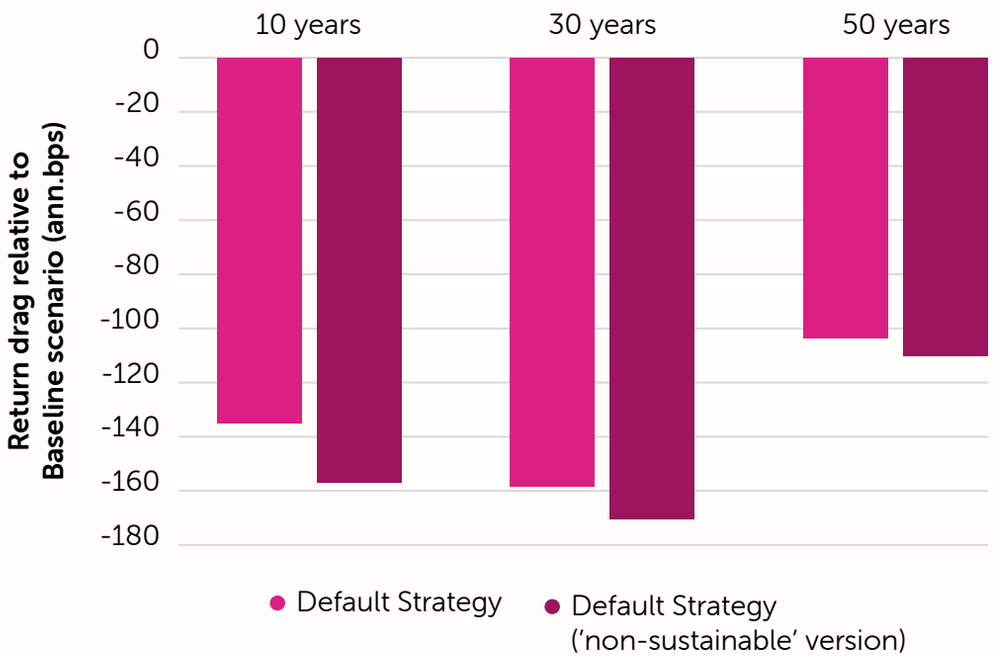
The key conclusion from this analysis includes:

- This chart shows the climate costs roughly to 2050, and seems to be the time period in which the Current Policies scenario becomes more damaging than the net zero scenarios.
- At a total strategy level, over a 30-year time period, we see the initial impacts of the physical costs of rising global temperatures (with temperature rise reaching c. 2.4oC under Current Policies).
- As expected, climate risks are more dominant within the equity allocations, both public (Macquarie) and private (Schroders). We have implemented climate tilts and objectives within both of these mandates in order to manage climate risks and seek climate opportunities.
- We have also considered the potential impacts across different cohorts of members. Members within the growth phase are deemed to be more exposed to climate risk given the higher risk strategy with an allocation to equities, this however does also mean increased exposure to climate opportunities. Whilst members at retirement are still exposed to climate risk, this is deemed smaller given the lower risk asset classes within the strategy.

Quantifying the climate benefit

Over 2022 we launched the Cushon Sustainable Investment Strategy, with climate considerations lying at the heart of this strategy. In order to assess the effectiveness of the climate risk management within the strategy, we considered the 'climate benefit' i.e. the potential downside protection against climate risk. In order to do so, we modelled a 'non-sustainable' version of the strategy which has the same asset allocation but implemented without climate-aware funds.

We show the results below for the Divergent Net Zero scenario. This shows clearly the downside protection against climate risk, for example over 10 years, our default strategy is estimated to perform over c. 20 bps better p.a. than the 'non-sustainable' version under a Divergent Net Zero scenario. Following the conclusion of our index redesign throughout 2024 and early 2025, we expect the improvement relative to a Non-Sustainable / Non-Climate aware portfolio to increase substantially. This is because this project will focus on how best to mitigate transition and physical risks in equity index (the biggest allocation in the strategy).



Looking forward

Although the impact of different climate scenarios is minimal in the short term, the default strategy is projected to be more significantly impacted over the longer term. These longer timeframes are important given the membership and scheme profile, and should be considered in any future investment strategy work.

We will continue to further our strategic climate thinking, as well as further developing our thinking when it comes to nature risks and opportunities.

Risk Management

Describe the organisation's processes for identifying and assessing climate-related risks

We seek advice from our advisers and receive presentations from investment managers on climate-related risks. The Cushon Investment Office also has deep knowledge of climate-related risks and opportunities and plays a key role in ensuring these are incorporated when developing the strategy.

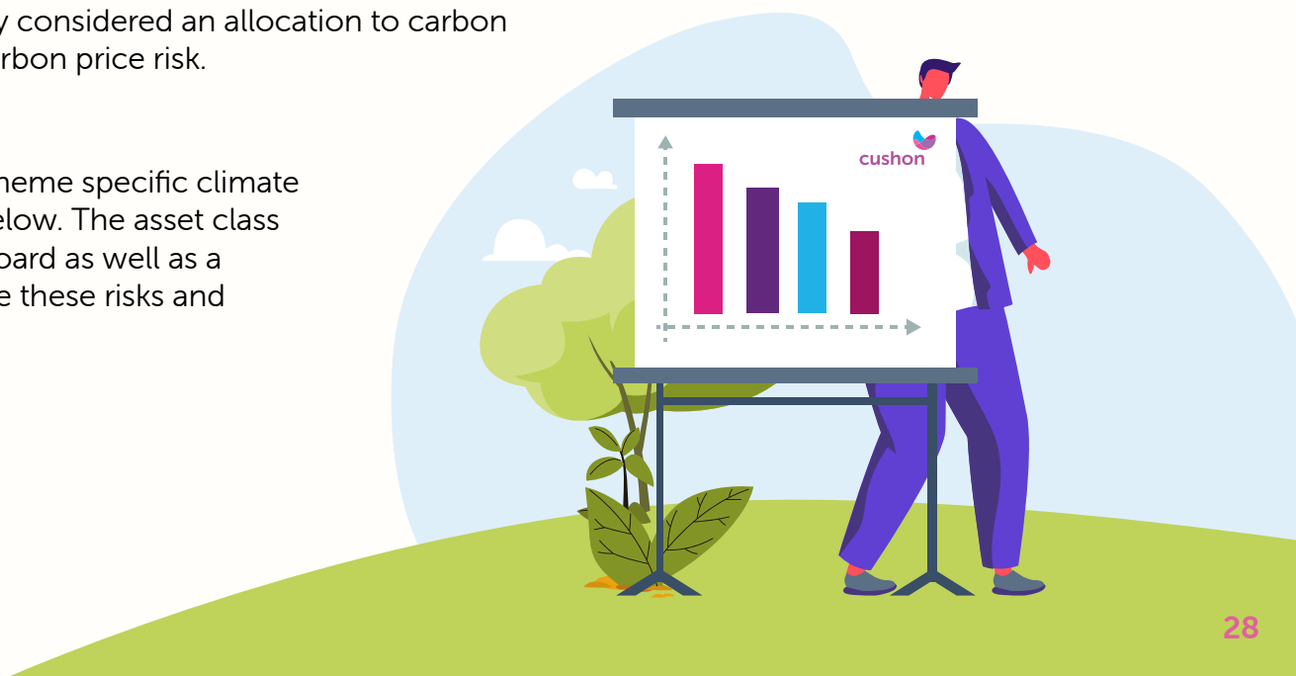
We have reviewed all policies and frameworks in place to ensure climate risks and opportunities are central to our investment decisions and risk frameworks.

Risk register

We review the climate-related considerations in the Scheme's risk register annually, and details of this section of the risk register are noted on page 31/32. We consider the likelihood, impact, ownership and any mitigation actions that have been taken, with each risk scored according to its likelihood and potential impact. For risks with a combined likelihood / impact score of greater than 15, these are designated as "Key Risks" and there are additional controls in place to ensure these risks are managed to the appropriate level. A "key risk" would lead to a review to assess whether the risk can be mitigated and how much of the risk can be accepted. The Trustees have recently considered an allocation to carbon sequestration natural capital as a way to mitigate carbon price risk.

Climate risk and opportunities dashboard

Over the reporting period, we have developed a Scheme specific climate risk and opportunities dashboard, as can be seen below. The asset class specific scenario analysis results fed into this dashboard as well as a qualitative overlay of what we have done to manage these risks and identify opportunities.



We will review and update this dashboard annually and use it to feed into our strategic thinking

Risk	Timeframe	Assets				
		Government Bonds	Corporate Bonds	Multi Asset Credit	Private Markets	Equity
Transitional (net zero scenario*)	Short term (10 years)					
	Medium term (30 years)					
	Long term (50 years)					
Physical (current policies scenario)	Short term (10 years)					
	Medium term (30 years)					
	Long term (50 years)					

*The directional impacts under the 2050 Net Zero and Divergent Net Zero scenarios are likely to be similar, albeit the magnitude and timing is expected to differ.

Low Average High

Describe the organisation's processes for managing climate-related risks

Investment managers

We delegate day-to-day management of the investments to fund managers, so we rely on them to identify, assess and manage climate-related risks on an ongoing basis. We are responsible for selecting and monitoring managers with support from our Investment Adviser, Isio. We assessed the climate capabilities of each of the investment managers appointed when designing the Cushon Sustainable Investment Strategy in 2022.

The evaluation criteria used to assess each investment manager is explained below. The investment managers' ESG (including climate) capabilities will be assessed on an annual basis.

Assessment category	Example evaluation criteria
Investment approach	Are the fund's climate objectives quantifiable with interim targets set? Are climate factors/considerations clearly integrated into the fund's due diligence process and ongoing investment analysis?
Risk management	Is there a firm-wide policy or commitment on climate change? Does the manager have a dedicated individual within the ESG team with responsibility for oversight of the climate change policy?
Voting & engagement	Is climate change incorporated in the fund's stewardship priorities? Can the manager provide a case study example demonstrating effective engagement on climate-related issues?
Reporting	Does the manager undertake forward looking climate scenario modelling and is this published in quarterly reports? Is climate-related data independently verified?
Collaboration	Can the manager provide evidence of engagement with the wider community on climate change? Is the manager a member of the UN Net-Zero Asset Owner Alliance? If not, is there a valid reason why?

Stewardship activity

We recognise the role of stewardship in driving change and aiding the transition to a lower carbon economy. As noted above, the voting and engagement activity of each investment manager within the Cushon Sustainable Investment Strategy has been assessed as part of our manager selection process.

The Scheme's assets are held on the Mobius Life platform via a Trustee Investment Plan. Mobius Life have an Engagement & Stewardship Policy that can be found here. We share our investment beliefs with Mobius Life and will keep this under regular review.

We have a voting preference letter in place that we share with relevant parties in order to express our stewardship priorities. We have adopted a range of stewardship priorities that are important to us and our members, these being:

- Climate alignment – decarbonising and minimising emissions
- Climate adaptation
- Biodiversity risk and management
- Labour rights incl. modern slavery
- Diversity and inclusion (on boards in particular)

We request annual information from our investment managers on how they have voted and engaged in alignment with these priorities.

It is our intention that the investment managers appointed to manage the Scheme's assets will share similar beliefs to us, and therefore any voting and engagement by them with underlying companies are expected to be in line with our investment beliefs. We however note that Mobius Life and the investment managers will be carrying out voting and engagement for many investors, and will be obliged to manage this in line with the interests of all their clients, which may result in conflicts where there is no consensus.

Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management

The tables below sets out the climate-related risks that we monitor, in addition to the controls put in place to manage these risks at the Scheme level. These have been included in the Scheme's risk register and considered over the time horizons set out on page 13.

Risk	Description	Control	Owner	Likelihood	Impact	Likelihood/ Impact
Investment approach	Repositioning of Net Zero not being completed effectively	Advice on investments received from the Scheme Investment Adviser who carries out due diligence on their recommended funds on an ongoing basis. Trustees consider this aspect as part of investment strategy decisions. Cushon have received advice from a Climate Consultant, with the communication exercise being led by the Cushon Marketing team.	Trustees Investment Adviser	2	4	8
Responsible investing	Risk of ESG (Environmental, social and corporate Governance) not being factored into investment decisions	Advice on investment fund selection received from the Investment Adviser who carries out Operational Due Diligence on their recommended funds at outset and on an ongoing basis. This factor is considered within the Investment Adviser risk management framework, as they identify and manage risks which impact investment outcomes. This factor is integrated into fund selection and monitoring. Responsible Investment Policy has been put in place. ESG is covered within the SIP and both documents are monitored on an ongoing basis. The Trustees are members of the Occupational Pension Stewardship Council (OSPC).	Trustees Investment Adviser	2	3	6

Risk	Description	Control	Owner	Likelihood	Impact	Likelihood/ Impact
TCFD	The Trustees do not comply with the TCFD requirements	Project plan and governance framework in place and being monitored. Trustee training has taken place (latest 20 Jan 2024). Advice from authorised Investment Adviser, Isio, is being received. Regular Trustee meeting agenda item.	Trustees Investment Adviser	2	3	6
	Climate change impacting investment returns	Advice being received from authorised Investment Adviser. Scenario testing has been agreed and monitored on an ongoing basis with tracking towards net zero. MI tracking to be received regularly.	Trustees Investment Adviser	2	3	6
	Carbon price risk impacting equity values	This is monitored by the Cushon Investment Office by measuring the earnings impact on investee companies of rising carbon prices. This is communicated to the Trustees and investment advisers.	Trustees Investment Adviser	3	4	12
	Procurement & investment Risk - Fund managers unable to provide the required TCFD reporting	New Scheme default managers selected based on ability to report and are signed up to protocols to ensure compliance. Best endeavours are being made to ensure compliance from legacy managers. Advice from authorised Investment Adviser, Isio, is being received.	Trustees Investment Adviser	3	3	9
Financial sustainability	Environmental Lobbyist activity - Poorly informed activities causing targeted and consequential real world disruption and actual physical damage	Responsible Investment Policy has been put in place and is monitored on an ongoing basis. The Trustees make clear their Responsible Investing policies and ensure these meet the rational expectations of members and society.	Trustees	2	3	6
	The risk that the movement in stranded carbon will impact the economy and as a result - Scheme investment valuations	Responsible Investment Policy has been put in place and is monitored on an ongoing basis. Climate-related risk and management has been incorporated into the Trustee investment beliefs, Statement of Investment Principles and Responsible Investment policy. All policies are monitored on an ongoing basis.	Trustees Investment Adviser	3	3	9

Metrics & Targets

Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.

In our 2023 TCFD report, we have reported on 4 metrics which are in line with the recommended DWP guidelines. The metrics reported will evolve as data coverage and quality improves.

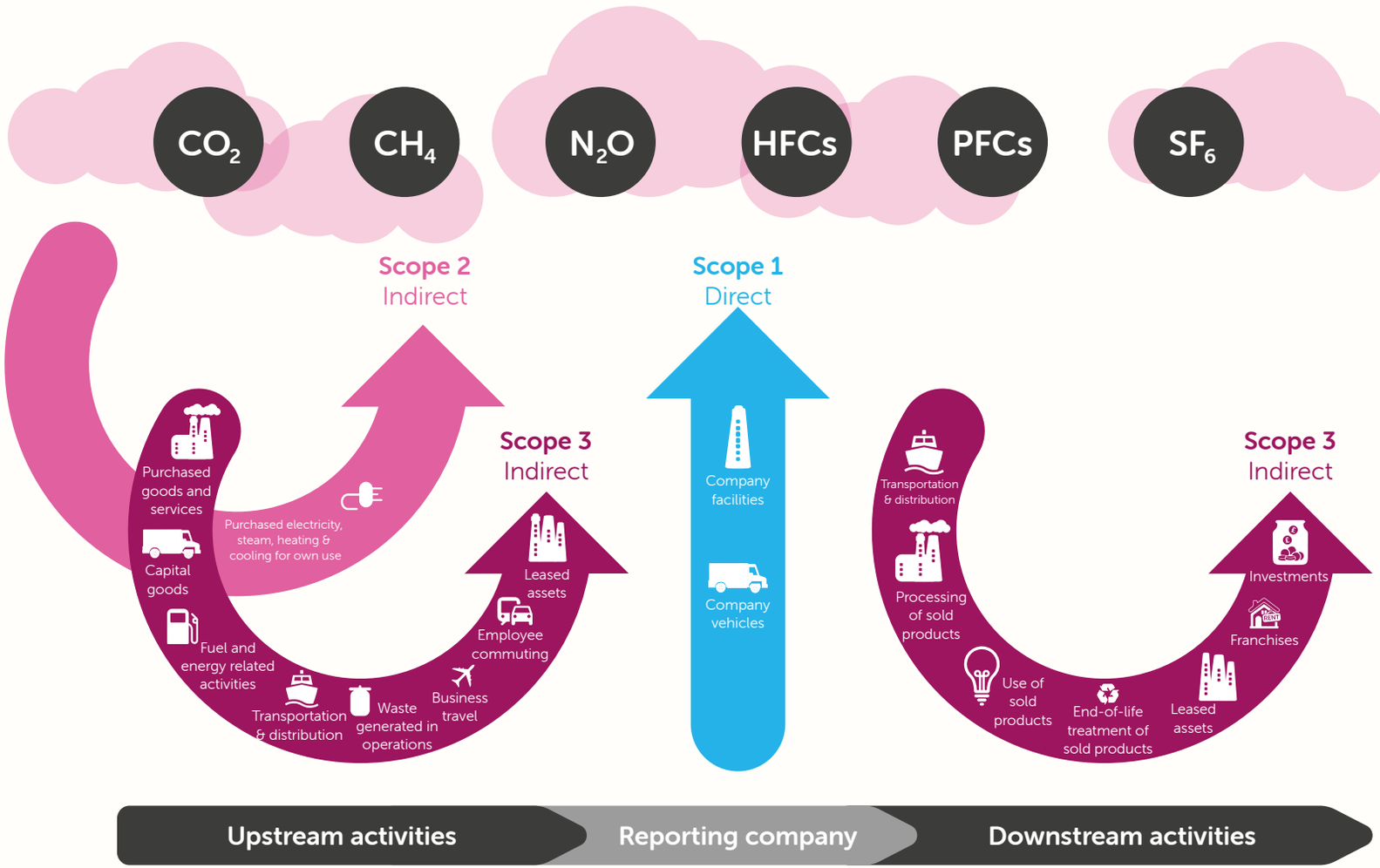
The transition to the Cushon Sustainable Investment Strategy into 2022 greatly improved our access to emissions metrics, with the availability of emissions data being part of the manager selection process.

The 4 metrics being reported for this year's TCFD report are:

	Metric	Definition	Unit of measurement
Absolute emissions metric	Total greenhouse gas emissions (Scope 1, 2 & 3)	Total amount of greenhouse gas ('GHG') emissions emitted by the fund's underlying portfolio companies, attributed to the investor based on the total investment in each company	tCO2e (Tonnes of CO2 equivalent emissions)
Emissions intensity-based metric	Carbon footprint (Scope 1, 2 & 3)	An intensity measure of emissions that assesses the level of greenhouse gas emissions arising from a $1 million investment in a company	tCO2e/$m invested
Portfolio alignment metric	Implied temperature rise	The temperature pathway the mandate aligns to, expressed as a projected increase in global average temperatures by the end of the century	°C
Additional climate change metric	Data quality	The availability and veracity of reported emissions data, classified in the following categories: • Verified - % of the emissions data that is verified (audited or independently verified) • Reported - % of the emissions data that is sourced from actual company reported data • Estimated - % of the emissions data that is estimated, either by the manager or a third party data provider • Unavailable - % of the emissions data that cannot be provided or estimated credibly	% Coverage

In this year's report, we report on all three scopes of GHG emissions. We note below the definitions of each scope.

- **Scope 1** are direct emissions from company owned or controlled sources – this includes heating/cooling of offices/factories and fleet vehicles.
- **Scope 2** are indirect emissions from purchased energy – emissions are created during the production of the energy which is eventually used by the company.
- **Scope 3** are all indirect emissions that occur in the value chain – this includes emissions from the production of purchased goods and services and the use of sold products. There are currently industry-wide issues with reporting scope 3 emissions.

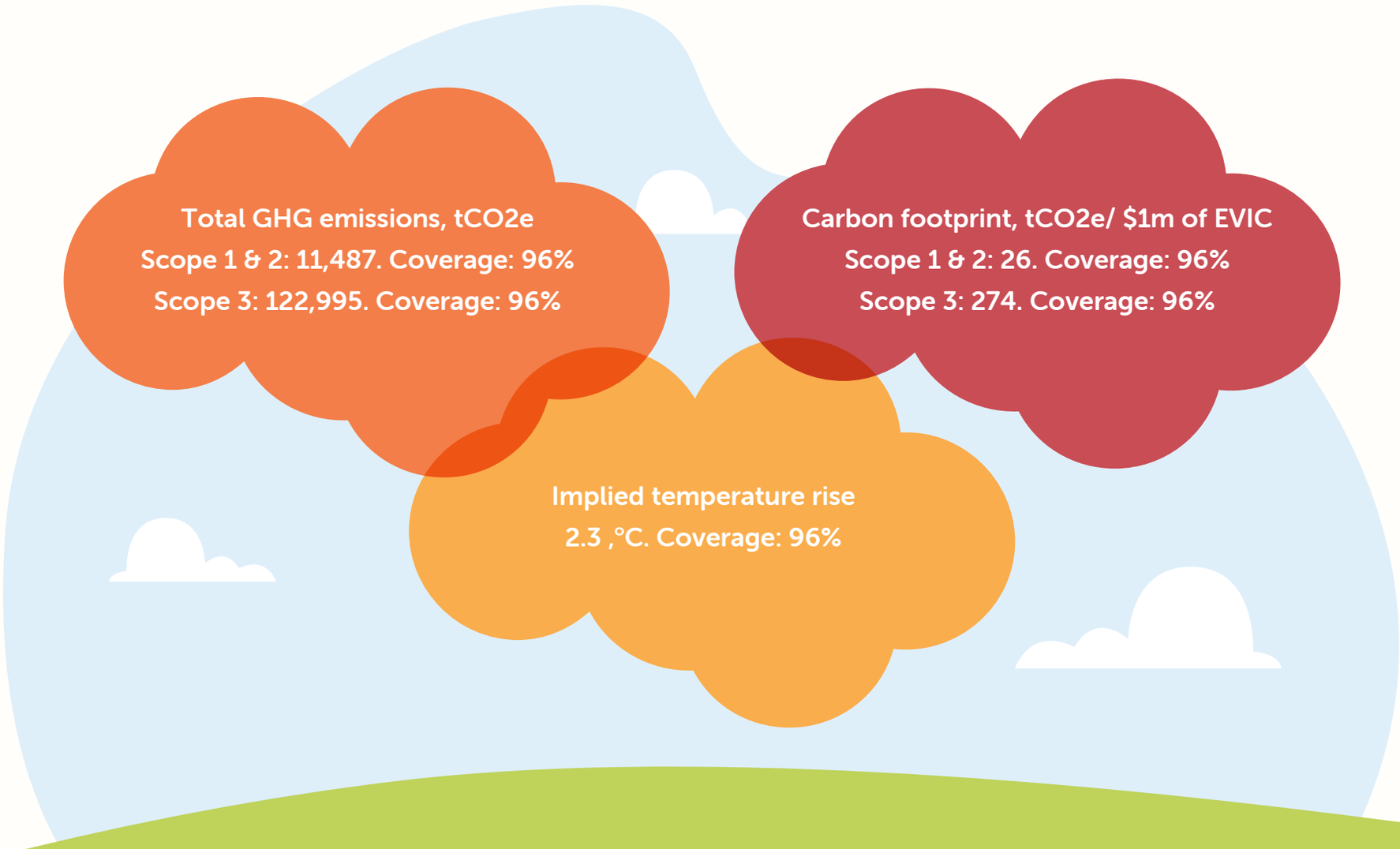


[Source: GHG Protocol]

Disclose scope 1, scope 2, and, if appropriate, scope 3 greenhouse gas (GHG) emissions, and the related risks

We have calculated the four designated metrics for the Cushon Sustainable Investment Strategy (growth phase) as of September 30, 2023.

This year, we have also calculated the carbon footprint for the total Cushon Sustainable Investment portfolio, encompassing both the growth and derisking phase. These results can be found in the Technical Section.



Key takeaways from our metrics analysis

- Cushon Sustainable Investment Strategy's growth phase has continued to decarbonise, demonstrating an approximate 38% reduction in carbon intensity - from 42 tCO2e/$1m of EVIC in 2022, to 26 tCO2e/$1m of EVIC in 2023.
- This year we have also calculated the carbon footprint of the entire Cushon Sustainable Investment Strategy, including all assets across the growth and derisking phases. The 2023 figure is 30 tCO2e/$1m of EVIC. This includes sovereign and cash funds where possible, noting the above discrepancy in precise metric (tCO2e / $m EVIC vs tCO2e / $m GDP). This is discussed in more detail below.
- The carbon footprint metric is dependent on market conditions, with EVIC as the denominator, e.g. if a company's total absolute emissions stay the same, but its market value falls, then the company's emission intensity increases. We will consider this factor while assessing future evolution of this metric.
- We note that two of our corporate bond mandates exhibit a notably higher carbon intensity compared to the rest of the portfolio. This is because the managers may invest in high emitters which have credible decarbonisation plans. This reflects our focus on supporting the transition across all sectors rather than constructing a pure low carbon strategy.
- The growth phase achieved an implied temperature rise of 2.3°C. We expect this figure to reduce over time as the portfolio decarbonises further.
- We note that methodologies and best practice will evolve. We may therefore see short term movements in metrics as a result; our focus will instead be on longer term trends.
- We may consider additional metrics in the future as data improves and best practice evolves.

The carbon footprint of the Cushon Sustainable Investment Strategy retirement phase has also been calculated, as detailed below. The default lifestyle involves a gradual seven year de-risking period, transitioning into a drawdown portfolio comprising index-linked gilts and cash, with specified target allocations below.

Fund	Growth phase	Drawdown phase	Carbon footprint tCO2e/ $1m of EVIC		Implied Temperature Rise
			Scope 1 & 2		°C
Macquarie True Index	75%	40%	23		2.5
Schroder's Climate+	15%	10%	9		1.5
Lombard Odier Target Net Zero	2.5%	6.25%	105		1.9
Wellington Global Impact	2.5%	6.25%	25		2.2
NinetyOne Multi Asset Credit	3.2%	8%	102		2.2
LGIM Future World Corporate	1.8%	4%	28		2.2
LGIM Index Linked Gilts	0.0%	15.0%	133		NA
LGIM Cash	0.0%	10.0%	133		NA
Growth Phase	**100.0%**	**100.0%**	**Growth 2023: 26**	Growth 2022: 42	Growth: 2.3
			Drawdown 2023: 61	Drawdown 2022: 56	De-risking: 2.2

Two main data challenges exist in the above table, related to cash / sovereign emission intensity and private markets (Schroders Climate+) data availability.

Cash / Sovereign Emission intensity: there is no widely agreed methodology for estimating the emission intensity of cash / sovereign investments when compared to typical equities and bonds. In the above table, the metric used for cash and sovereigns is tCO2e / $m GDP (in the year in question). We have included the metric therefore in the interest of transparency, and caution should be exercised when comparing cash / sovereign emission intensity to other portfolios.

Private Markets Emission intensity: our private markets allocation (Climate+) is made via a Long-Term Asset Fund (LTAF), which then itself invests into varied underlying investment structures (pooled funds, co-investment, secondaries etc). This makes sourcing and collecting data difficult, and it was not possible to determine the overall coverage of the emission intensity data for this fund. Private funds also generally operate with lower disclosure requirements, although we have discussed how this can be improved with the asset manager and regularly encourage them to do so.

As a result of challenges in accurately assessing the carbon footprint of sovereign entities, the Wellington metric of 25tCO2e / $1m of EVIC excludes sovereigns, which account to 16% of the Wellington Global Impact fund. Similarly, for LGIM's Index Linked Gilts and Cash funds in the above table, tCO2e / $1m GDP (of the country in question) instead of tCO2e/$m EVIC is used due to the inherent difficulty in calculating the EVIC of sovereigns. This is noted as a data discrepancy in the above table, but we have included the metric regardless, in the interest of transparency. We expect this data differences to become smaller over time as more established methods of estimating emission intensity of government bond and cash funds emerge.

For the above implied temperature rise metrics, we relied on a third-party fund manager to provide us with modelled outcomes for each holding in the portfolio. This was then aggregated by Cushon to calculate fund level and portfolio level implied temperature rise. Note for the Schroders Climate+ fund we have assumed 1.5°C implied temperature rise, since the fund invests almost exclusively in climate solutions. It is currently around 60% invested in UK renewable assets and 40% in global climate related private equity.

Data quality	% of scope 1 & 2 emissions that are:					Scope 3 coverage, %
	Verified	Reported	Estimated	Unavailable	Covered	
Cushon Sustainable Investment Strategy (growth phase)	0.0	71	25	4	96	96

Note that the coverage metrics mentioned above exclude illiquid assets, which account for a 15% target allocation in the growth phase of the Cushon Sustainable Investment Strategy. Although the private markets fund was introduced in May 2023, Schroder's Climate+ coverage data was not available due to the developing nature of the portfolio. We hope that coverage data for the private markets fund will be incorporated into next year's report, with the anticipation that data quality and availability in the private markets space will improve.

More detailed metrics information, at fund level, can be found in the Technical Section.

Evolution from last year

In 2023, our decarbonisation trend continued, resulting in a notable decrease of c.38% from the 2022 growth phase figure (42 tCO2e/$1m of EVIC) to 26 tCO2e/$1m of EVIC. This significant overall reduction was primarily attributed to a decrease in carbon intensity within Macquarie TrueIndex, which accounts for 75% of the growth phase allocation. Note that part of this reduction stemmed from a change in methodology, with company-level data now sourced from external providers, TruCost and ISS, instead of directly from the investment manager. The total reduction in emission intensity without the change of methodology (and sourcing emission intensity from the manager directly) results in a 33% reduction in scope 1 + 2 emission intensity (compared to 38% including the methodology change). Therefore, the change in methodology was only a small component of the observed reduction in emission intensity. Further details can be found below and in the Technical Section.

Equity index emission intensity methodology change for 2023

Last year, the Cushon Investment Office received emission intensity data at the overall fund level for the Macquarie TrueIndex fund (75% of the growth phase) from the fund manager. This year, the Cushon Investment Office has access to underlying company level data from TruCost and ISS, and has used this data to estimate the fund level emission intensity, using the fund level holdings as at 30/09/23.

The data coverage provided by TruCost and ISS for the equity index was 95.7% on an equity-weighted basis. Given the robust coverage of the equity index, we deemed it unnecessary to estimate emission intensity for the remaining portfolio. For other funds within the Sustainable Investment Strategy, emission intensity estimates and data coverage were provided by the fund managers.

Note that TruCost and ISS, as two distinct data providers, cover different companies within the equity portfolio and usually have slightly different intensity estimates for each company. Cushon have used conservative estimates where these is disagreement. Further details on the differences can be found in the Technical Section.

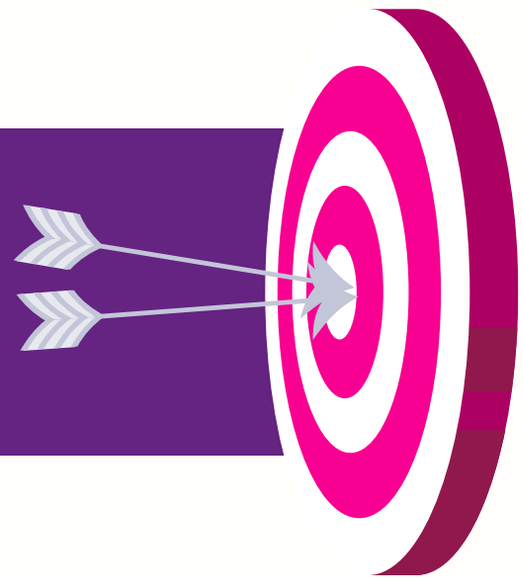
The higher of the two figures (taking either the TruCost value or the ISS value as the preferred match in the event of a company being covered by both providers) for scope 1, 2 and 3 independently was selected to remain conservative, and therefore estimates for scope 1, 2 and 3 for the equity portfolio are 14.0, 9.0 and 304.65 tCO2e/$m invested respectively.

Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.

In 2022, we agreed a new longer term climate target for our default strategy of an 80% reduction in emission intensity vs our 2022 baseline. We opted for a 2030 decarbonisation target and looked to be more ambitious than the market. With our emission intensity this year of 26 tCO2e / $m invested, we have thus far achieved a reduction in emission intensity of 78%, showing strong progress towards our goal. While we do not expect our emission intensity to monotonically decrease year on year, we are confident that we can meet this target, given we have explicitly ensured strong decarbonisation in the design of our mandates.

Our decarbonisation target, set in 2022:

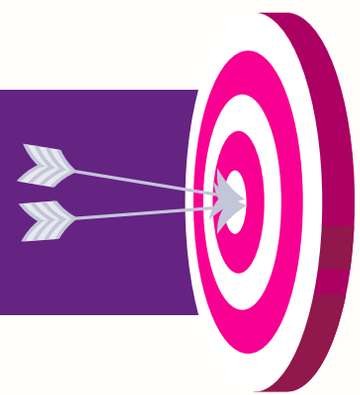
For the Cushon Sustainable Investment Strategy's carbon footprint (scope 1 & 2) to be at least 80% lower than the 2022 baseline by 30 Sep 2030.



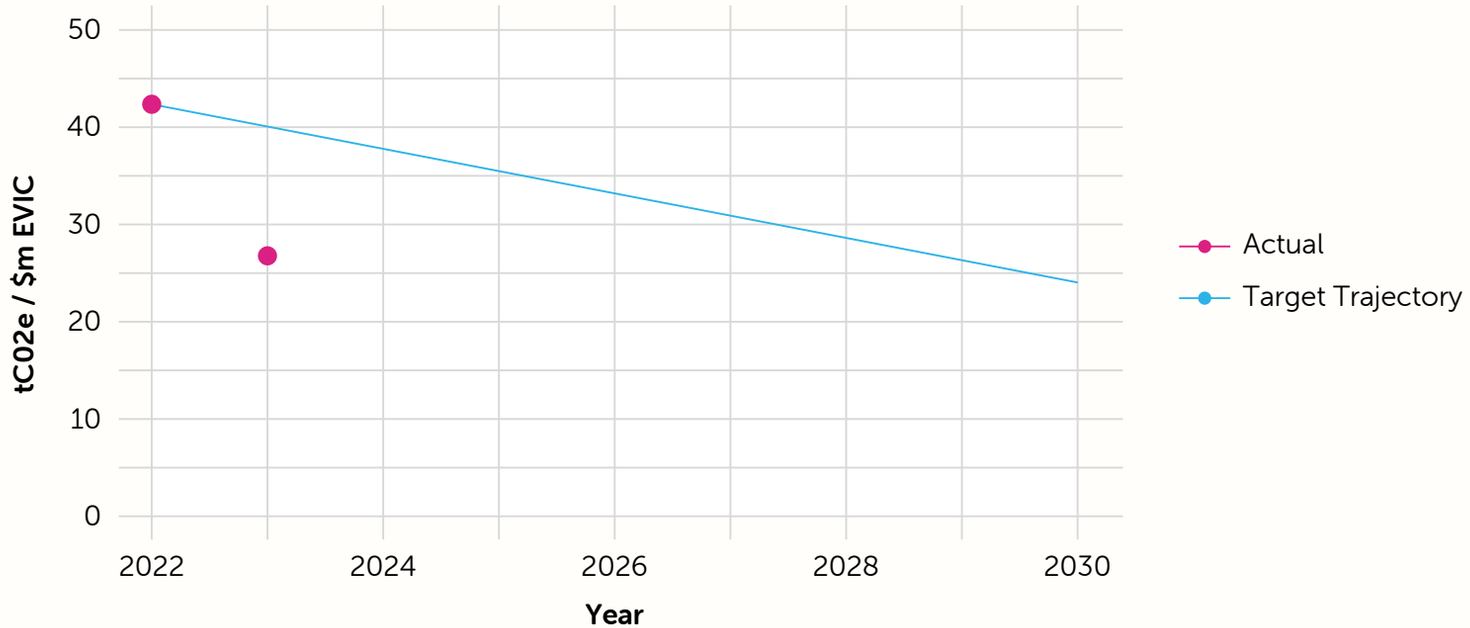
The 2022 baseline is defined as the weighted average carbon footprint (scope 1 & 2) of broad market indices weighted by the Cushon Sustainable Investment Strategy's growth phase asset allocation. As shown below, the 2022 baseline is 118 tCO2e / $m EVIC.

Fund	Strategic asset allocation	Carbon benchmark	Carbon footprint of broad market index (scope 1 & 2)
Wellington Global Impact	2.5%	Bloomberg Global Aggregate	64
Lombard Odier Target Net Zero	2.5%	Bloomberg Global Aggregate Corporates	76
Macquarie True Index	75%	Solactive GBS Global Markets Large and Mid-Cap	122
NinetyOne MAC	3.2%	50 / 50 ICE BoA Global High Yield / Global Investment Grade	117
LGIM Corporate Bonds	1.8%	Bloomberg Global Aggregate Corporates	76
Schroders Climate+	15%	Solactive GBS Global Markets Large and Mid-Cap	122
Total Baseline	**100%**	**-**	**118**

Our target is therefore for the Cushon Sustainable Investment Strategy's carbon footprint (scope 1 & 2) to be at equal to, or lower than, 24 tCO2e / $m invested by 30 Sep 2030.



Comparison of Scope 1+2 Target Trajectory and Actuals



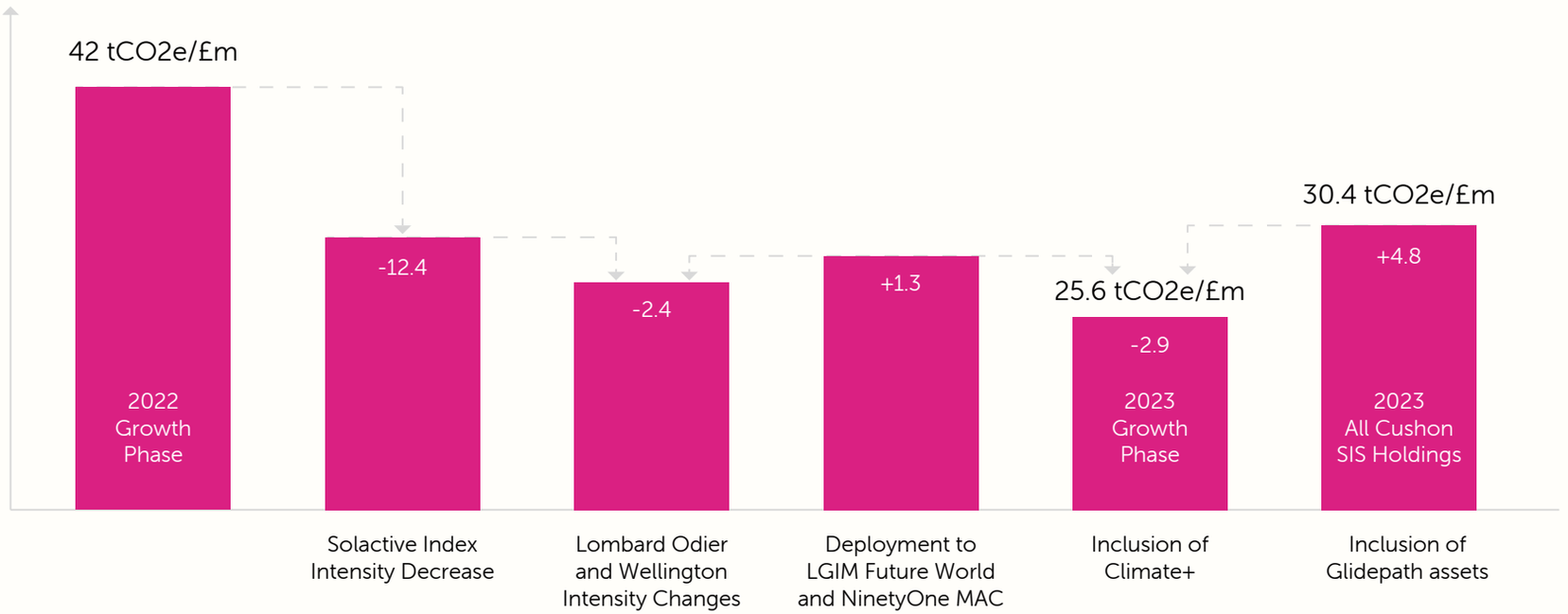
This year's progress against the 2023 target

As displayed earlier, Cushon Sustainable Investment Strategy's growth phase reduced from a a scope 1 + 2 emission intensity of 42 tCO2e/$1m of EVIC in 2022, to 26 tCO2e/$1m of EVIC in 2023. This is significant progress towards reaching 24 tCO2e/$1m of EVIC by 2030, as shown in the below graph.

This has mostly been achieved through two ways: mandate by mandate emission reductions, and the inception of Schroder's Climate+ fund, which targets net-negative emissions by 2030. See below for a more detailed breakdown of each contribution to our emission intensity reduction between 2022 and 2023. Note we expect some volatility in the emission intensity of our default fund growth phase, due to company composition and valuation changes, and do not expect a monotonically decreasing emission intensity.

Contribution Analysis of 2022 vs 2023 Emission Intensity

Biggest contributor to reduction is Solactive Index



Steps Cushon is taking to achieve the target.

While we have made great progress towards our decarbonisation target of 80%, we still have more to do. We acknowledge that there might be bumps in the road and do not expect our emission intensity to decrease monotonically, so we know we have more to do.

We will continue to work with our fund managers to encourage them to better manage their climate risk and to decarbonise further. We are conscious climate integration is a collaborative effort and have strong relationships with our fund managers to further this aim. Decarbonisation is embedded in the design of our mandates, meaning that we expect our emission intensity to come down further and we are confident of meeting our target That being said, we will monitor our fund managers closely to ensure that they adhering to climate integration best practices.

We have also been exploring other low emission, high return asset classes, such as natural capital in order to reduce our emissions and provide strong risk adjusted returns for our members.

Conclusion

Climate change stands as the paramount challenge of our generation, and our actions today will define the future for many generations to come. The next few decades will create new risks and opportunities related to climate change, and we believe it is in the best of interests of our members to incorporate these factors into the running of the Scheme.

We have designed and implemented a default strategy which has climate considerations at its core. We will continue to assess climate risks and consider further opportunities within this space. We hope to also start exploring issues that are clearly interlinked with climate change, in particular nature impacts and the just transition.

We hope to continue our innovation in this space and look forward to reporting on our progress in next year's report.

Issued by the Trustees of the Cushon Master Trust with valuable technical input and advice from the Cushon Investment Office and our appointed investment advisers, Isio.

Technical Section

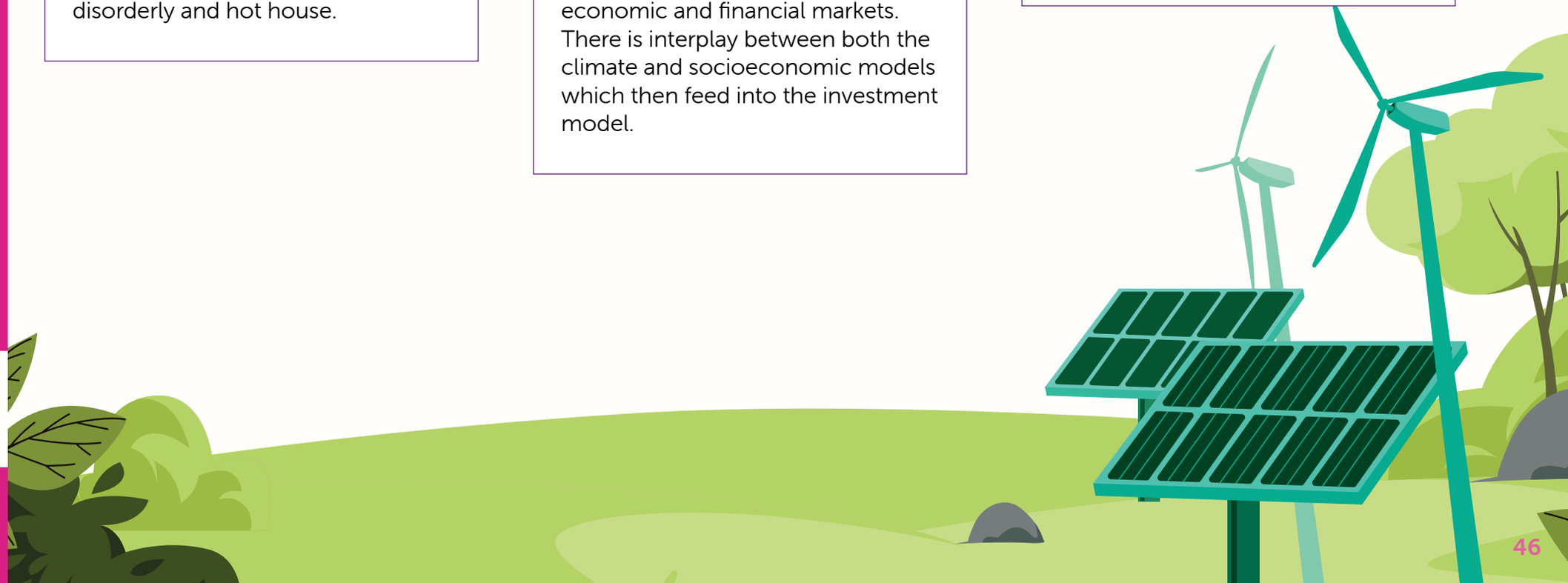
Climate scenario analysis

The scenarios are taken from the three representative scenarios defined by the NGFS. The interpretation and implementation of these scenarios are detailed below, across 3 building blocks:

1. Climate modelling is based on the MAGICC 6 climate model. The MAGICC 6 model runs 600 climate scenario projections and the model takes the median outcome for each climate scenario: baseline, orderly, disorderly and hot house.

2. Socioeconomic modelling is based on the REMIND-MAGPIE general equilibrium model. This assumes that markets are efficient, and sets out traditional economic assumptions around the evolution of economic and financial markets. There is interplay between both the climate and socioeconomic models which then feed into the investment model.

3. The investment model is Isio's SOFIA model. This determines how different asset classes will react under the different climate change scenarios analysed, and across time.



Modelling principles

SOFIA is a stochastic model that simulates a large number of possible future economic outcomes, in which financial conditions develop in a number of different ways, defined by assumptions for average outcomes, range of variability, and inter-dependency between different markets.

The high-level market scenarios are generated by a third-party Economic Scenario Generator (ESG) provided by Moody's Analytics. The ESG is an industry-standard tool that is widely used by financial institutions (e.g. insurers, asset managers, and investment banks). Both the climate scenarios and the underlying economic impacts are provided by Moody's Analytics.

Based on the scenarios generated by the ESG, SOFIA simulates asset-class returns calibrated to Isio Investment Advisory's asset-class assumptions.

SOFIA takes the initial starting position of the assets, and projects these values forward under the simulated scenarios, taking into account any relevant inflows and outflows

SOFIA assumes that assets are rebalanced annually and that the member de-risks in line with the lifestyle strategy.

Modelling limitations

No guarantee can be offered that actual outcomes will fall within the range of simulated results. Actual outcomes may be better than the simulated 95th percentile or worse than the simulated 5th percentile.

The only risk factors considered in the modelling are those that affect the values of pension schemes' assets. The modelling results should be viewed alongside other qualitative considerations including portfolio complexity, governance burden, and liquidity risk.

The model's projections are sensitive to the starting position and the econometric assumptions. Changes to the assumptions can have a material impact upon the output. There can be no guarantee that any particular asset class or investment manager will behave in accordance with the assumptions. Newer asset classes can be harder to calibrate due to the lack of a long-term history.

Metrics – Cushon Sustainable Investment Strategy (growth phase) - as at 30 September 2023

Fund	Current Asset valuation £m	Total GHG emissions tCO2e benchmark		Carbon footprint tCO2e/ $1m of EVIC			Data quality % of scope 1 & 2 emissions that are:					Scope 3 coverage %	Implied temperature rise	
		Scope 1 & 2	Scope 3	Scope 1 & 2	Scope 1 & 2 2022	Scope 3	Verified	Reported	Estimated	Unavailable	Covered		°C	Coverage %
Macquarie True Index	276	7736	102,491	23	36	305	0.0	86	10	4	96	96	2.5	99.6
Schroder's Climate+	55	608	2195	9	N/A	33	0.0	N/A	100	N/A	100	100	1.5	Assumed
Wellington Global Impact	9	275	2955	25	17	264	0.0	70	8	22	78	78	2.2	15.8
Lombard Odier Target Net Zero	9	1175	4877	105	161	435	0.0	26	68	7	94	94	1.9	98.9
LGIM Future World	7	224	2240	28	N/A	277	0.0	86	1	13	87	88	2.2	82
NinetyOne MAC	12	1470	8237	102	N/A	574	0.0	79	11	10	90	89	2.2	51
Total Growth Phase	**368**	**11,487**	**122,995**	**26**	**42**	**274**	**0.0**	**71**	**25**	**4**	**96**	**96**	**2.3**	**95.7**

The total GHG emissions numbers have been adjusted to account for coverage. tCO2e: Tonnes of carbon dioxide equivalent, where CO2e expresses the impact of each different greenhouse gas in terms of the amount of CO2e that would create the same amount of warming. EVIC: Enterprise value including cash.

Percentages may not add to 100% due to rounding

Data as at 30 September 2023, 2022 data as at 30 September 2022

Metrics – Cushon Sustainable Investment Strategy (total portfolio) - as at 30 September 2023

Fund	Current Asset valuation £m	Total GHG emissions tCO2e benchmark		Carbon footprint tCO2e/ $1m of EVIC			Data quality % of scope 1 & 2 emissions that are:					Scope 3 coverage %	Implied temperature rise	
		Scope 1 & 2	Scope 3	Scope 1 & 2	Scope 1 & 2 2022	Scope 3	Verified	Reported	Estimated	Unavailable	Covered		°C	Coverage %
Macquarie True Index	332	9317	123,434	23	36	305	0.0	86	10	4	96	96	2.5	99.6
Schroder's Climate+	51	562	2031	9	N/A	33	0.0	N/A	100	N/A	100	100	1.5	Assumed
Wellington Global Impact	24	715	7688	25	17	264	0.0	70	8	22	78	78	2.2	15.8
Lombard Odier Target Net Zero	24	3059	12,693	105	161	435	0.0	26	68	7	94	94	1.9	98.9
NinetyOne MAC	5	648	3630	102	N/A	574	0.0	79	11	10	90	89	2.2	51
LGIM Index Linked Gilts	6	1014	N/A	133	N/A	N/A	0.0	99	0	1	99	0	1.9	99
LGIM Cash	9	1440	767	133	N/A	71	0.0	73	0	27	73	100	1.9	73
Total Portfolio	**451**	**16,753**	**152,345**	**30**	**N/A**	**277**	**0.0**	**72**	**23**	**5**	**95**	**94**	**2.3**	**94.1**

Sources: TruCost, ISS, Investment managers.

The total GHG emissions numbers have been adjusted to account for coverage. tCO2e: Tonnes of carbon dioxide equivalent, where CO2e expresses the impact of each different greenhouse gas in terms of the amount of CO2e that would create the same amount of warming. EVIC: Enterprise value including cash.

For LGIM Index Linked Gilts and LGIM Cash, the metric tCO2e / $1m GDP was used due to complications with calculating EVIC of a sovereign. Consequently, LGIM did not have a scope 3 figure for both funds.

Percentages may not add to 100% due to rounding

Data as at 30 September 2023, 2022 data as at 30 September 2022

Metrics – Cushon Core (total portfolio) - as at 30 September 2023

Fund	Current Asset valuation £m	Total GHG emissions tCO2e benchmark		Carbon footprint tCO2e/ $1m of EVIC			Data quality % of scope 1 & 2 emissions that are:					Scope 3 coverage %	Implied temperature rise	
		Scope 1 & 2	Scope 3	Scope 1 & 2	Scope 1 & 2 2022	Scope 3	Verified	Reported	Estimated	Unavailable	Covered		°C	Coverage %
Macquarie True Index	10.8	303	4021	23	36	305	0.0	86	10	4	96	96	2.5	99.6
Wellington Global Impact	0.6	19	202	25	17	264	0.0	70	8	22	78	78	2.2	15.8
Lombard Odier Target Net Zero	0.6	90	334	105	161	435	0.0	26	68	7	94	94	1.9	98.9
NinetyOne MAC	0.1	17	96	102	N/A	574	0.0	79	11	10	90	89	2.2	51
LGIM Index Linked Gilts	0.2	27	N/A	133	N/A	N/A	0.0	99	0	1	99	0	1.9	99
LGIM Cash	0.1	19	10	133	N/A	71	0.0	73	0	27	73	100	1.9	73
Total Portfolio	**12.5**	**466**	**3874**	**31**	**N/A**	**310**	**0.0**	**82**	**12**	**6**	**94**	**93**	**2.4**	**94.6**

Sources: TruCost, ISS, Investment managers.

The total GHG emissions numbers have been adjusted to account for coverage. tCO2e: Tonnes of carbon dioxide equivalent, where CO2e expresses the impact of each different greenhouse gas in terms of the amount of CO2e that would create the same amount of warming. EVIC: Enterprise value including cash.

For LGIM Index Linked Gilts and LGIM Cash, the metric tCO2e / $1m GDP was used due to complications with calculating EVIC of a sovereign. Consequently, LGIM did not have a scope 3 figure for both funds.

Percentages may not add to 100% due to rounding

Data as at 30 September 2023, 2022 data as at 30 September 2022

Metrics – Comparison of using each data provider (TruCost vs ISS) as "first port of call" for calculating Macquarie True Index emission intensity

Note that the two data providers cover different entities within the portfolio, with TruCost and ISS covering 91% and 70% of the names, respectively. It is therefore possible to use either TruCost or ISS as the "first port of call" for matching emission intensity data (with the other being used as the "backup" in the case the first does not produce a match). For Scope 1 and 2, the choice of using TruCost or ISS as the primary matching dataset has minimal impact on the final result. However, in the case of Scope 3, there is a significant disparity between the two sources. This is not unexpected given the significant uncertainty in modelling scope 3 emissions at company level. The subsequent table illustrates the difference in outcomes when using TruCost vs ISS as the primary matching dataset.term history.

Variable	ISS First Match (tCO2e / $m EVIC)	TruCost First Match (tCO2e / $m EVIC)	Difference (tCO2e / $m EVIC)	Relative Difference (%)
Scope 1 Intensity	13.27	**13.97**	0.7	5.3%
Scope 2 Intensity	7.83	**9.03**	1.2	15.3%
Scope 1+2 Intensity	21.10	**22.99**	1.9	9.0%
Scope 3 Intensity	**304.65**	53.76	-250.9	-82.4%
Scope 1+2+3 Intensity	325.74	76.75	-249.0	-76.4%

The higher of the two figures for scope 1, 2 and 3 independently has been used for all portfolio emission aggregation calculations. The estimates for scope 1, 2 and 3 for the Macquarie True Index portfolio are therefore 14.0, 9.0 and 304.6 tCO2e/$m invested respectively.

Metrics - Contrasting Emission Intensity in Cushon Sustainable Investment Strategy using TruCost and ISS, Compared to Direct Sourcing from Macquarie.

Metrics -
Contrasting Emission Intensity in Cushon Sustainable Investment Strategy using TruCost and ISS, Compared to Direct Sourcing from Macquarie

As previously stated, the calculated estimates for Scope 1, 2, and 3 emissions in the Macquarie True Index portfolio using TruCost and ISS are 14.0, 9.0, and 296.8 tCO2e/$m invested, respectively. Additionally, we assessed the impact of this change in methodology, by obtaining emission intensity figures directly from Macquarie (similar to last year). This allows us to measure the extent to which the reduction in our portfolio's emission intensity can be attributed to actual portfolio decarbonisation, as opposed to a change in methodology.

Macquarie True Index, as of 30/9/23	Data Source	
	TruCost and ISS	Macquarie
Scope 1+2 Intensity	23.0	26.5
Scope 3 Intensity	304.6	316.8

Consequently, the impacts on Cushon Sustainable Investment Strategy (growth phase):

Cushon Sustainable Investment Strategy (growth phase)	Macquarie True Index Data Source	
	TruCost and ISS	Macquarie
Scope 1+2 Intensity	25.6	28.2
Scope 3 Intensity	274.2	283.3
Absolute Scope 1+2 Emissions	11,487	12,667
Absolute Scope 3 Emissions	122,995	127,084

Furthermore, the impacts on Cushon Sustainable Investment Strategy (total portfolio):

Cushon Sustainable Investment Strategy (total portfolio)	Macquarie True Index Data Source	
	TruCost and ISS	Macquarie
Scope 1+2 Intensity	30.4	34.5
Scope 3 Intensity	276.7	297.03
Absolute Scope 1+2 Emissions	16,753	18,985
Absolute Scope 3 Emissions	152,345	163,512

Glossary

Environmental, Social and Governance ('ESG')

ESG factors relate to the external impact that investing in companies have on wider society, outside of traditional financial factors. These are not only related to the environment and climate change, but also to social issues.

Examples of ESG factors include:

Environmental

- Climate change
- Resource depletion, including water
- Waste and pollution
- Deforestation

Social

- Working conditions, including slavery and child labour
- Local communities, including indigenous communities
- Conflict
- Health and safety
- Employee relations and diversity

Governance

- Executive pay
- Bribery and corruption
- Political lobbying and donations
- Board diversity and structure
- Tax strategy

TCFD

The Financial Stability Board established the Taskforce on Climate-related Financial Disclosures (TCFD) to develop recommendations for effective climate-related disclosures that could promote more informed investment, credit, and insurance underwriting decisions. In turn this enables stakeholders to understand better the concentrations of carbon-related assets in the financial sector and the financial system's exposures to climate-related risks.

The TCFD is committed to market transparency and stability. The TCFD believes that better information will allow companies to incorporate climate-related risks and opportunities into their risk management and strategic planning processes. As this occurs, companies' and investors' understanding of the financial implications associated with climate

change will grow, empowering the markets to channel investment to sustainable and resilient solutions, opportunities, and business models.

In 2017, the TCFD released climate-related financial disclosure recommendations designed to help companies provide better information to support informed capital allocation.

The TCFD's disclosure recommendations are structured around four thematic areas that represent core elements of how organizations operate: governance, strategy, risk management, and metrics and targets. These thematic areas are intended to interlink and inform each other.

Source: https://www.fsb-tcfd.org/about

UN Sustainable Development Goals ('UN SDGs')

The UN has set in place 17 goals, intended to be achieved by 2030, which encourage collective action towards a better and more sustainable future.

These are a series of globally accepted norms that allow investors and companies to align interests.

Physical risks

These are risks which the Scheme is exposed to that arise directly from changing climate conditions. These can be acute, episodic risks such as tornadoes, typhoons, and wildfires, as well as chronic, ongoing risks such as rising sea levels, freshwater scarcity, and supply chain disruption.

Transition risks

These are risks that arise from taking the necessary steps to transition to a low-carbon economy.
These may arise as a result of:

- Regulatory actions
- Technological developments
- Reputational damage
- Market forces

Greenhouse Gases (GHGs)

The globally recognised greenhouse gases considered under the CO2e metric are the seven mandated under the Kyoto Protocol.

These are as follows:

- Carbon dioxide (CO2)
- Methane (CH4)
- Nitrous oxide (N2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulphur hexafluoride (SF6)
- Nitrogen trifluoride (NF3)

CO2e

Different greenhouse gases have different impacts on global warming. In order to standardise this, greenhouse gas emissions are often reported in tonnes of CO2e equivalent (CO2e).

Net Zero

Net Zero is defined as where released emissions into the atmosphere are equal to those emissions taken back out of the atmosphere, through the application of nature-based solutions, man-made technology or the purchase of carbon offsets.

Carbon offsets

Companies reduce their net greenhouse gas emissions through purchasing carbon offset credits. This involves investing in projects which aim to avoid emissions (e.g. renewable energy) or remove carbon from the atmosphere (e.g. reforestation). These projects generate carbon credits, where a single credit is equivalent to 1 tonne of CO2e being avoided or removed from the atmosphere.

This means that companies can reduce their overall carbon footprint without reducing the carbon intensity of their business practices.

Growth Phase

The growth phase refers to the member's investment portfolio allocation when in their younger years, where the portfolio is allocated to a higher proportion of equities and private markets. Seven years before the member's chosen retirement age, this portfolio will gradually de-risk in the interest of protecting their pot value as they near retirement.

Weighted Average Carbon Intensity (WACI)

Weighted average carbon intensity (WACI) represents the emissions per unit of revenue weighted by the value of each company in the portfolio.


cushon