Aviva Master Trust

Climate-Related Financial Disclosure Report for Scheme Year Ending 31/3/2023

(in accordance with the Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021)

Contents

1. A Word from the Chair

Context

From 1 October 2021, the Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 (the "Climate Regulations") introduced new requirements on trustees of some pension schemes to report how they are assessing and managing climate risk. These regulations seek to improve both the quality of governance and the level of action taken by trustees regarding the risks associated with climate change and are based on the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). As part of these requirements, the Trustee of the Aviva Master Trust ('the Scheme') is required to publish an annual report setting out how the Trustee has identified, assessed and managed climate-related risks and opportunities during the Scheme Year.

This report is the Scheme's second Climate-Related Financial Disclosure Report and covers the scheme year ending on 31 March 2023 (the "Scheme Year"). Section 1 of the Report is intended to provide members with a summary of the Trustee's actions and findings during the Scheme Year in question. A glossary of the terms used within the Report can be found in the Appendix.

Application of the Climate Regulations to the Scheme

As of 31 March 2023, the Scheme held in excess of £7.9bn in assets for approximately 450,000 members with over 400 participating employer sections.

Most of the requirements in the Climate Regulations apply to a scheme as a whole. However, the requirements in the Climate Regulations relating to strategy (including scenario analysis) and metrics relate to each "popular arrangement" within a scheme. Broadly, a popular arrangement is one which has £100million or greater of the scheme's assets invested within it or which accounts for 10% or more of the assets in the scheme used to provide money purchase benefits (excluding assets which are solely attributable to Additional Voluntary Contributions).

The Aviva Master Trust has six popular arrangements for these purposes, these are My Future Focus and My Future, the Scheme's standard and alternative defaults, as well as the bespoke defaults used by the Mott MacDonald, WM Morrison Supermarkets, L'Oreal and Thomas Cook sections of the Scheme[1].

A word from the Chair

The Report for the prior scheme year ending 31 March 2022, ("Last year's Report") made clear that the Trustee recognises the material impact that climate change will have on our members, their retirement outcomes and society more broadly. Last year's Report set out how, together with Aviva, the Trustee is committed to ensuring the potential risks associated with climate change (as well as the opportunities arising from the transition to a low carbon future) had been identified, assessed, and managed during that scheme year.

The Trustee is delighted to publish this Report, for the scheme year ending 31 March 2023, which demonstrates continued progress against the targets it has set.

Last year's Report noted that the Trustee had selected the My Future Focus investment strategy as the Scheme's standard default investment arrangement which integrates ESG (Environmental, Social & Governance) considerations into the processes that are adopted to select investments for the strategy and that the Trustee had influenced Aviva and Aviva Investors to consider further ESG enhancements to My Future Focus which were expected to reduce further the carbon intensity of the investments. As set out in the Chair's Statement for the scheme year ending 31 March 2023, these changes were implemented in April and May 2022.

Aviva, the Scheme Funder, has set the ambition of achieving Net Zero by 2040 based on absolute carbon emission reduction overall (Scopes 1,2 & 3) with an initial reduction in the Carbon Intensity of investments (Scope 3, category 15) and as a result has interim ambition levels to reduce carbon intensity, when compared to its relative level as of 31 December 2019 (the baseline date) of 25% by 2025 and 60% by 2030.The Trustee continues to be supportive of this commitment and, via its Investment Committee, is engaged in productive dialogue where it regularly challenges Aviva Investors (as the manager of the Scheme's standard default arrangement) around Aviva's progress against this ambition. The Trustee has adopted Aviva's ambition as its target for My Future Focus and My Future, the Scheme's Standard and Alternative default strategies.

To assess the potential impact of climate change on the Scheme, the Trustee carried out a series of tests on the Scheme's assets within each popular arrangement during the scheme year ended 31 March 2023, known as 'Scenario Analysis'. These are designed to see what impact different climate change outcomes may have on members' money. These calculations indicate that these popular arrangements would be sensitive to financial loss under all temperature rise scenarios. This information has been included in the report.

1 The Stewardship Lifestyle has been treated as a "popular arrangement" for the purposes of this Report as it is an alternative default of the Scheme although it had less than £100million assets as at 30/09/2022.

The Trustee has also assessed, during the scheme year ended 31 March 2023, the level of Carbon Intensity by Revenue (tCO_2e/$m revenue) that corresponds to all popular arrangements, namely the Scheme's Standard and Alternative default investment solutions (My Future Focus, My Future, and the Stewardship Lifestyle[2]) as well as all bespoke default investment solutions with £100 million or more invested in them as of 30 September 2022. The Trustee is pleased to report that these show reductions in Carbon Intensity across the My Future Focus and My Future Growth and Consolidation funds when compared to the baseline date of 31 December 2019, with further reductions observed since 30 September 2021, the date for which this data was last reported on. We view these reductions as a validation of the investment management activity that the funds' managers have taken.

The Trustee is pleased to report most of the Scheme's bespoke default solutions have also achieved reductions over these periods, in some cases to a very significant extent. The Trustee is committed to continuing its engagement with the investment managers of all these solutions to build upon the substantial progress which has already been made.

In addition to the metrics which were reported on in last year's Report, in this Report the Trustee is also publishing an additional data quality score (using an approach that has been defined by the Partnership for Carbon Accounting Financials) which enables the Trustee to track whether data quality levels are improving over time and provide the opportunity to challenge the providers of this data as appropriate.

The Trustee has reviewed ESG impact assessments for the My Future Focus and My Future default investment solutions which evaluate the investment managers approach to integrating ESG factors against the Trustees' ESG Policy. The Trustee has also assessed climate-related risks and opportunities for the sections with bespoke defaults using responses prepared by the relevant investment advisers. Through this approach the Trustee has been able to consider how the Scheme's investment managers on all popular arrangements take account of climate risk when making investment decisions. The Trustee is comfortable with the progress that has been made in this regard and remains committed to continued engagement with all investment advisers to the Scheme.

The Trustee notes the research commissioned by Aviva (undertaken in March 2023) regarding member's perceptions of Aviva's 'ESG Hub' and the associated email communications which were issued. The results of this research were played back to the Trustee in April 2023 and showed members generally felt Aviva were doing a good job of introducing them to ESG and what that means for how their pension is invested. The research also showed the different levels of engagement and understanding within the membership in relation to ESG and investments which will need to be considered within the communications strategy for the Scheme. Whilst accepting there is more to do in this area the Trustee is encouraged by the work Aviva are doing to engage the Scheme's members around ESG and responsible investing and the interest from members in this area.

We hope you find this Report informative and would welcome any feedback.

2 The Stewardship Lifestyle has been treated as a "popular arrangement" for the purposes of this Report as it is an alternative default of the Scheme although it had less than £100million assets as at 30/09/2022.

2. Introduction and Key Findings

Introduction

The TCFD recommendations (and Climate Regulations) focus on four pillars of disclosure:

Governance – trustee governance relating to climate risks and opportunities

Strategy – the actual and potential impact of climate risks & opportunities on the Scheme

Risk Management – how trustees identify, assess and manage climate related risks

Metrics and Targets – to identify and manage climate risks

Sections 3 – 6 of this Report describe the specific actions that the Trustee has taken during the Scheme Year to meet their duties under these four pillars, a summary of this has been given below.

Key actions of the Trustee against the Governance pillar include overseeing the implementation of significant underlying changes to the My Future Focus solution including an upgrade in ESG methodology and the introduction of carbon intensity reduction targets within the regional equity passive funds supporting Aviva's net zero ambitions. The Trustee has also overseen the introduction of new funds to other investment solutions including My Future and several bespoke default funds to better incorporate climate change considerations. The Trustee has received relevant training both from Aviva and their Investment Adviser Isio covering areas such as the additional TCFD reporting requirements (that will impact the Scheme's TCFD reporting for the Scheme Year Ending 31/3/23) and the actions that Aviva is taking in pursuit of its Net Zero 2040 ambition and how these are expected to impact the key Metrics for the Scheme. The Trustee has continued to challenge Aviva Investors around their approach to voting and engagement in respect of the My Future Focus default on behalf of members.

Key actions of the Trustee against the Strategy pillar include the completion of scenario analysis for each of the Scheme's popular default arrangements to understand the impact on member's investments under different temperature rise scenarios. The Trustee has also continued to investigate and address investment opportunities for members arising from the climate transition.

Key actions of the Trustee against the Risk Management pillar include asking its investment adviser, Isio, to carry out an ESG impact assessment of the My Future Focus and My Future Investment Solutions, to evaluate the investment managers' approach to integrating ESG factors against the Trustee's ESG Policy and assessing climate-related risks and opportunities for the sections with bespoke defaults using responses prepared by the relevant investment advisers.

Key actions of the Trustee against the Metrics and Targets pillar include publishing a range of climate metrics for each of the Scheme's popular default investment arrangements which include an additional data quality score metric which enables the Trustee to track whether data quality levels are improving over time and provide the opportunity to challenge the providers of this emissions data, as appropriate. Significantly the Trustee is also publishing Scope 3 emissions metrics for the Scheme Year Ending 31/3/23 in accordance with the new regulatory requirements for this reporting period.

The key findings of this Report have been summarised below.

Key Findings

For the Scheme Year ended 31/03/2023, Greenhouse Gas emissions have been calculated for each of the Scheme's popular arrangements covering Scope 1, 2 and 3, in accordance with the Statutory Guidance. Definitions for Scopes 1, 2 and 3 can be found within the 'Metrics & Targets' section of this Report.

Full metrics results and conclusions are detailed later (in section 6 of this report). However, in summary, for Scope 1 and 2, the Carbon Intensity by Revenue (Sales) and Carbon Intensity by EVIC (Enterprise Value Including Cash) results for the My Future Focus, My Future and Stewardship Lifestyle Investment solutions (the Scheme's standard and alternative default investment arrangements) are shown below:

	Carbon Intensity by Revenue (Sales) $tCO_2e/\$m$ Revenue			Carbon Intensity by EVIC $tCO_2e/\$m$ EVIC	
Fund/Portfolio	**Data as at 31 December 2019**	**Data as at 30 September 2021**	**Data as at 30 September 2022**	**Data as at 30 September 2021**	**Data as at 30 September 2022**
Standard default arrangement					
My Future Focus Growth	186	159	155	68	60
My Future Focus Consolidation	153	126	108	54	50
Alternative default investment arrangement					
My Future Growth	164	124	116	47	42
My Future Consolidation	150	111	84	43	35
Alternative ethical default investment arrangement (added as an alternative default in the current scheme year)					
Stewardship Managed	-	-	47	-	6
Stewardship International Equity	-	-	35	-	4
Stewardship Bond	-	-	88	-	18

As can be seen, there has been a significant reduction in the Carbon Intensity by Revenue (Sales) levels in 2022 when compared with the baseline 2019 dataset and the 2021 data for My Future Focus and My Future. These reductions are shown in percentage terms in the table below. For the Stewardship Lifestyle results are being published for the first time.

Key Findings continued

The Trustee notes that the rate of Carbon Intensity reductions will not be linear year-on-year and will vary to reflect the different climate-related risks and opportunities that arise over time. The table below shows that progress has been made against the baseline year, and this looks particularly strong when considering Aviva's own ambition is to achieve reductions of 25% by the end of 2025.

The year-on-year reductions from 2021 to 2022 reflect the 12-month period to 30 September 2022. The reduction from the baseline date of 31 December 2019 to 30 September 2021 reflect progress made over a much longer period of 21-months.

	Carbon Intensity by Revenue (Sales) tCO_2e/$m Revenue			Carbon Intensity by EVIC tCO_2e/$m EVIC	
Fund/Portfolio	**Data as at 31 December 2019**	**% reduction vs. position as of 31 December 2019 (baseline)**	**% reduction vs. position as of 30 September 2021**	**Data as at 30 September 2021**	**% reduction vs. position as of 30 September 2021**
Standard default arrangement					
My Future Focus Growth	186	-17%	-3%	68	-12%
My Future Focus Consolidation	153	-18%	-14%	54	-7%
Alternative default investment arrangement					
My Future Growth	164	-29%	-6%	48	-12%
My Future Consolidation	150	-44%	-24%	43	-19%

The results also show that the My Future Focus funds continue to have higher Carbon Intensity levels than the respective My Future funds. The Trustee has considered these results and concluded that:

- As was the case in the last year's report, the My Future Focus funds have higher asset allocations to Emerging Markets and to the Utilities, Materials and Energy sectors which generally have higher Carbon Intensity than other territories and sectors. The Trustee believes that moderate amount of such exposures is an important part of providing members with a suitable balance of investment risk and return and allows the Scheme to play a role through its stewardship activity in influencing a global transition to a low carbon world. The Trustee notes that influencing Emerging Markets to play their part can partly be achieved through having investment exposure to companies in those markets.
- the Trustee reviews the Carbon Intensity of the My Future Focus portfolios on a quarterly basis and compare them against a benchmark that is aligned with the strategic asset allocation of the funds. The Carbon Intensity scores for both My Future Focus portfolios are lower than the Benchmarks that have been set for each fund.
- in the 1st Quarter of 2022, the Trustee oversaw changes to the My Future Focus default investment arrangement which have been implemented in the 2nd Quarter of 2022 and are expected to result in a future downward trend in the climate metric scores for My Future Focus. The Trustee will continue to closely monitor Carbon Intensity levels for My Future Focus to track the impact of these changes.

Key Findings continued

This year, the Trustee is including data for sovereign holdings within funds held in the scheme – this is shown separately, see the table below.

	Sovereign intensity tCO_2e/PPP adjusted GDP $'m (30/09/22)
Fund/Portfolio	
Standard default arrangement	
My Future Focus Growth	340
My Future Focus Consolidation	199
Alternative default investment arrangement	
My Future Growth	236
My Future Consolidation	169
Alternative (ethical) default arrangement	
Stewardship Managed	126
Stewardship International Equity	n/a
Stewardship Bond	126

Aviva Master Trust TCFD Compliance Summary

The table below sets out where each of the specific disclosures required under the Climate Regulations is covered in the Report and confirms that, in preparing those detailed disclosures, the Trustee has had regard to the Statutory Guidance. The Trustee has taken independent legal advice to validate the completeness and accuracy of the disclosure requirements set out below:

TCFD Pillar	TCFD required disclosure	Section the disclosure is included in
Governance	a) Describe how the Trustee maintains oversight of climate-related risks and opportunities which are relevant to the Scheme;	Section 3 (see 'Climate Change Governance Framework')
	b) Describe the roles of those undertaking scheme governance activities, in identifying, assessing and managing any climate-related risks and opportunities which are relevant to those governance activities and the process by which the Trustee satisfies itself that the person is taking adequate steps to identify, assess and manage the climate-related risks and opportunities	Section 3 (see tables of accountabilities and delegations against the 4 pillars)
	c) Describe the role of those advising or assisting the Trustee (other than as a legal advisor) with scheme governance activities and the process by which the Trustee satisfies itself that the person is taking adequate steps to identify and assess any climate-related risks and opportunities	Section 3 (see 'Climate Change Governance Framework')
Strategy	a) Describe the time periods which the Trustee has determined should comprise the short, medium and long term	Section 4 (see 'Risks and opportunities over different time horizons'; 'Strategy for the Scheme's standard and alternative default investment arrangements')
	b) Describe the climate-related risks and opportunities relevant to the Scheme over the time periods that the Trustee has identified	Section 4 (see above)
	c) Describe the impact of the climate-related risks and opportunities identified on the Scheme's investment strategy	Section 4 (see 'Strategy for the Scheme's standard and alternative default investment arrangements')
	d) Describe the most recent scenarios which the Trustee has used for its scenario analysis	Section 4 (see 'Scenario Analysis: Climate Value-at-Risk (VaR')
	e) Describe the potential impacts on the Scheme's assets and liabilities which the Trustee has identified in the most recent scenarios they have analysed and, if the trustees have not been able to obtain data to identify potential impacts for all of the assets of the scheme, why this is the case	Section 4 (see 'Scenario Analysis: Climate Value-at-Risk (VaR)'; 'Scenario Analysis: Conclusions, next steps & priorities')
	f) Describe the resilience of the Scheme's investment strategy in the most recent scenarios the trustees have analysed	Section 4 (see 'Scenario Analysis: Climate Value-at-Risk (VaR)'; 'Scenario Analysis: Conclusions, next steps & priorities')
Risk Management	a) Describe the processes which the Trustee has established for identifying, assessing and managing climate-related risks which are relevant to the Scheme	Section 5
	b) Describe how the processes are integrated within the Trustee's overall risk management of the Scheme	Section 5
Metrics & Targets	a) Describe the metrics which the Trustee has calculated and, if the Trustee has been unable to obtain data to calculate the metrics for all of the assets of the Scheme, explain why this is the case	Section 6 (see 'Metric Selection' and 'Limitations in accessing climate data')
	b) Describe the target which the Trustee has set, and the performance of the Scheme against the target	Section 6 (see 'Targets set by the Trustee')

3. Governance

Summary of key activities carried out during the Scheme Year ended 31/03/2023 under the Governance pillar:

Climate Change Governance Framework:

The Scheme's Climate Change Governance Framework is reviewed annually by the Trustee, taking advice from their Legal and Investment advisers to ensure this continues to reflect the latest regulatory requirements. This document is shared with the Scheme's advisors.

The Climate Change Governance Framework:

- clarifies that the Trustee has ultimate responsibility for ensuring effective governance of climate-related risks and opportunities for the Scheme.
- confirms which Committee (i.e., the Scheme's Investment Committee or Trustee Board) has responsibility for each element of the governance of climate-related risks and opportunities.
- confirms the roles & responsibilities that have been established to enable the climate risk reporting for the Scheme and where responsibilities and accountabilities have been allocated/ delegated to the Trustee Board, the Investment Committee, Individual Trustee Directors, Aviva, Isio, investment advisers for the bespoke default investment arrangements and/or the Scheme Secretariat. When appropriate, advice is also sought from Sackers (as legal adviser to the Trustee).

As per the Occupational Pension Schemes (Governance and Registration) (Amendment) Regulations 2022 which came into force on 1 October 2022 the Trustee is required to set objectives for new and existing providers of investment consultancy services to the Scheme, and to review those objectives at least every three years and whenever there is a significant change to their investment policy.

Within the Scheme Year ended March 31st, 2023, the secretary to the Scheme contacted all Investment Advisers to the Trustee and requested that they rated their performance for the period 10/12/2021 to 10/12/2022. All advisers were asked to consider how they have added value to the relevant employer section, their proactivity in identifying emerging risks, the level of service provided and their compliance with regulatory requirements. The Investment Committee gave due consideration to the responses provided at its meeting of 27/02/2023. In the case of Isio (as the Scheme Investment Adviser) this included obtaining a rating regarding how they had assisted the Trustee in aligning the Scheme with its Environmental, Social and Governance objectives. The Trustee accepted a rating of 4 (of a maximum 5) in this area. Also, in the case of Isio, a formal review is conducted on a triennial basis which will specifically consider the advice and support provided to the Trustee in their assessment of climate related risks and opportunities as well as the level of expertise and experience of the personnel providing this advice and support. This review is overseen by the Trustee at full Board level.

As described in the 'Risk Management' section of this Report the Scheme's Standard and alternative default arrangements are subject to an annual 'ESG Impact Assessment', prepared by the Scheme Investment Adviser, which allows for in depth scrutiny by the Trustee of climate related risks and opportunities relevant to them. Through the Investment Committee the Trustee is able to use the information provided by these assessments to address relevant questions and challenges to the asset managers, Aviva Investors and BlackRock.

All other popular arrangements, namely the Scheme's bespoke default funds, are subject to an annual review where the assigned investment advisers are specifically asked to detail for the Trustee the extent to which financially material considerations (including ESG) are taken into account in the design of the default strategy. These activities allow the Trustee to properly consider each popular arrangement in terms of the climate-related risks and opportunities pertinent to it.

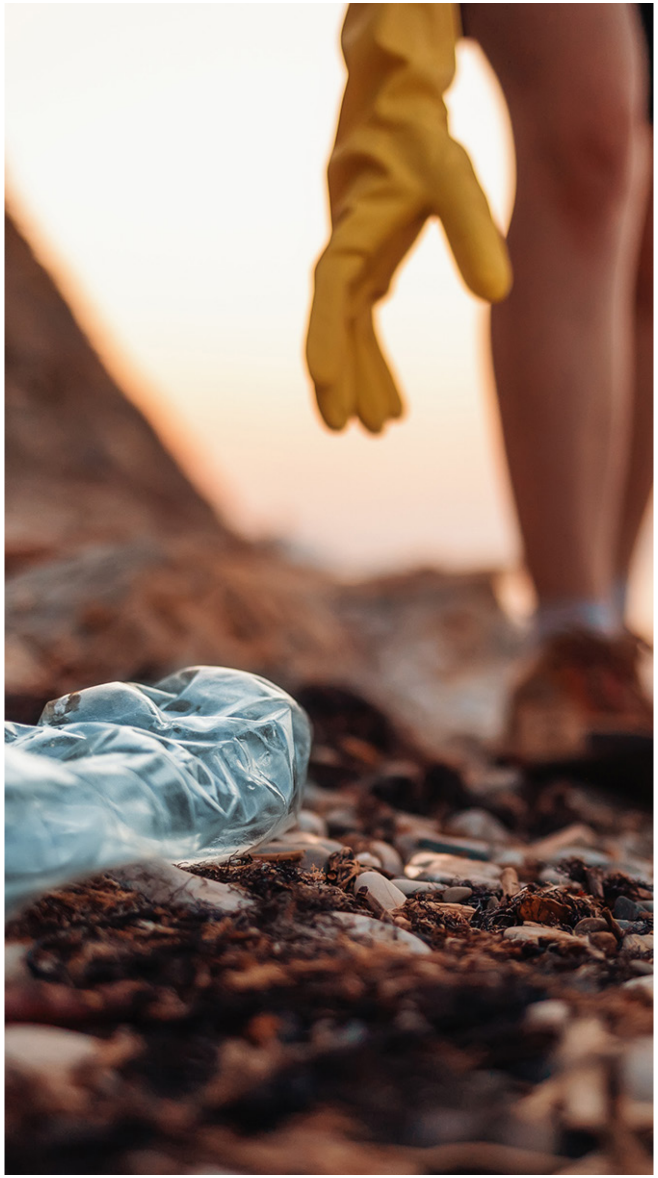
In addition, the Scheme's Standard, Alternative and Bespoke default arrangements are all subject to triennial reviews tabled by the relevant investment adviser for the Investment Committee and which must cover the approach to ESG integration within the investment solution, allowing for further in-depth Trustee examination of its ESG credentials, include in respect to Climate Change.

In respect of Aviva, the Trustee has required the provision of an Assurance Paper to support their review of this Report detailing how the data contained within it has been sourced and modelled and the checks that have been performed. This allows the Trustee to scrutinise the Aviva personnel and processes involved in the production of the Report data.

- o sets out how the Trustee will:
  - define and review climate change governance
  - review, maintain oversight, and record climate change risks & opportunities
  - determine, review, monitor and report key management Information relating to climate change
  - assess the Trustee Director's skills relating to climate change and develop a training plan
  - review climate change development activity
  - produce and communicate the Scheme's annual climate-related financial disclosure Report (this document).
  - [a summary of the roles and responsibilities articulated within the Scheme's Climate Change Governance Framework is shown below:]]

Many of accountabilities and responsibilities of the Trustee are delegated to the Investment Committee (IC) of the Scheme with the Climate Change Governance Framework providing a record of this. The IC Report upwards to the Board on a quarterly basis and, where applicable seeks Board sign-off in respect of delegated activity as per the Climate Change Governance Framework. Where Board sign-off is being sought in respect of governance activity delegated to the IC the Board will typically be provided with the same information as the IC was with confirmation of any decisions taken by the IC in respect of it and the IC's recommendation to the Board if applicable. For example, in respect of this Report the IC accepted a proposal in terms of the metrics to be included and for approach to scenario analysis for the Scheme's popular arrangements at its meeting in February 2023 which was then recommended to the Board and duly ratified in March 2023. This provided the opportunity for the Board to challenge the IC, Aviva, and the Trust's investment adviser, Isio, on the rationale for the selection of these metrics and the approach to scenario analysis.

IC agenda time has been devoted to the discussion of matters pertaining to this Report at their meetings in February, March, and September 2023. Board agenda time has been devoted to these matters at the meetings of March, May, and June 2023, collectively comprising several hours of Trustee time. The rationale for this approach is that a number of items such as metric selection and approach to scenario analysis require approval form the IC in the first instance with subsequent escalation to the Board for sign-off as per the TCFD Risk Governance Framework for the Scheme.



The IC meets (at minimum) once per quarter, providing the opportunity for the committee to conduct any necessary oversight of climate-related, risks and opportunities in respect of the Scheme's popular arrangements. Within the risk register for the Scheme there is a risk assigned to the IC concerning 'Climate' and at each meeting an assessment is made on whether this assigned 'Climate Risk' remains inside tolerance. This assessment specifically considers if the performance of investments within any of the Scheme's popular arrangements is impacted by any physical and/or transition impacts from climate change. The status of this risk is subsequently reported upwards to the Trustee Board (again on a quarterly basis) with escalations made as appropriate. As illustrated by the Framework below the scope of the activity under the remit of the IC in respect of the oversight of climate related risks and opportunities is significantly wider than just the review of this risk.

The IC is assisted with various scheme governance activities by a dedicated Aviva Master Trust Governance team within Aviva. This team is led by the Head of Master Trust who reports into the Managing Director of Aviva's Workplace business. Within this team, an Aviva Master Trust Governance Manager is assigned specifically to supporting the Investment Committee in completing all of the relevant activities within the Climate Change Governance Framework including the production of this Report.

Following the end of the scheme year on 31/03/2023 the Trustee has agreed to a number of changes to the Framework (as shown below in this Report), specifically that the following activities/accountabilities within the Framework could be not only delegated to, but also signed-off by the IC, and the requirement for sign-off by the Board removed.

Governance:

- Review and oversight of Climate Change opportunities for Standard and Alternative defaults.
- Determination/Review of Key Management Information relating to Climate Change.

Strategy:

- Production of Climate Scenario Analysis (including identification of associated actions for Standard/Alternative Default Arrangements and Bespoke Default Arrangements which have assets of £100m or more invested.

Risk Management:

- Investment Manager Climate Change Risk Assessments for Standard/Alternative Default Arrangements and Bespoke Default Arrangements which have assets of £100m or more invested.

Metrics and Targets

- Setting and review of Climate-related Metrics and Targets for Standard/Alternative Default Arrangements and Bespoke Default Arrangements which have assets of £100m or more invested.

As a result of these agreed changes the extract of the Framework included below in this Report is the most up to date version which includes the changes which were made after the end of the scheme year to which the Report relates.

Within the Risk Management section of this Report detail has been provided on how the Trustee has challenged both Isio and the Investment Advisers on the sections with bespoke defaults in assessing climate related risks and opportunities. More Trustee time was given these considerations in respect of the My Future Focus and My Future defaults, where formal ESG impact assessments were requested given the significant proportion of the Scheme's assets which are held in those solutions.

In advance of approving this Report the Trustee has received training from their investment adviser (Isio) covering:

- the implications of the additional TCFD reporting requirements (that will impact the Scheme's TCFD reporting for the Scheme Year Ending 31/3/23)
- processes and approaches adopted by other Schemes with regard to meeting their TCFD reporting obligations
- feedback from tPR and key stakeholders on the TCFD Reports produced by the Scheme and other Schemes

The Trustee has also received training from Aviva covering:

- the key factors incorporated within the Aviva Climate Model and how these impact the Climate VaR results
- the key factors that influence the Carbon Intensity metrics and how these vary between different sectors and territories
- the proposed actions that Aviva is taking to ensure that it meets its Net Zero commitments and how these are expected to impact the key Metrics for the Scheme

Governance accountabilities

The breakdown of accountabilities and delegation for the Governance activities are shown below:

Governance activity	Activity delegated to	Sign off	With support from *	Frequency
Production/Review of Climate Risk Governance Framework (this document)	Investment Committee (IC)	Trustee Main Board	Aviva, Isio	Annual
Production/Review of TCFD Reporting Annual Plan, including timelines	Aviva	IC	Isio	Annual
Review and oversight of Climate Risk (incorporated within the AMT Risk Register with the IC as Risk Owner). Specific risks captured: - Performance of investments is impacted by Physical and/or Transition Impacts from Climate Change - Increased Governance requirements and costs - Current cost constraints within existing defaults limit opportunities to access climate transition funds	IC	Trustee Main Board	Aviva, Isio	Quarterly
Review and oversight of Climate Change opportunities for Standard and Alternative defaults	IC	IC	Aviva, Aviva Investors Isio,	Annual
Review and oversight of Climate Change opportunities for Bespoke defaults	IC	IC	Aviva, Bespoke Investment Advisers	Annual
Development/Review of ESG Beliefs and Policy	IC	Trustee Main Board	Isio	Every 2 years
Determination/Review of Key Management Information relating to Climate Change	IC	IC	Isio	Annual
Reporting of Key Management Information relating to Climate Change	Aviva	IC	IM, Isio	Quarterly
Monitoring of Key Management Information relating to Climate Change	IC	IC	Isio	Quarterly
Assessment of Trustee Climate Change Skills (reviewed in conjunction with this document) and Development of Training Plan (incorporated within Trustee Training Log)	IC	Trustee Main Board	Aviva, Isio	Annual
Review of Climate Change development activity for inclusion within AMT Scheme Calendar assigned to the IC)	IC	IC	Aviva, Isio	Ongoing
Production and Communication of TCFD Annual Report	IC	Trustee Main Board	Aviva, Isio	Annual

* where appropriate the AMT Trustee Main Board will seek counsel and legal advice from Sackers

Strategy accountabilities

The breakdown of accountabilities and delegation for the Strategy activities are shown below:

Strategy activity	Activity delegated to	Sign off	With support from	Frequency
Development and review of Scheme's Approach and Methodology for Climate Scenario Analysis	Investment Committee (IC)	Trustee Main Board	Aviva, Isio	Triennially or following material changes to Investment Strategy
Production of Climate Scenario Analysis (including identification of associated actions):				
• Standard/Alternative Default Arrangements	Aviva with approval IC	IC	Isio, Aviva Investors, Blackrock	Triennially or following material changes to Investment Strategy
• Bespoke Default Arrangements which have assets of £100m or more invested or represented more than 10% of the Scheme's assets	Aviva with approval IC	IC	Bespoke Advisors, Bespoke IM	
• Investment arrangements which have assets of £100m or more invested or represented more than 10% of the Scheme's assets	Aviva with approval IC	IC	IM	
Determination of whether updated Climate Scenario Analysis is required outside the usual triennial cycle due to material changes to Investment Strategy	IC	Trustee Main Board	Aviva, Isio	Ongoing
Escalation of risks associated with Climate Change (arising from strategy reviews) to the AMT Risk Register	IC	Trustee Main Board	Isio	Quarterly
Production of Trustee & IC Meeting Minutes where Climate Change Modelling is on the agenda	Scheme Secretariat	Trustee Main Board, IC	Aviva, Isio	Ongoing

Risk management accountabilities

The breakdown of accountabilities and delegation for the Risk management activities are shown below:

Risk Management Activity	Activity delegated to	Sign off	With support from	Frequency
IM Climate Change Risk Assessment:				
• AMT Standard/Alternative Default Arrangements	Isio with approval IC	IC	Aviva, Aviva Investors, Blackrock	Annual
• AMT Bespoke Default Arrangements which have assets of £100m or more invested or represented more than 10% of the Scheme's assets	Bespoke Advisors with approval from IC	IC	Isio, Bespoke IM	
• Investment arrangements which have assets of £100m or more invested or represented more than 10% of the Scheme's assets	Isio with approval from IC	IC	Aviva, IM	
Escalation of risks associated with Climate Change to the AMT Risk Register	IC	Trustee Main Board	Aviva, Isio	Quarterly
Production of Trustee Board & IC Meeting Minutes where Climate Change Risk Management is on the agenda	Scheme Secretariat	Trustee Main Board, IC	Aviva, Isio	Ongoing

Metrics and targets accountabilities

The breakdown of accountabilities and delegation for the Metrics & Targets activities are shown below:

Metrics & Targets Activity	Activity delegated to	Sign off	With support from	Frequency
Documentation of Scheme's Approach and Methodology to the setting of Climate-related Metrics and Targets	IC	Trustee Main Board	Aviva, Isio	Annual
Setting and review of Climate-related Metrics and Targets:				
• Standard/Alternative Default Arrangements	IC	IC	Aviva, Isio	Annual
• Bespoke Default Arrangements which have assets of £100m or more invested or represented more than 10% of the Scheme's assets	IC	IC	Aviva, Isio	
• Investment arrangements which have assets of £100m or more invested or represented more than 10% of the Scheme's assets	IC	IC	Aviva, Isio	
Measurement of Climate-related Metrics (and comparison with Targets):				
• Standard/Alternative Default Arrangements	Aviva	IC	Isio, Aviva Investors, BlackRock	Annual
• Bespoke Default Arrangements which have assets of £100m or more invested or represented more than 10% of the Scheme's assets	Aviva	IC	Bespoke Advisers, Bespoke IM	
• Investment arrangements which have assets of £100m or more invested or represented more than 10% of the Scheme's assets	Aviva	IC	Isio, IM	
Quarterly Investment Report to include Investment Manager provided ESG and climate change metrics (where available)	Aviva	IC	Isio, Aviva Investors, BlackRock	Quarterly
Production of ESG Report for My Future Focus	Aviva Investors	IC	N/A	Quarterly
Production of Trustee & IC Meeting Minutes where Climate Modelling is on the agenda	Scheme Secretariat	Trustee Main Board, IC	Aviva, Isio	Ongoing

ESG Policy:

An ESG Policy has been established by the Trustee to set out their views on ESG factors including climate change. It considers how they are addressed whilst meeting the overall objectives of the Scheme's investment strategy, as set out in the Statement of Investment Principles, and as outlined in the Trustee's Mission Statement & Strategic Objectives.

The purpose of the Policy is to sit alongside the Scheme's SIP, formalising the Trustee's beliefs on ESG factors as discussed with their legal and investment advisers. The Policy provides a reference point for the Trustee for incorporating ESG factors into investment decision making. It covers those factors that are considered to have a financial impact on investment values, but not non-financial ones such as members' ethical views, although these may be taken into account in determining the self-select options to be made available to members, for example the decision to offer Shariah compliant funds.

The Trustee's aspiration is for the Scheme to pursue a "sustainable" investment approach that integrates ESG in investment decision making in order to generate more sustainable long-term investment returns. The Trustee also believes that the Scheme should seek to invest in a way which is likely to generate a positive and measurable environmental or societal impact whilst generating competitive financial returns.

Both the ESG Policy and the ESG Beliefs above are regularly reviewed by the Trustee taking advice from their investment adviser.

The Trustee's continuing commitment to climate change considerations

The Trustee will continue to ensure that consideration of climate change is fully incorporated within Board and Committee level discussions and decisions. In accordance with this, the Trustee will:

- ensure an ongoing continuous discussion with investment managers and advisers about their approach, risk management, voting and engagement and reporting on climate related matters - as an example of this, the Trustee will continue to actively engage with Aviva and BlackRock to influence further ESG enhancements to the My Future default investment arrangement.
- monitor the implementation and impact of the enhancements made to all popular arrangements; My Future Focus, My Future and bespoke default investment arrangements, and what impact they have on the carbon-related metrics when compared with the previous Scheme Year.
- monitor Aviva's activity to achieve its published Net Zero ambition supported by the My Future Focus and My Future default investment arrangements.
- regularly review and update the Trustee's ESG beliefs and policy and consider whether there is a need to establish a specific climate change policy for the Scheme.

4. Strategy

Summary of key activities carried out during the Scheme Year ended 31/03/2023 under the Strategy pillar:

- A continuation of the Trustee's Strategic Objectives established in the previous Scheme Year is to 'Deliver and maintain measurable high quality investment solutions meeting climate change targets.' The word measurable has been added as part of the Trustee Strategic Objective review within the Scheme Year covered by this Report. The specific areas of focus for the Trustee aligned to this strategic objective are as follows:
  - Investigate and adopt investment opportunities for members arising from the climate transition including through the self-select range.
  - Understand Aviva's plan to achieve its ambition for Net Zero carbon emissions from investments by 2040 and develop a plan to align the Scheme's investments (including consideration of self-select and bespoke investments) with Aviva's medium-term ambition of achieving a 60% cut in the carbon intensity of investments by 2030.
- Work with Aviva on strategic reviews of My Future/My Future Focus, including asset allocation of at-retirement portfolios & ESG integration for My Future. The Trustee agreed that the Aviva climate model, the Climate Value-at-Risk (VaR) approach and its temperature scenarios, would again be utilised to calculate the scenario analysis for the all of the popular arrangements within the Scheme. The Aviva climate model has been developed to enable Aviva plc to track the climate risk associated with its investments and other business-related activities. The associated Climate VaR measure enables the potential impacts of future climate-related risks and opportunities to be assessed in different Intergovernmental Panel on Climate Change (IPCC) scenarios as well as in aggregate.The Trustee believes there are benefits to being consistent with Aviva's approach and particularly noting that Trustee climate targets are linked to Aviva's Net Zero 2040 ambition. The approach enables a range of outcomes to be displayed for the different temperature rise levels. The analysis covers all funds used within the popular arrangements and within those, the assets included are equities (including real estate), corporate bonds and sovereigns (cash is not included).
- The results of the new scenario analysis carried out during the Scheme Year have been reviewed and analysed by the Investment Committee. The Trustee has identified a number of conclusions and next steps from this review which can be found at the end of this Section.
- The Trustee is satisfied from the most recent scenario analysis performed that all popular arrangements have diversified investment strategies which provide a degree of mitigation against rising temperatures. This is demonstrated by the climate VaR charts shown within this section of the Report for My Future Focus and My Future and within the Appendix of this Report for the Scheme's other popular arrangements. It is notable that generally there are differences when comparing the growth and de-risking funds within each popular arrangement, but also when making comparisons across the different popular arrangements. Climate VaR enables the potential financial impacts of future climate related risks and opportunities to be assessed through different Intergovernmental Panel on Climate Change (IPCC) scenarios and in a blended aggregate scenario as well as providing an indication of the resilience of a strategy. Similar to the Report for the scheme year ended 31/03/2022 the charts within this Report demonstrate a broad range of potential outcomes. A lack of resilience would show more extreme downside potential than is evidenced.

Enhancement of the Scheme's Standard Default - My Future Focus

In 2020, the Trustee established the My Future Focus investment strategy as the standard default investment arrangement for the Scheme. As at 31 March 2023, the strategy accounted for 17% of the Scheme's total AUM (Assets Under Management). The Trustee is currently satisfied that the investment manager, Aviva Investors, has embedded ESG considerations into its investment processes across active and index componentry however will review this regularly in line with best practice and ongoing market developments.

Aviva Investors employs active management across multiple asset classes to deliver returns for Scheme members, whilst pursuing positive outcomes from its approach to ESG considerations, including on climate change. Aviva Investors actively uses its voice as a shareholder to support and promote the long-term sustainability of capital markets, economies, and societies.

During the Scheme Year, in April and May 2022, the Trustee has influenced Aviva and Aviva Investors to implement significant underlying changes to the My Future Focus solution. These are as follows:

- Upgrade in ESG methodology used within the regional equity passive funds, moving from excluding the lowest 10% ESG scoring companies to optimising for ESG
- Introduction of carbon intensity reduction targets within the regional equity passive funds supporting Aviva's net zero ambitions (net zero by 2040 with interim targets of 25% reduction by end 2025 and 60% reduction by end 2030, measured against the reference year of 2019)

The Trustee actively reviews proposals to implement changes to the other investment solutions/popular arrangements within the Scheme to better incorporate climate change considerations. In the Scheme Year covered by this Report this has led to the introduction of the following funds:

Investment Solution/ Popular Arrangement	Funds introduced to Investment Solutions/Popular Arrangements within the Scheme year to better incorporate climate change considerations
My Future (the Scheme's Alternative Default Investment Arrangement)	• BlackRock World ESG Insights Equity fund • BlackRock Liquid Environmentally Aware Fund (LEAF) (as a replacement for the BlackRock Sterling Liquidity fund)
WM Morrison Section Default Investment Arrangement	• LGIM Low Carbon Transition Global Equity Index fund (replacing the BlackRock (30:70) Currency Hedged Global Equity Index Fund in the WM Morrison Growth Fund)
Mott MacDonald Section Default Investment Arrangement	• LGIM Low Carbon Transition Global Equity Index fund (replacing all underlying equity funds in the LIP Global Equity Fund) • LGIM Future World Multi-Asset fund (replacing the BlackRock Aquila Market Advantage (ALMA) Fund in the LIP Diversified Fund)
L'Oréal Section Default Investment Arrangement	L'Oréal Growth Blend – Including the following funds in the L'Oréal Growth Blend which would better align it to the Scheme Trustee's ESG beliefs (and take into consideration the Employer's Responsible Investment Policy): • LGIM Future World Fund (34%), hedged to sterling • Baillie Gifford Global Stewardship Fund (33%) • BlackRock (World ex-UK) Equity Index Fund (30%) • BlackRock UK Equity Index Fund (3%) L'Oréal Diversified Blend – Replacing the allocation to the Schroders Dynamic Multi Asset Fund with the Aviva Stewardship Managed Fund, so that the revised allocation will be: • 50% LGIM Diversified Fund • 35% Aviva Stewardship International Equity Fund • 15% Aviva Stewardship Bond Fund

Introduction of an Additional, Ethical Alternative Default – The Stewardship Lifestyle

Within the Scheme Year, the Trustee has designated Aviva's Stewardship Lifestyle (an ethical option) as an alternative investment option which can either be selected by members or be adopted by employers as a default arrangement. Use of this alternative investment option as a default is currently subject to review and agreement by the Investment Committee on a case-by-case basis. The Stewardship Lifestyle was formerly (until September 2022) utilised as a Bespoke default investment option by the Christian Aid section of the Scheme.

The Stewardship Lifestyle invests in 3 underlying funds:

- Stewardship International Equity Fund (global equity)
- Stewardship Bond Fund (investment grade credit)
- Stewardship Managed Fund (70% Stewardship International Equity Fund / 30% Stewardship Bond Fund)

The above funds are centred on a 3 layered approach to ESG investment, including climate-related exclusions on Coal, Oil and Aviation as well as engagement to promote strong sustainability policies and with a particular focus on climate change.

Risks and opportunities over different time horizons

The Trustee has identified that the key climate-risks to the Scheme fall into two categories:

Transition risks – Arise from companies, governments and assets transitioning from high to low carbon goods and services. This is likely to come from four sources:

- Policy and legal, e.g., introduction of carbon pricing, or exposure to litigation from insufficient decarbonisation action
- Technology change, e.g., electric vehicles
- Market preference change, e.g., less demand for single-use plastics derived from fossil fuels
- Reputational risk, e.g., negative press for inaction to mitigate pollution

Physical risks – Relate to the increased likelihood and severity of physical damages from climate change. There are two types:

- Acute risks, namely natural disasters, e.g., floods, storms, and droughts
- Chronic risks, or longer-term impacts, e.g., shifting weather patterns, or resource availability shifts

The Trustee believes there will be significant financial opportunities which arise from the transition to a low carbon economy (e.g., renewable energy and hydrogen vehicles) and adaptation to physical risks (e.g., flood defences or drought resilient crops). It should be noted, however, that the current cost constraints within the existing default investment arrangements limit opportunities to access Aviva's climate transition funds.

The Trustee has identified the below timeframes, which have been determined by a blended view of the climate outlook and the Scheme's membership demographics. In the shorter-term, the Trustee expects transition risks to be greatest; however, in the longer-term, physical risks may ramp up and become more important. The Trustee will review the chosen timeframes on a regular basis.

Strategy for the Scheme's standard and alternative default investment arrangements

Timeframe	Investment Horizon		Climate Horizon		Transitional impact	Physical impact
Short-Term (3 years)	Triennial Strategy Review period		UN PRI Inevitable Policy Response	Improvement in data quality	Medium	Low
Medium- Term (10 years)	Young members invested in Growth funds	Older members de-risking into Consolidation funds as they approach retirement	Interim 2030 targets	Alignment with Sustainable Development Goals	High	Low
Long-Term (30 Years)	Younger members who are currently far from retirement		Investors' & organisations' net zero targets	Physical risks may become dominant	Medium	High

The section below sets out the actions being taken to integrate climate change considerations within the My Future Focus and My Future default arrangements.

My Future Focus

My Future Focus is the standard default investment arrangement for the Scheme.

It offers a diversified exposure to investment markets, through allocations to equity, fixed interest and property. Alongside wider ESG considerations, those related to climate change are integrated throughout the investment process of all actively managed assets, including the explicit factoring in of climate data into the proprietary ESG models used as part of investment selection. The regional equity index allocations are optimised to have a higher ESG score than their respective benchmarks and include climate considerations and carbon intensity reduction targets.

The breadth and depth of ESG expertise in Aviva Investors is significant, with over 40 ESG investment professionals who support the managers who run My Future Focus.

The current strategic asset allocation of My Future Focus incorporates an allocation to emerging market territories to increase diversification and generate higher returns for members over the long-term. It should be noted that these territories typically have higher levels of carbon intensity, so this will impact on the average level of carbon intensity within the funds. However, overall, My Future Focus still has a lower level of carbon intensity than its benchmark (based on the strategic asset allocation for the funds).

The Trustee understands that Aviva Investors will continue to actively, through voting and engagement, use its influence with the companies, in particular within the emerging market territories that it invests in, to encourage them to agree rigorous transition plans to reduce carbon emissions over time.

With regard to investment in Property, Aviva Investors has a defined pathway to achieve Net Zero 2040, through originating new assets that are aligned to the pathway, decarbonising legacy assets through engagement with underlying occupiers, and encouraging occupiers to reduce and offset their emissions within the value chain of their asset or operations.

Strategy for the Scheme's standard and alternative default investment arrangements continued

Early in the 2nd Quarter of 2022, carbon intensity reduction activity for My Future Focus was implemented by Aviva Investors – with results for the scheme year ending 31/03/2023 showing a reduction in carbon intensity of c.17% for the Growth fund and c.29% for the Consolidation fund when compared to December 2019 levels. Reductions have been supported by reducing the weighting to higher emitting assets and re-allocating capital to those assets with a lower carbon intensity profile. Aviva Investors will always balance decisions on this type of activity with the strength of the opportunity to affect future carbon intensity improvements from existing investments through stewardship activities.

The Trustee notes that on-going carbon intensity improvements will be an iterative process, with further progress made as developments in methodologies and data availability permit, in particular, pathways towards Net Zero to be defined and implemented across fixed interest, and as consideration given to specific thematic/impact strategies.

The next milestone is for a 25% reduction in carbon intensity by 2025, with 60% by 2030 and 100% by 2040 (all relative to 31 December 2019). The Trustee meets regularly with specialists from Aviva Investors to maintain a close view of progress.

My Future

My Future is an alternative default investment arrangement for the Scheme.

It offers a diversified exposure to investment markets, through allocations to equity and fixed interest investments. Climate change considerations are partially integrated within the construction of the fund portfolios, and this is complemented by the active approach taken by Aviva Investors to voting and engaging on climate matters.

During the Scheme Year ended 31/03/2023, the My Future Growth and My Future Consolidation funds have increased their allocation to the BlackRock World ESG Insights Equity fund, reaching a target of 50% allocation within each in March 2023 and thereby reducing the level of carbon intensity within the funds.

Within the strategy BlackRock seeks to

1) improve exposure to companies with a higher ESG score, based on BlackRock's proprietary methodology

2) deliver at least a 50% reduction in carbon intensity compared to the FTSE Developed Index, while aiming to maintain a return and risk profile which generally reflects the return and risk profile of the FTSE Developed Index

Also, during the Scheme Year ended 31/03/2023, in December 2022, the switch was completed from the BlackRock Sterling Liquidity Fund (used within the My Future Consolidation, Drawdown and Cash Lump Sum funds) to BlackRock's Liquid Environmentally Aware Fund (LEAF).

Other enhancements being explored include the introduction of regional equity funds using the same methodology as the World ESG Insights Equity Fund on which analysis is currently being completed, and the introduction of an ESG focused global credit fund on which due diligence is underway.

Scenario Analysis: Climate Value-at-Risk (VaR)

The Trustee is required to conduct scenario analysis, at least every three years and following any material changes to the popular arrangements within the Scheme, for a minimum of two scenarios where there is an increase in the global average temperature and for one of those scenarios to consider the global average temperature increase within the range of 1.5oC above pre-industrial levels, to and including 2oC above pre-industrial levels.

When conducting any scenario analysis, the Trustee is also required to consider the nature of the transition to that temperature rise, that could be a "measured orderly transition", a "sudden and chaotic transition" or "a hot house world" where current commitments are not met, and emissions continue to rise.

The Trustee has chosen to carry out new scenario analysis during the Scheme Year the details of which are set out below.

Aviva has developed a Climate Value at Risk (VaR) measure, in conjunction with the United Nations Environment Programme Finance Initiative (UNEP FI) investor pilot project and Carbon Delta to assess the resilience of its business and strategy to different climate scenarios. This measure enables the potential business impacts of future climate-related risks and opportunities to be assessed in different Intergovernmental Panel on Climate Change (IPCC) scenarios as well as in aggregate.

The Trustee and their investment advisers, Isio, have considered and approved the adoption of the Aviva climate model and the Climate VaR approach as being the most appropriate model and measure for the Scheme's Scenario Analysis as it allows the Trustee to execute a quantitative analysis which enables evaluation of scenarios which highlight the risks and opportunities posed by climate change and provides additional inputs into the strategy and investment decisions made on behalf of the Scheme's members.

The Trustee believes there are benefits to being consistent with Aviva's approach and particularly noting that Trustee climate targets are linked to Aviva's Net Zero 2040 ambition. The approach enables a range of outcomes to be displayed for the different temperature rise levels. The analysis covers all funds used within the popular arrangements and within those, the assets included are equities (including real estate), corporate bonds and sovereigns (cash is not included).

Aviva's Climate VaR measure is calculated against the four potential scenarios with respect to climate change identified by the IPCC. Each scenario describes a potential trajectory for future levels of greenhouse gases and other air pollutants and are mapped to likely temperature rises and levels of mitigation required:

- **SSP1-1.9 – mapped to a 1.5°C temperature rise (aggressive mitigation)**
- **SSP1-2.6 – mapped to a 2°C temperature rise (strong mitigation)**
- **SSP2-4.5 – mapped to a 3°C temperature rise (some mitigation)**
- **SSP3-7.0 – mapped to a 4°C temperature rise (no further mitigation).**

In addition, the above scenarios are aggregated to determine the overall impact across all scenarios. This is done by assigning relative likelihoods to each scenario.

Climate VaR is a forward-looking and return-based valuation assessment which aims to assess a portfolio's potential growth or loss (in percentage terms) that may arise as a result of climate related risks and opportunities.

Scenario Analysis: Climate Value-at-Risk (VaR) continued

As a consequence, it is underpinned by a number of assumptions. Detailed information on these assumptions can be found in the Appendix.

A key underlying assumption is that all 4 scenarios assume a gradual path, in which temperatures slowly rise but climate policy is ramped up at varying speeds with a fairly high degree of global co-ordination. It does not consider the transition risk in a more chaotic policy environment, where there is lack of global co-ordination and/or policy action is taken too late and too suddenly. As a consequence, the Aviva Climate VaR measure reflects an underlying assumption that there is a "measured, orderly transition".

Transition and physical risk are modelled consistently until the end of the 21st century. For physical risk, the longer time horizon is required to capture the worst physical impacts of climate change, as these are not likely to manifest themselves until the second half of the century. If a specific use case is based on a shorter time horizon (e.g. 15 years), the financial impacts can be assessed over this time horizon.

Governments are likely to pursue a range of policies as temperatures increase under each scenario. Aviva's modelling of transition and physical risks and opportunities specifically covers the projected costs of policy action related to limiting greenhouse gas emissions as well as projected profits from green revenues arising from developing new technologies and patents. In addition, it captures acute weather impacts such as coastal and fluvial flooding and tropical cyclones, as well as chronic impacts from gradual changes in extreme heat and cold, heavy precipitation and snowfall or wind gusts. Regional sea level rise is an important input to the risk model and constitutes a key driver of coastal flooding impacts. It is important to note that the changes in acute and chronic impacts can also have a positive as well as negative effect on individual companies or instruments.

For both corporate bonds and equity securities, the difference between the market value and the adjusted value after factoring in future climate change costs and/or revenues is measured (i.e. the impact relative to current climate conditions and emissions trajectory). To estimate the impact in a consistent way when a company has issued both shares and bonds, the Merton model[3] is used. This model enables the impact on a business as a whole to be translated into a change in value of its corporate bonds and equity securities. As both costs and opportunities are covered, the Climate VaR can be either negative or positive depending on the balance of future anticipated carbon-related costs and revenues for individual companies or instruments. MSCI has also developed a methodology for estimating the transition exposure of property assets which Aviva has used for both direct real estate and real estate-linked debt holdings.

To assess these risks and opportunities, Aviva has adopted a Building Block Approach. To assess the overall impact of climate-related risks and opportunities across all scenarios, the relative likelihoods or probabilities of each scenario needs to be assigned. To do this Aviva, has considered amongst other things the current scientific analysis of the likely trajectory of emissions as well as policy commitments made by countries to reduce emissions.

The Trustee has carried out scenario analysis across the Scheme's assets within all of its popular arrangements.

Climate VaR calculations have been produced for the funds that constitute the Scheme's popular default investment arrangements and track how outcomes have improved from 31 December 2019 to 30 September 2022. This data can help the Trustee to track improvements over time and helps the Trustee to assess the impact of the investment actions expected of the investment manager.

Below is shown the Climate VaR (in percentage terms) for the funds that are incorporated within the My Future Focus and My Future default investment arrangements at 30 September 2022.

Within the Appendix is also shown, where available, the Climate VaR (in percentage terms) at 30 September 2022 for the funds that are incorporated within the Scheme's other popular arrangements (including the alternative and bespoke default investment arrangements).

The Climate Value-at-Risk scenario analysis compares a plausible range of outcomes (5th to 95th percentile) from the Climate VaR scenario analysis for four different temperature rise (TR) scenarios; a 1.5°C TR, a 2.0°C TR, 3.0°C TR and a 4°C TR. Our analysis also provides an aggregate view of these four temperature rise scenarios.

The teal section shows the range of outcomes (5th to 50th percentile) that have the least adverse impact on VaR. The grey section shows the range of outcomes (50th to 95th percentile) that have the most adverse impact on VaR. The vertical line represents zero impact.

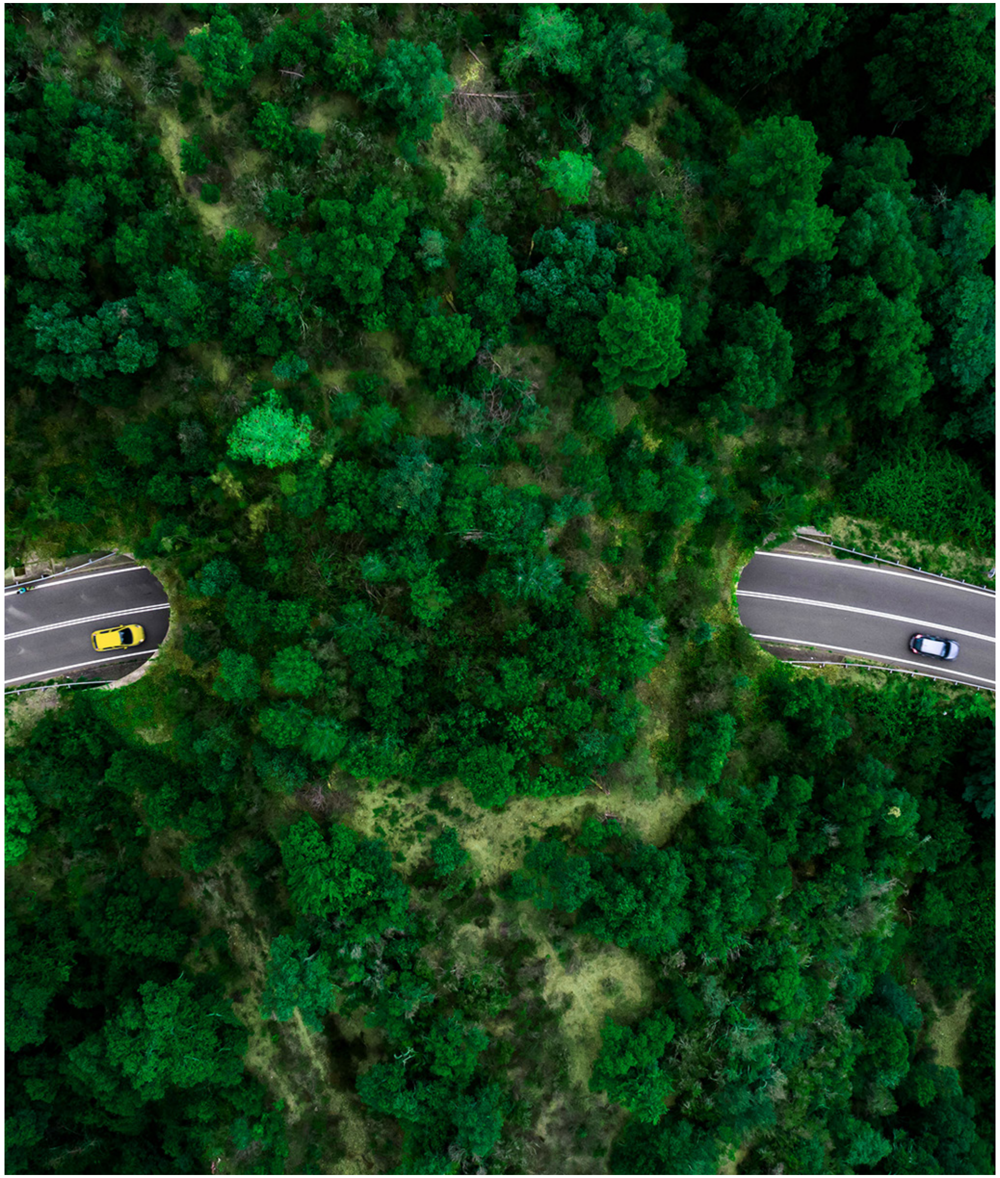
The joining point between the teal and grey sections is the median outcome value.

At present, due to the high level of estimation as well as gaps in asset class coverage, Aviva is not able to publicly report the actual percentage amounts for the Climate VaR. However, the Climate VaR percentage results for each of the popular arrangements are represented on the same scale to enable comparability with the baseline between negative and positive impacts of each temperature rise scenario pinpointed.

3 Analysts and investors utilise the Merton model to understand how capable a company is at meeting financial obligations, servicing its debt, and weighing the general possibility that it will go into credit default

Scenario Analysis: Climate Value-at-Risk (VaR) continued

Climate VaR has been calculated for the individual funds/portfolios. In reality, most members' assets will be invested in line with the different lifestyle strategies within the popular arrangements, first investing in the growth portfolios (which consist of higher proportions of equity investments) before transitioning into consolidation portfolios (which consist of higher proportions of bond and cash investments). Therefore, as members approach retirement, their lifestyle assets will be held in lower risk investments and in turn are expected to be less adversely affected under the scenarios shown. The Aviva climate model does not explicitly produce Climate VaR calculations to show the VaR at different lifestages. However, within the Appendix, we have shown the respective portfolio allocations and glidepaths that apply at different lifestages within each of the Scheme's popular default investment arrangements. This information can be utilised to consider what the respective impact would be for the different age cohorts of members at different points in their lifestyle for each of the Scheme's popular default investment arrangements.



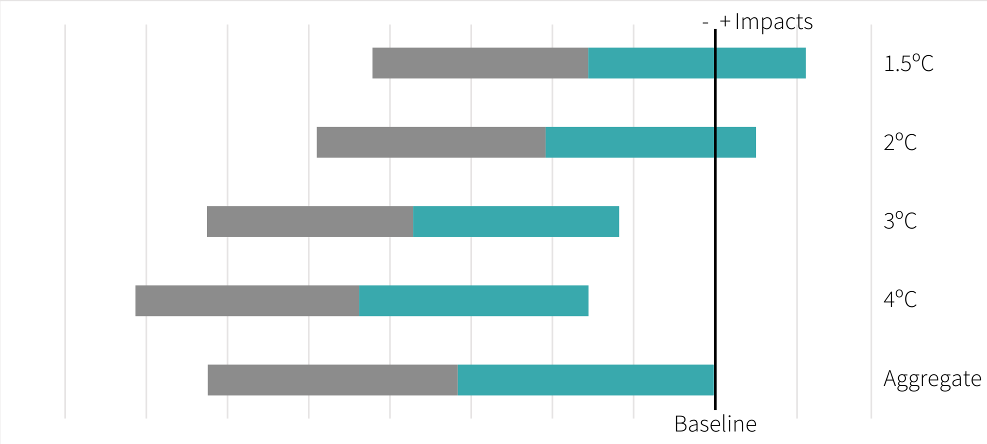
Key for Graphs

(teal)	Shows the range of outcomes (5th to 50th percentile) that have the least adverse impact on VaR
(grey)	Shows the range of outcomes (50th to 95th percentile) that have the most adverse impact on VaR
TR1.5	Climate VaR scenario analysis based on 1.5°C Temperature Rise
TR2	Climate VaR scenario analysis based on 2°C Temperature Rise
TR3	Climate VaR scenario analysis based on 3°C Temperature Rise
TR4	Climate VaR scenario analysis based on 4°C Temperature Rise
Aggregate	Aggregate Climate VaR scenario analysis based on 1.5°C, 2°C, 3°C and 4°C Temperature Rises

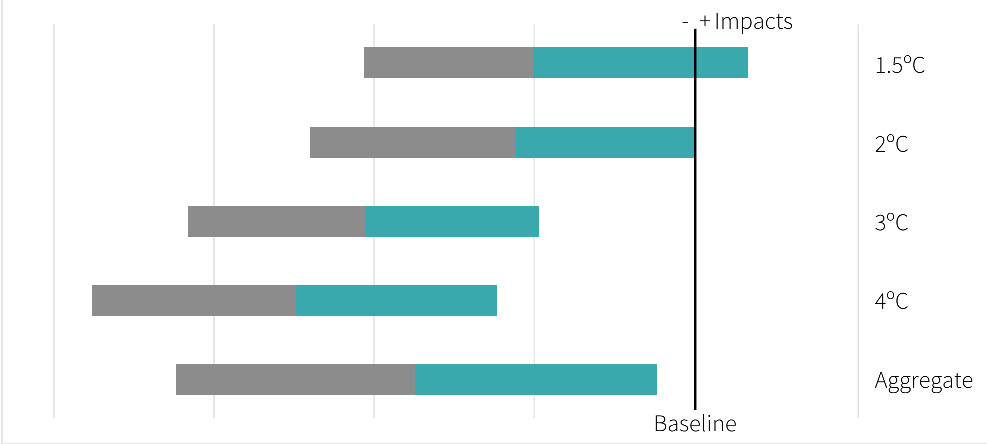
Scenario Analysis: Climate Value-at-Risk (VaR) continued

Standard default investment arrangement – My Future Focus

My Future Focus Growth fund

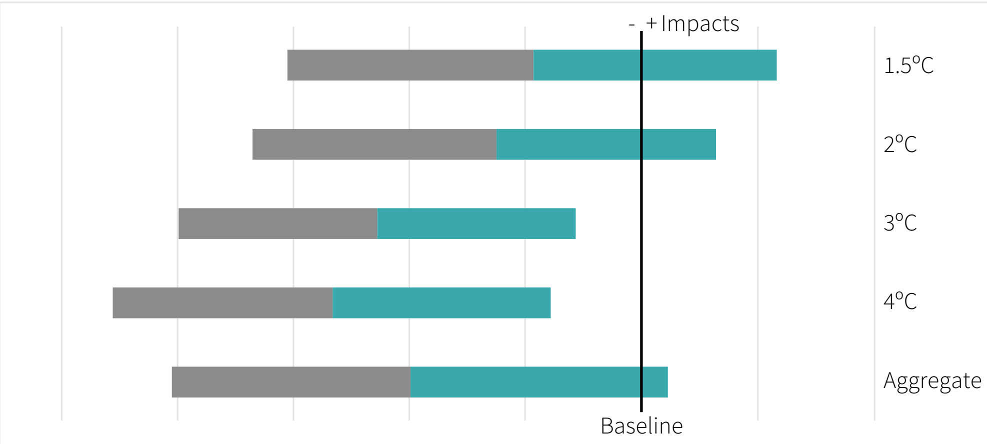


My Future Focus Consolidation

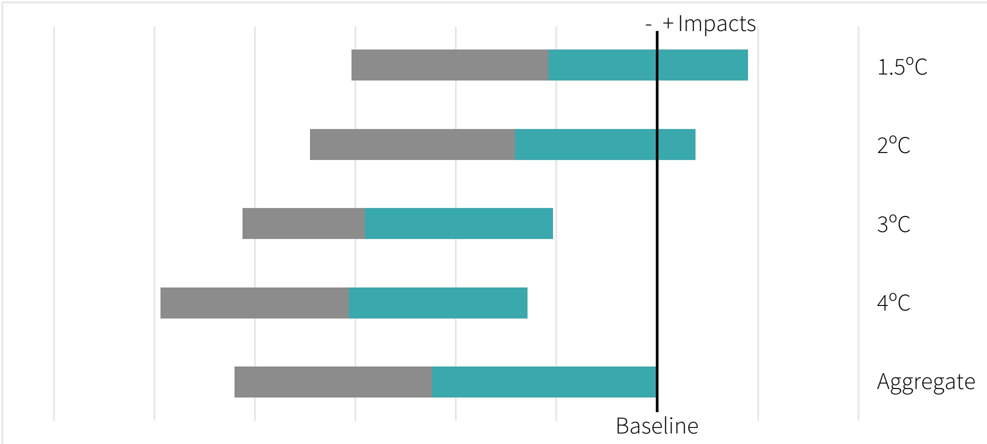


Alternative default investment arrangement – My Future

My Future Growth fund



My Future Consolidation



Scenario Analysis: Conclusions, next steps & priorities

The Trustees have identified three timeframes by which they expect the risks and opportunities associated with climate change to materialise. The conclusions and next steps that relate to these timeframes are shown below:

Timeframe	Conclusions and Next Steps
Short-Term (3 years)	In the shorter-term, the Trustee formally reviews the Scheme's popular arrangements at least every three years. Over the last few years improvements have been made to better integrate ESG into the underlying mandates – these should have a positive impact on how the Scheme addresses climate risk and opportunities in this Short-Term timeframe.
Medium- Term (10 years)	During in Q2 2022, a number of ESG upgrades were made to the My Future Focus Solution, including a carbon intensity reduction pathway into the regional equity funds, targeting annual reductions in the level of carbon intensity in support of Aviva's Net Zero 2040 goal and an improved model to achieve an ESG score uplift relative to benchmark. These upgrades followed engagement by the Trustee with Aviva Investors in Q1 2022. The Trustee will remain engaged with Aviva Investors on the ongoing climate strategy across the My Future Focus Solution. During the Scheme Year ended 31/03/2023, the My Future Growth and My Future Consolidation funds have increased their allocation to the BlackRock World ESG Insights Equity fund, reaching a target of 50% allocation within each in March 2023 and thereby reducing the level of carbon intensity within the funds.
Long-Term (30 Years)	The climate scenario modelling shows that climate-related risks, which are increasing even in the short to medium term, are likely to amplify to very significant levels over the longer-term. The extent of this impact is largely dependent on the temperature pathway taken by global markets. A lower temperature increase, such as the 1.5°C level, would be expected to be less adverse on the outcomes of members, although current estimates suggest a very high likelihood of this level being exceeded.

- Changes to the My Future Focus default investment arrangement and the default investment arrangements for the Mott MacDonald and WM Morrison sections were implemented within the Scheme Year ended 31/03/2023. These changes have enhanced how the Scheme is responding to climate risks and opportunities.
- For the baseline (2019), 2021 and the 2022 data sets, the Climate VaR calculations indicate that the Scheme's popular arrangements would be sensitive to financial loss under all four IPCC temperature rise scenarios (Climate VaR data is shown in full, for all funds within the popular arrangements, in the Appendix).
- The potential impacts for the My Future Focus and My Future Consolidation Funds were significantly smaller and less variable than those for the My Future Focus and My Future Growth Funds. The degree of difference in the levels of impact between the different Temperature Rise scenarios was also less extreme.
- Most members' assets will be invested in line with the lifestyle strategies, first investing in the growth portfolio before transitioning into the consolidation portfolio. The consolidation, pre-retirement, bond, and cash portfolios appear to be less vulnerable to financial loss than the Growth portfolios, which is likely to be due to the Growth portfolios being more heavily weighted towards equities.

The Trustee, in conjunction with Aviva, Aviva Investors and investment advisers, will continue to assess the investment implications of climate change on its popular arrangements alongside a wide variety of financially material considerations. The Trustee expects to further develop its climate transition strategy at Scheme level, and engage with its managers, and the underlying investment companies (via its managers), to achieve their objectives.

5. Risk Management

Summary of key activities carried out during the Scheme Year ended 31/03/2023 under the Risk Management pillar:

- The climate change risk incorporated within the Scheme's Risk Register is reviewed by the Scheme's Investment Committee on a quarterly basis. Key considerations within this risk are that the performance of investments is impacted by physical and/or transition impacts from climate change and that the current cost constraints within the existing default investment arrangements limit opportunities to access Aviva's climate transition funds. The Trustee uses the risk register to regularly consider different climate risks that may affect a members' benefits, including an assessment of which climate change risks are the most material and therefore set prioritisation of risks. The Trustee has not considered if new risk management tools are needed to support management of climate-related risks in the scheme year ending 31/03/2023. The need for such tools has not been suggested by the Scheme investment adviser or by Aviva, The Trustee does appreciate that as climate-related reporting requirements evolve this position may need to be explored. The use of new risk management tools will be considered by the Trustee in respect of the Report for the scheme year ending 31/03/2024 and the Trustee will engage with Aviva as well as seeking appropriate advice regarding their use.
- As set out in the Strategy section of this Report, the Trustee has arrived at a view as to how the risks associated with climate change are likely to manifest over different timescales. The Trustee acknowledges that climate-related risks, especially physical risks need to be considered over considerably longer timeframes than that which is typically applied to the traditional assessment of risks within the Risk Register. The Trustee has sought advice regarding the factors it should consider regarding such risks.
- The Trustee has taken steps to ensure that it, and those it engages to advise of assist with governance and risk management, have a general understanding of climate change concepts and the potential impacts of climate change. Detail on this is provided in the 'Governance' section of this Report.
- As stated in the Governance section of this Report, In the case of Isio as the Scheme Investment Adviser, the Trustee has set specific objectives against which it assesses performance which includes a rating regarding how they have assisted the Trustee in aligning the Scheme with its Environmental, Social and Governance objectives.
- The Trustee asked its investment adviser, Isio, to carry out an ESG impact assessment of the My Future Focus and My Future Investment Solutions, to evaluate the investment managers' approach to integrating ESG factors against the Trustee's ESG Policy. As the Trustee has delegated the day-to-day management of the Trust's investments to the fund managers, it is important that the Trustee understands how they consider financial material considerations, such as ESG and climate-related risks and opportunities. As part of this analysis, the Trustee's investment adviser also proposed a number of areas for consideration ('actions') for engaging with the Scheme's investment managers going forward. This assessment was considered, reviewed, and approved by the Investment Committee.
- An ESG Impact Assessment was not requested for the Stewardship Lifestyle, having only been governed as an alternative default of the Scheme since September 2022. The Trustee may ask its investment adviser to produce such an assessment for this default alongside those for My Future Focus and My Future for the scheme year ending 31/03/2024.
- The Trustee has also assessed climate-related risks and opportunities for the sections with bespoke defaults using responses prepared by the relevant investment advisers.

Summary of ESG impact assessments (and conclusions) for My Future Focus and My Future default investment arrangements

The assessments focused on six core areas of ESG integration: firm-level, strategy-level, product-level, stewardship, reporting, collaboration. These six underlying scores were then aggregated to provide a single overall ESG score with a separate climate score. As part of the deep dive into each strategy, Isio also suggested possible areas of improvement. The key findings of the assessment were:

- Both default strategies reflect strong ESG consideration at a firm level as a result of Aviva's priorities.
- Climate and stewardship reporting and collaboration across My Future and My Future Focus are fairly robust.

My Future Focus

The My Future Focus strategy is comprised of the My Future Focus Growth, Consolidation, Annuity, Cash Lump Sum and Drawdown funds. As at 31/03/2023 the total assets within all funds comprising the strategy was just over £1.3bn which is approximately 17% of the Scheme's total AUM.

Overall, My Future Focus scored higher than My Future, with an ESG score of 3.0 (out of 4). This is largely due to the additional consideration given to ESG integration at the product and strategy level. The climate score for My Future Focus was 2.3 (out of 4).

The Aviva My Future Focus lifestyle integrates ESG throughout the lifestyle leveraging Aviva Investors' in-house capabilities.

Isio were pleased to see a good level of ESG consideration and integration within each of the underlying asset classes, passive equity in particular, leading the way with ESG optimisation.

Isio advised that to improve the ESG integration at a strategy-level, Aviva could look to make ESG and climate a factor when setting the top-down strategy. An allocation to an impact mandate (public or private) it was noted, could also increase the product-level integration or, alternatively more explicit decarbonisation targets. The Trustee, in conjunction with Aviva, will give consideration to these proposals alongside a wide range of other factors.

My Future

The My Future strategy is comprised of the My Future Growth, Consolidation, Annuity, Cash Lump Sum and Drawdown funds. As at 31/03/2023 the total assets within all funds comprising the strategy were just over £4.7bn which is approximately 60% of the Scheme's total AUM.

Overall, My Future scored reasonably well with an ESG score of 2.5. Isio advised this is predominantly supported by the viva firmwide polices, collaboration and robust reporting. The climate score for My Future was 1.6 (out of 4).

The Aviva My Future lifestyle integrates ESG through the BlackRock ESG Insights fund. This fund represents c. 50% of the portfolio's equity allocation.

Isio noted that strategy and product level ESG integration are two areas that could be improved with limited integration currently or introducing more quantifiable ESG objectives and integrating these into the investment process of all mandates would improve the individual and overall strategy score, as currently these are only being contributed to by the 50% equity allocation to the BlackRock World ESG Insights equity fund.

Isio recommended a number of actions and next steps which the Trustee agreed to pursue in order to improve ESG integration. The Trustee, in conjunction with Aviva and BlackRock, will give consideration to these proposals alongside a wide range of other factors.

Summary of climate risk and opportunities considerations for bespoke default investment arrangements

Mott MacDonald Section

The investment adviser for this section is Lane Clark & Peacock LLP ("LCP"). The default for this section is 'LIP Drawdown,' and consists of four white labelled funds (LIP Global Equity, LIP Diversified, LIP Bond and LIP Liquidity) each determined by the underlying asset classes. As at 31/03/2023 the total assets within all four funds comprising this default was just under £459.7m which is approximately 30.5% of bespoke and employer specific AUM.

The Trustee notes the changes made to the default on this section within the Scheme Year to improve ESG integration, specifically:

- The replacement of the underlying funds within the LIP Global Equity Fund with a low carbon tilted equity fund (the Legal & General ("L&G") Low Carbon Transition Global Equity Index Fund), the "tilting" aspect referring to the fact that certain companies are invested in slightly more or less than a standard equity index, based on the level of carbon emissions associated with each company. The Trustee notes a significant reduction in carbon exposure as a result – the L&G Low Carbon Transition Global Equity Index Fund having around two-thirds less emissions compared to a standard global equity index, with a target to reduce emissions further over time. The Trustee notes this emissions reduction is achieved without wholesale exclusions of sectors, for example by not investing in fossil fuels. If such blanket exclusions were applied, then performance may differ significantly to a standard global equity index fund, and performance may be more volatile as the portfolio would be less diversified. The Trustee notes that the L&G Low Carbon Transition Global Equity Index Fund has been designed to address and reduce climate change risk which it believes to be financially material.

- The replacement of one of the underlying funds in the LIP Diversified Fund (the BlackRock ALMA Fund) with a fund that has better ESG credentials (the L&G Future World Multi-Asset Fund). The L&G Future World Multi-Asset Fund incorporates ESG by "tilting" exposures according to ESG scores. The "tilting" aspect referring to the fact that the equities and bonds of certain companies are invested in slightly more or less, based on how well they score from an ESG perspective.

The Trustee notes that L&G integrate their Climate Impact Pledge into all their funds, which addresses other factors of ESG: L&G disinvest from companies that have poor ESG credentials who are not taking action to address these issues, and as such those companies that L&G believe will be negatively affected financially. This is aligned with the Trustees' approach/framework, voting and engagement, and collaboration ESG beliefs.

The Trustee notes that the Mott MacDonald LIP Global Equity Fund and Mott MacDonald LIP Diversified Fund are both available for members to self-select, therefore integrating ESG into the self-select range for this section as well as the default strategy.

Summary of climate risk and opportunities considerations for bespoke default investment arrangements continued

Wm Morrison Section

The investment adviser for this section is Lane Clark & Peacock LLP ("LCP"). The default for this section is 'Cash Lump Sum Lifetime,' and consists of two white labelled funds (Morrisons Growth and Morrisons Pre-Retirement) together with the BlackRock Sterling Liquidity Fund. As at 31/03/2023 the total assets within the two white labelled funds within this default was just under £474.6m. The Morrisons Growth fund, at just under £428.9m of assets, represents the single largest bespoke fund by assets under management (AUM), accounting for approximately 28% of bespoke and employer specific AUM.

The Trustee notes the changes made to the default on this section within the Scheme Year to improve ESG integration, specifically:

- The replacement of the underlying funds within the LIP Global Equity Fund with a low carbon tilted equity fund (the Legal & General ("L&G") Low Carbon Transition Global Equity Index Fund), the "tilting" aspect referring to the fact that certain companies are invested in slightly more or less than a standard equity index, based on the level of carbon emissions associated with each company. The Trustee notes a significant reduction in carbon exposure as a result – the L&G Low Carbon Transition Global Equity Index Fund having around two-thirds less emissions compared to a standard global equity index, with a target to reduce emissions further over time. The Trustee notes this emissions reduction is achieved without wholesale exclusions of sectors, for example by not investing in fossil fuels. If such blanket exclusions were applied, then performance may differ significantly to a standard global equity index fund, and performance may be more volatile as the portfolio would be less diversified. The Trustee notes that the L&G Low Carbon Transition Global Equity Index Fund has been designed to address and reduce climate change risk which it believes to be financially material.

The Trustee notes that L&G integrate their Climate Impact Pledge into all their funds, which addresses other factors of ESG: L&G disinvest from companies that have poor ESG credentials who are not taking action to address these issues, and as such those companies that L&G believe will be negatively affected financially. This is aligned with the Trustees' approach/framework, voting and engagement, and collaboration ESG beliefs.

The Trustee notes that the Morrisons Growth Fund is available for members to self-select, therefore integrating ESG into the self-select range for this section as well as the default strategy.

L'Oréal Section

The investment adviser for this section is Hymans Robertson LLP ("Hymans Robertson"). The default for this section is 'L'Oreal Target Cash Lump Sum Strategy,' and consists of two white labelled funds (L'Oreal Growth Blend and L'Oreal Diversified Blend) together with the My Future Cash Lump Sum Fund. As at 31/03/2023 the total assets within the two white labelled funds within this default was just over £97.5m.

The Trustee notes the changes made to the default on this section within the Scheme Year to improve ESG integration, specifically:

L'Oréal Growth Blend – Including the following funds in the L'Oréal Growth Blend which would better align it to the Scheme Trustees' ESG beliefs (and take into consideration the Employer's Responsible Investment Policy):

- LGIM Future World Fund (34%), hedged to sterling
- Baillie Gifford Global Stewardship Fund (33%)
- BlackRock (World ex-UK) Equity Index Fund (30%)
- BlackRock UK Equity Index Fund (3%)

L'Oréal Diversified Blend – Replacing the allocation to the Schroders Dynamic Multi Asset Fund with the Aviva Stewardship Managed Fund, so that the revised allocation will be:

- 50% LGIM Diversified Fund
- 35% Aviva Stewardship International Equity Fund
- 15% Aviva Stewardship Bond Fund

The Trustee notes that the L'Oréal growth blend performed badly relative to MSCI ACWI over the 12 months to 31/03/2023, and understands the reasons for this, a major factor for the underperformance being the ESG tilt which excludes investment in the oil and gas sector which had a very strong year.

The Trustee notes that the default for this section has been constructed with ESG considerations being a major factor. The funds used throughout the default are specialist ESG funds which allow managers to select stocks based on ESG credentials. The funds used also incorporate certain exclusions (such as investment in tobacco, thermal coal, controversial weapons, and global compact violators).

Summary of climate risk and opportunities considerations for bespoke default investment arrangements continued

Thomas Cook Section

TThe investment adviser for this section is Mercer. The default for this section is 'Thomas Cook Flexible Journey,' and consists of two white labelled funds (TC Growth and TC Flexible Journey De-Risking) together with the BlackRock Sterling Liquidity Fund. As at 31/03/2023 the total assets within the two white labelled funds within this default was just over £336.8m.

The Trustee notes that the only material changes to either the Growth or De-Risking phases to the default on this section were for the investment adviser to upgrade the ESG ratings for the two BlackRock passive bond funds (BlackRock Passive UK Gilts All Stocks and BlackRock Passive Index-Linked Gilts All Stocks) used in the De-Risking phase.

The Trustee notes that the adviser has set out how ESG considerations are integrated within the default investment strategy, specifically:

- Manager and fund selection: Underlying funds have been selected using Mercer's ESG ratings. Within each asset class, a fund has only been selected if there was no "better" scoring fund on an ESG basis (with equivalent research rating) available on Aviva's platform on which the Scheme in administered.
- Mercer DGF – overview: The Mercer DGF used in the default integrates ESG in its strategy and implementation. This is subject to annual strategic review as new solutions emerge (e.g., ESG tilted funds within different asset classes).
- Mercer DGF – detail: Mercer have a commitment to appoint only underlying funds at or above a minimum agreed ESG ratings level. The DGF invests directly in sustainability themes –for example the allocation to sustainable equities. Certain sectors are excluded from the fund, including controversial and nuclear weapons, and tobacco.
- Stewardship and monitoring: Across all Scheme funds, stewardship reporting can be provided including monitoring on manager voting and engagement activity, and monitoring of adherence to the UK Stewardship Code.

Stewardship

Influencing change through voting and engagement

Aviva Investors is responsible for the voting and engagement activity in respect of most of the assets within the Scheme. The Trustee regularly meets with Aviva Investors to review the activity that it is taking in this regard with AI providing a quarterly report for the Investment Committee summarising voting and engagement activity for the Scheme's standard default investment arrangement, My Future Focus. The data and metrics below are taken from the Q1 2023 ESG Report for My Future Focus Growth:

Active engagement (portfolio specific)

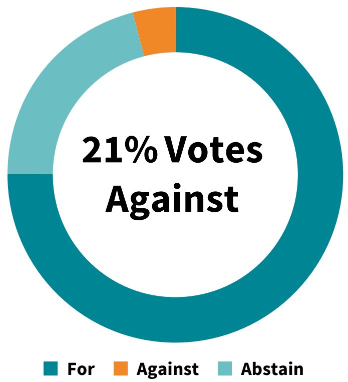
Voting (Corporates only)

Aviva Investors will vote on resolutions at Annual General Meetings (AGMs) and General Meetings (GMs) where shareholders can hold management to account and reflect views on a wide range of issues including financial performance, board composition, executive remuneration and progress on addressing climate change risk.

Description		YTD - total active votes	YTD votes against mgt (% of total votes)	Prior year YTD votes against mgt (% of total votes)	Delta vs. prior year
Voting	Number of individual resolutions voted relating to portfolio.	1,803	21%	22%	-1
	Voting across all Aviva Investors portfolios	9,592	22%	24%	

Source: Aviva Investors, as at 31 March 2023.

Active voting overview



Engagement activity

Aviva Investors actively engage with companies held within this portfolio via meetings, calls, and letters on issues such as strategy, board composition, disclosures and labour management.

Description		YTD engagement activity	Prior year, YTD engagement activity	Delta vs. prior year
Active engagement (number of engagements)	Non-substantive engagements are general company outreach programmes, outlining AI's expectations and views on best practice pertaining to key ESG themes.	6,376	3,555	+2821
Substantive engagement (number of engagements)	Substantive engagements are bespoke and targeted company interactions, which are led by either the portfolio managers or by the ESG team.	470	228	+242

Source: Aviva Investors, as at 31 March 2023.

Substantive engagement breakdown (year to date)

E 223 S 145 G 102

Source: Aviva Investors, as at 31 March 2023.

Summary of Q1 engagements (active and substantive)

Theme	Company	Sector	Engagement theme	Engagement summary
S	MICROSOFT CORPORATION	Industrial	Human Rights	Dialogue with company around the decision-making process behind recent lay-offs.
E	BANK OF AMERICA CORP	Finance	Climate change & energy	We contacted BofA via email to query the company's decision to not participate in CDP's Climate Change disclosure after previously ensuring that in 2022 they would in fact submit a response.
E	GOLDMAN SACHS GROUP INC/THE	Finance	Climate change & energy	We contacted Goldman Sachs via email to query the company's decision to not participate in CDP's Climate Change disclosure after previously ensuring that in 2022 they would in fact submit a response.
E	MORGAN STANLEY	Finance	Climate change & energy	In 2022, for the first time since before 2010, Morgan Stanley did not submit a response to CDP's Climate Change Disclosure before the deadline. This engagement was scheduled specifically to discuss this issue as CDP scores are an influential factor within our proprietary t-risk model.
E	MORGAN STANLEY	Finance	Climate change & energy	We met with the sustainability team at Morgan Stanley to understand the rationale behind their recent decision to not submit a Climate Change disclosure to be scored by CDP in 2022.

Source: Aviva Investors, as at 31 March 2023. For the period 1 January 2023 to 31 March 2023. If more than ten engagements in the quarter, selection criteria will be based on largest weighted holdings in the portfolio.

Aviva Investors' record and continued intensive approach to voting and engaging with investee companies is a key component of the Scheme's overall approach to ESG. This activity considers environmental considerations as well as those relating to social and governance factors. A key activity each year is to write to the Chairs of investee companies, with the last letter, in January 2023, covering the following key topics:

- Aviva Investors' stewardship priorities for 2023: the cost-of living crisis, transitioning to a low-carbon economy, and reversing nature loss
- Why Aviva Investors believe tactical decisions by companies to address short-term challenges cannot undermine longer-term sustainability objectives
- Aviva Investors' commitment to hold company boards and directors accountable where progress does not reflect the urgency required

Aviva Investors expects all investee companies to develop and publish robust and financially viable climate transition plans that will support the decarbonisation of economies in a socially just and inclusive manner.

In addition, Aviva Investors' 2020 three-year timebound Climate Escalation Engagement Programme targets 30 companies that in aggregate contribute to c.30% of global emissions annually.

Conclusions, next steps & priorities

The Trustee is reassured that the Scheme's popular default investment arrangements have made good progress on integrating climate related funds within their construction. The Trustee continues to monitor the impact that the recent changes for a number of these solutions will have on the future metrics and scenario analysis data for these investment solutions.

The Trustee will seek to actively encourage the investment managers to increase the amount of regular ongoing reporting of climate measures and to oversee the voting and engagement activity of its investment managers.

6. Metrics & Targets

Overview

Greenhouse gas ('GHG') emissions are a key factor to consider in the context of climate change. There are several economic activities that result in the release of GHGs into the atmosphere, primarily because of human activity such as burning fossil fuels for energy. Reducing the amount of GHGs within the atmosphere is important for controlling global warming and the corresponding physical impacts of climate change.

The Trustee has agreed to measure, monitor and publish a selection of climate metrics for the Scheme's popular arrangements. These metrics, associated targets and results are described below.

This section refers to Scope 1, Scope 2 and Scope 3 emissions. These can be described as follows:

Scope 1 emissions Scope 1 emissions are greenhouse gas emissions that a company is directly responsible for, such as emissions from on-site burning of fossil fuels or emissions from fleet vehicles.

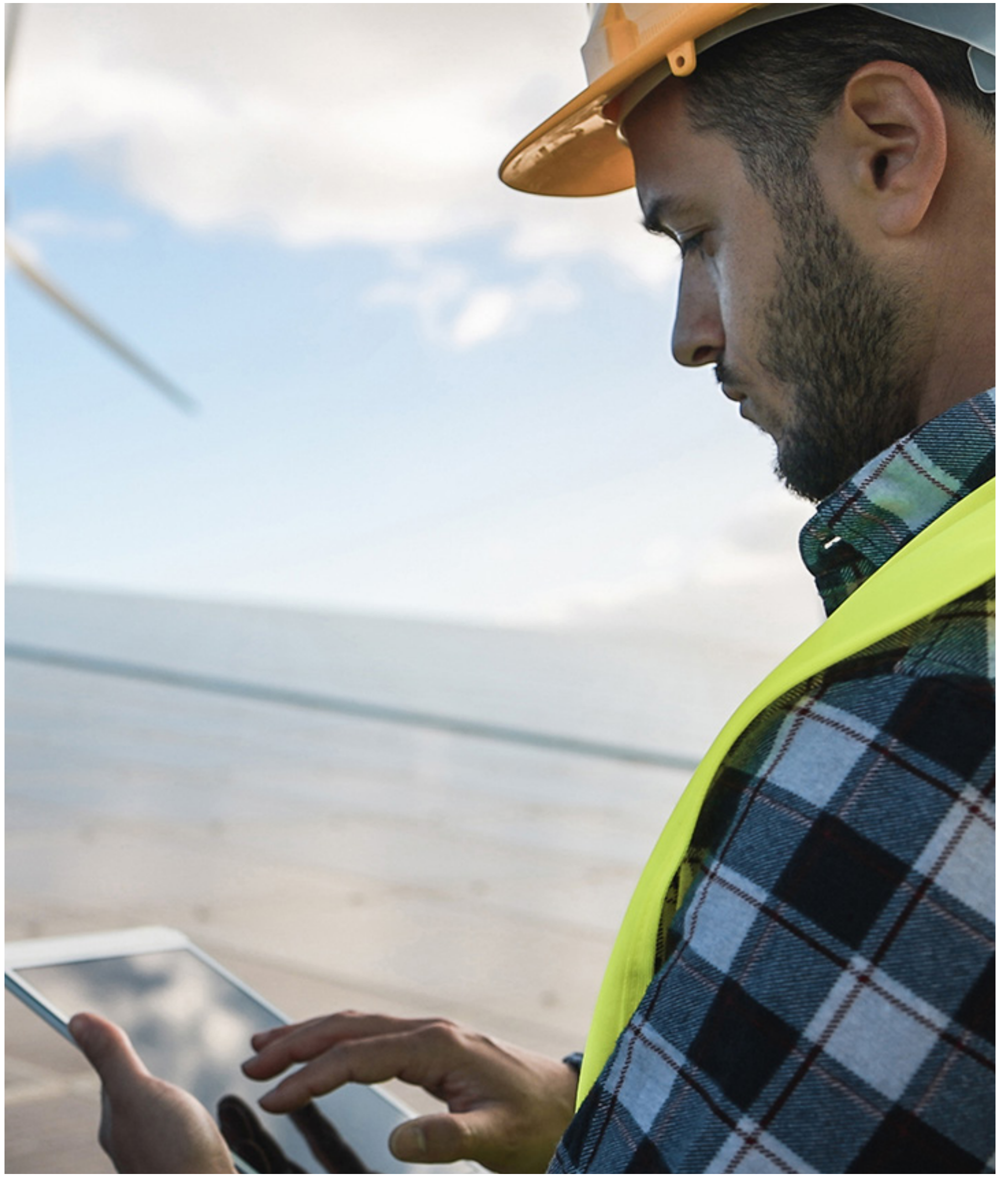
Scope 2 emissions Scope 2 emissions are greenhouse gas emissions from sources that a company owns or controls, such as the generation of electricity, heat, or steam purchased from a utility provider.

Scope 3 emissions Scope 3 emissions are greenhouse gas emissions from sources a company doesn't own or control but are related to its operations, such as employee commuting or contracted solid waste and wastewater disposal.

Targets set by the Trustee

The Trustee is supportive of the public statement that Aviva has made regarding its Net Zero 2040 ambition, which was announced in March 2021. Aviva is monitoring the progress of the My Future Focus and My Future Investment solutions – the Scheme's standard and alternative default investment arrangements – against its ambition. The Trustee has adopted Aviva's ambition as its target for My Future Focus and My Future, the Scheme's Standard and Alternative default strategies.

1. Net Zero by 2040; based on Carbon Intensity by Revenue (Scope 1,2 & 3) with a baseline date of 31 December 2019 – Aviva was the first major financial services company to have a Net Zero 2040 ambition.
2. To cut the Carbon Intensity by Revenue (Scope 1 & 2) of Aviva's investments by 25% by 2025.
3. To cut the Carbon Intensity by Revenue (Scope 1, 2 & 3) of Aviva's investments by 60% by 2030.



Summary of key activities carried out during the Scheme Year ended 31/03/2023 under the Metrics & Targets pillar:

The Trustee has published a range of climate metrics for each of the Scheme's popular default investment arrangements. The climate metrics have been calculated by the Aviva climate model and more information about the calculations and methodologies incorporated into the Aviva climate model can be found in the Appendix.

Metric Selection

The Trustee has selected the following metrics for the Scheme Year ended 31/03/2023:

Metric type	Climate metrics calculated by the Aviva climate model	Description	Rationale for metric
Absolute	Total Greenhouse Gas emissions, as CO_2 equivalents (tCO_2e) (Scopes 1,2 & 3)	A measure that assesses total absolute greenhouse gas (GHG) emissions, as mandated by the Kyoto Protocol, associated with a portfolio. This measure is expressed in metric tons tCO_2e.	Real world impact
Intensity	Carbon Intensity by EVIC (Scope 1, 2 & 3)	A measure that assesses the carbon efficiency of a portfolio, by calculating the volume of carbon emissions of the portfolio, per million dollars of enterprise value including cash of the portfolio. This measure is expressed in metric tons tCO_2e/$m EVIC.	Intensity metric consistent with the metric adopted by Aviva plc
Intensity	Carbon Intensity by Revenue (Scope 1, 2 & 3) NOTE: Scope 3 is shown discreetly from Scopes 1 & 2	A measure that assesses the carbon efficiency of a portfolio, by calculating the total tCO_2e emissions of the portfolio, per million dollars of revenue of the portfolio. This measure is expressed in metric tons tCO_2e/$m Revenue.	Intensity metric consistent with DWP guidance
Portfolio alignment	Temperature Alignment (previously Portfolio Warming Potential)	Assesses the contribution of the portfolio's activities towards climate change. The calculation provides an indication of what the portfolio's activities would equate to in terms of an increase in global average temperatures. This measure shows the implied contribution to increase in global temperatures (°C) by 2100.	Forward looking metric that rewards companies with transition plans even if they currently have high emissions A real-world interpretation of how investments are expected to contribute to global temperatures
Additional	PCAF Data quality score (Partnership for Carbon Accounting and Financials)	PCAF applies to financial institutions and sets the standard for transparency and reporting carbon emissions. Data is ranked from 1 to 5, with 1 being the most reliable and 5 reflecting low-quality data.	Enables the Trustee to track whether data quality levels are improving over time
Scenario Analysis	Climate VaR	Assesses the potential portfolio impacts of future climate-related risks and opportunities for four different IPCC temperature rise scenarios as well as in aggregate.	Stress testing potential portfolio impacts under different climate scenarios

Summary of key activities carried out during the Scheme Year ended 31/03/2023 under the Metrics & Targets pillar continued

These metrics are the same as the metrics selected by the Trustee for the scheme year ending 31 March 2022 (as reported on in Last Year's Report) except for the following changes:

- The Additional Portfolio Warming Potential metric now becomes an Temperature Alignment metric. This will meet the regulatory requirement for the Trustee to select an additional climate change metric relating portfolio alignment with the Paris Agreement goals with effect from 1 October 2022.

- A new item of supporting information has been selected, a data quality score. This was born out of work by the Partnership for Carbon Accounting Financials (PCAF), and MSCI, for example, has developed methodologies to deliver it. As such, Aviva and the Scheme Trustee consider this an industry standard. Importantly, the score enables the Trustee to track whether data quality levels are improving over time and provide the opportunity to challenge, as appropriate. The data quality score is a weighted average which is based on the proportional amount of holdings and is presented for the first time in 2022. 1 represents the best score, whilst 5 represents the lowest score.

Additionally:

i) Scope 3 emissions have been calculated for the Scheme Year ended 31/03/2023. They are shown discretely in the metrics below, rather than bundled with Scope 1 and 2.

ii) in addition to equites and corporate bonds, Scope 1 emissions (i.e. production emissions) of sovereign bonds have been included in the calculations for the Scheme Year ended 31/03/2023 and are shown discretely below.

The results of the performance of the Scheme's popular default investment arrangements against the metrics and associated targets were reviewed and analysed by the Investment Committee during the Scheme Year ended 31/03/2023 and will be shared with the investment advisers for each popular default investment arrangement.

The Trustees will continue to monitor the potential impact of changes to these default investment arrangements on the metrics and associated targets.

Limitations in accessing climate data

The Aviva climate model utilises MSCI climate data to undertake both its scenario analysis and calculate climate metrics. The MSCI climate data covers both equity and corporate bond asset classes.

Analysis of the climate data calculated to support the climate metrics for the Scheme's standard and alternative default investment arrangements showed that the frequency and quality of climate data that is being published by MSCI is improving year on year. For the 2019 dataset a greater proportion of data was historic data which utilised more estimates based on the MSCI methodology and classification as opposed to issuer reported data.

The following table shows the % of data for each asset type, that was obtained from issuer reported data.

Data Point	Equity % of data obtained from issuer reported data	Corporate Bonds % of data obtained from issuer reported data
31 December 2019	71.5%	31.3%
30 September 2021	86.5%	71.5%
30 September 2022	88.2%	88.6%

Results for the selected metrics

Results for the selected metrics have been calculated for individual funds/portfolios. Most members' assets are invested in line with the lifestyle strategies, first investing in the growth portfolios (which consist of higher proportions of equity investments) before transitioning into consolidation portfolios (which consist of higher proportions of bond and cash investments).

Within the Appendix are shown the respective portfolio allocations and glidepaths that apply at different life-stages within the Scheme's popular arrangements. This information can be utilised to consider what the respective impact would be for the different age cohorts of members at different points in their lifestyle for each of the Scheme's popular default investment arrangements.

Total Greenhouse Gas (GHG) emissions (Scope 1 & 2)

The following is a summary at portfolio/fund level of the Total GHG Emissions for the Scheme's holdings in the funds that make up the standard, alternative and bespoke default investment arrangements, comprising all popular arrangements within the Scheme. Also shown is the % of each fund for which we have been able to calculate data and the data quality score.

Note – the 2021 data for GHG emissions has been re-stated to reflect model updates. The 2021 figures for Carbon Intensity metrics are unaffected by this change.

Fund/Portfolio	Data as at 30 September 2021 tCO_2e	Data as at 30 September 2022 tCO_2e	Coverage (% of portfolio for which data sourced)	Data quality score (PCAF)
Standard default investment arrangement				
My Future Focus Growth	45,000	53,000	97%	2.2
My Future Focus Consolidation	3,000	3,000	73%	2.2
Alternative default investment arrangement				
My Future Growth	166,000	126,000	93%	2.1
My Future Consolidation	21,000	14,000	73%	2.1
Alternative default investment arrangement				
Stewardship International Equity	n/a	14	99%	2.0
Stewardship Managed	n/a	30	90%	2.0
Stewardship Bond	n/a	4	62%	2.1
Bespoke default investment arrangements				
Mott MacDonald Section				
LIP Global Equity	25,000	4,000	99%	2.2
LIP Diversified	6,000	3,000	88%	2.2
LIP Bond	300	300	51%	2.1
LIP Liquidity	400	200	73%	2.0

Results for the selected metrics continued

Total Greenhouse Gas (GHG) emissions (Scope 1 & 2) continued

Fund/Portfolio	Data as at 30 September 2021 tCO_2e	Data as at 30 September 2022 tCO_2e	Coverage (% of portfolio for which data sourced)	Data quality score (PCAF)
Wm Morrison Section				
Morrisons Growth	29,000	5,000	99%	2.2
Morrisons Pre-Retirement	1,000	500	43%	2.1
BlackRock Sterling Liquidity	0	3	77%	2.0
L'Oréal Section				
L'Oréal Growth Blend	4,000	4,000	98%	2.3
L'Oréal Diversified Blend	30	200	86%	2.1
My Future Cash Lump Sum	7	4	50%	2.0
Thomas Cook Section				
TC Growth	27,000	17,000	89%	2.3
TC Flexible Journey De-risking	1,800	1,400	75%	2.3
BlackRock Sterling Liquidity	0	2	77%	2.0

Notes:

a) The Total GHG Emissions Unit is metric tonnes (tCO_2e). The Aviva climate model calculation utilises MSCI 'greenhouse gas emissions' data (for equities and corporate bonds) where non-CO_2 greenhouse gases have been converted to CO_2-equivalents (CO_2e).

b) The data in the table above is limited to Scope 1 & 2 emissions and the Equity and Corporate Bond asset classes. Scope 3 emissions and scope 1 (production) emissions for sovereign bonds are set out separately later in this section of the Report.

The Total GHG calculations only incorporate the equity and corporate bond holdings of each of the funds. This contributes to the lower Total GHG Emission number for portfolios with significant investment in sovereign bonds, such as the My Future and My Future Focus Consolidation funds.

For the Scheme Year ending 31 March 2023 and in accordance with the statutory guidance, this metrics assessment incorporates Scope 3 as well as Scope 1 and Scope 2 emissions.

This report sets 2022 Total GHG emission as the baseline year for Total GHG emissions data. This metric references the asset issuer's Enterprise Value including Cash (EVIC) measured in $m as a more complete reflection of the issuer's value, however EVIC data was first introduced into the Aviva climate model in 2021.

Results for the selected metrics continued

Carbon Intensity Emissions (Scope 1& 2)

The following is a summary at portfolio level of the **Carbon Intensity by Revenue (Sales)** and **Carbon Intensity by EVIC** based on the two data points for the funds that make up the standard, alternative and bespoke default investment arrangements, comprising all popular arrangements within the Scheme.

Included in the table below ('comparison vs baseline') is the % change in carbon intensity levels. For the MyFuture Focus and My Future funds, the Trustee has an initial target reduction level of 25% by 2025.

Fund/ Portfolio	Carbon Intensity by Revenue (Sales) tCO_2e/\$m Revenue				Carbon Intensity by EVIC tCO_2e/\$m EVIC	Carbon Intensity by EVIC Scope 1 & 2 Data Coverage 30 September 2022		Carbon Intensity by EVIC tCO_2e/\$m EVIC	Carbon Intensity by EVIC Scope 1 & 2 Data Coverage 30 September 2022
	Data as at 31 December 2019	Data as at 30 September 2021	Data as at 30 September 2022	Comparison vs baseline	Data as at 30 September 2021	Equity	Corporate Bonds	Data as at 30 September 2022	Equity and Corporate Bonds
Standard default investment arrangement									
My Future Focus Growth	186	159	155	-17%	68	99.1%	71.3%	60	97%
My Future Focus Consolidation	153	126	108	-29%	54	99.1%	68.3%	50	73%
Alternative default investment arrangement									
My Future Growth	164	124	116	-29%	48	98.5%	70.8%	42	93%
My Future Consolidation	150	111	84	-44%	43	98.0%	72.5%	35	73%
Alternative default investment arrangement									
Stewardship International Equity	-	-	35	-	-	-	-	4	99%
Stewardship Managed	-	-	47	-	-	-	-	7	90%
Stewardship Bond	-	-	88	-	-	-	-	18	62%
Bespoke default investment arrangements									
Mott MacDonald Section									
LIP Global Equity	173	163	53	-70%	63	99.0%	n/a	12	99%
LIP Diversified	136	200	149	9%	83	92%	83%	37	88%
LIP Bond	139	139	88	-37%	58	n/a	65.5%	44.0	51%
LIP Liquidity	1	137	49	-	76	n/a	76.5%		

Results for the selected metrics continued

Carbon Intensity Emissions (Scope 1& 2) continued

Fund/ Portfolio	Carbon Intensity by Revenue (Sales) tCO_2e/\$m Revenue				Carbon Intensity by EVIC tCO_2e/\$m EVIC	Carbon Intensity by EVIC Scope 1 & 2 Data Coverage 30 September 2022		Carbon Intensity by EVIC tCO_2e/\$m EVIC	Carbon Intensity by EVIC Scope 1 & 2 Data Coverage 30 September 2022
	Data as at 31 December 2019	Data as at 30 September 2021	Data as at 30 September 2022	Comparison vs baseline	Data as at 30 September 2021	Equity	Corporate Bonds	Data as at 30 September 2022	Equity and Corporate Bonds
Wm Morrison Section									
Morrison Growth	170	152	52	-69%	65	96.8%	n/a	12	99%
Morrison Pre-Retirement	139	139	86	-38%	58	n/a	65.5%	36	43%
BlackRock Sterling Liquidity	1	3	3	93%	0.4	n/a	100.0%	0.3	100%
L'Oréal Section									
L'Oréal Growth Blend[4]	174	89	101	-42%	32	98.3%	n/a	46	98%
L'Oréal Diversi-fied Blend	138	65	122	-11%	14	97.4%	61.8%	28	89%
My Future Cash Lump Sum	117	86	43	-63%	31	n/a	76.4%	21	76%
Thomas Cook Section									
TC Growth	253	202	196	-22%	69	92.1%	77.1%	63	90%
TC Flexible Journey De-risking	311	266	215	-31%	86	86.0%	77.1%	70	84%
BlackRock Sterling Liquidity	1	3	3	93%	0.4	n/a	100.0%	0.3	100%

4 Excludes LGIM Future World (33% allocation)

Results for the selected metrics continued

Total GHG and Carbon Intensity Emissions (Scope 3)

The following is a summary at portfolio/fund level of the scope 3 GHG Emissions, Carbon Intensity by Revenue (Sales) and Carbon Intensity by EVIC for the Scheme's holdings in the funds that make up the standard, alternative and bespoke default investment arrangements, comprising all popular arrangements within the Scheme. We also include a table to summarise the coverage levels for each of the funds.

Estimating the Scope 3 emissions of an investment portfolio is subject to a significant degree of measurement uncertainty:

- Scope 3 emissions calculations are highly complex, given the need to estimate upstream and downstream emissions across often complex value chains. Where available, reported data is often incomplete, and where reported data is not available, high-level estimates are required with significant degrees of measurement uncertainty.
- The Scope 3 emissions of one company represents the Scope 1 & 2 emissions of other companies which form part of its value chain. At portfolio level this leads to inevitable overlap and double counting across the different scopes of emissions reflecting the complex interactions between companies as raw materials, goods and services flow through the economic system and are consumed. To mitigate the impact of this overlap and improve understandability of reported information the estimated Scope 3 emissions of the portfolio have been disaggregated from the Scope 1 & 2 emissions in the table below. Scope 1 & 2 emissions should not be added to Scope 3 emissions to infer a 'total' absolute emissions amount for the sector as this would include significant double counting and reduce the usefulness of the data.
- Additionally, where investments are held in companies whose value chains are interlinked (e.g. an investment in a manufacturer and a distributor of the same product) at portfolio level the Scope 3 emissions of investments are double counted, often multiple times over. Within a large portfolio, double counting is inevitable. Due to the intrinsic double counting Scope 3 emissions are disaggregated and reported by sector using the Global Industry Classification Standard (GICS). The total Scope 3 emissions across sectors should not be inferred as a portfolio-level total. It should also be noted that this presentation approach does not mitigate double counting of Scope 3 emissions within the same sector.

Scope 1&2 and Scope 3 data has been included only to the extent that GICS sector identifiers are available within MSCI Climate data, with investments for which there are data gaps being excluded from this analysis.

Estimated Scope 3 data has been sourced directly from MSCI Climate data with no additional overlay within the Aviva climate model.

Results for the selected metrics continued

Standard default investment arrangement

GICS Sector	My Future Focus Growth: Absolute emissions tCO_2e shown in thousands		Carbon intensity by EVIC	Carbon intensity by Revenue	PCAF Data Quality Score	My Future Focus Consolidation: Absolute emissions tCO_2e shown in thousands		Carbon intensity by EVIC	Carbon intensity by Revenue	PCAF Data Quality Score
	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3
Communication Services	0.3	2.3	40	161	4	0.0	0.1	43	160	4
Consumer Discretionary	1.3	34.4	369	751	4	0.1	1.5	346	714	4
Consumer Staples	1.8	18.5	274	604	4	0.1	0.9	305	600	4
Energy	13.6	131.7	2,643	4,732	4	0.6	5.6	2,666	5,051	4
Financials	0.3	9.5	64	360	4	0.0	0.9	63	396	4
Health Care	0.4	7.5	72	284	4	0.0	0.3	72	284	4
Industrials	3.1	28.2	342	634	4	0.2	1.3	343	615	4
Information Technology	1.1	11.2	79	345	4	0.0	0.5	76	341	4
Materials	17.8	79.8	1,690	3,483	4	0.7	3.5	1,678	3,418	4
Real Estate	0.3	1.1	49	262	4	0.0	0.1	41	253	4
Utilities	8.9	12.1	478	1,430	4	0.4	0.5	417	1,322	4

Results for the selected metrics continued

Alternative default investment arrangement

GICS Sector	My Future Growth					My Future Consolidation				
	Absolute emissions tCO_2e shown in thousands		Carbon intensity by EVIC	Carbon intensity by Revenue	PCAF Data Quality Score	Absolute emissions tCO_2e shown in thousands		Carbon intensity by EVIC	Carbon intensity by Revenue	PCAF Data Quality Score
	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3
Communication Services	0.9	8.0	40	156	4	0.1	1.0	45	155	4
Consumer Discretionary	3.7	99.0	308	603	4	0.4	9.1	300	588	4
Consumer Staples	5.1	52.7	231	523	4	0.6	5.4	246	518	4
Energy	35.4	336.0	2,283	3,907	4	3.0	28.6	2,189	3,765	4
Financials	2.1	27.0	58	320	4	0.2	5.7	60	387	4
Health Care	1.2	30.3	78	292	4	0.1	2.9	80	292	4
Industrials	11.8	138.2	496	938	4	1.4	14.0	533	974	4
Information Technology	2.9	36.2	61	317	4	0.3	3.3	61	314	4
Materials	30.2	149.5	1,176	2,286	4	2.5	11.9	1,041	2,013	4
Real Estate	0.6	4.1	50	291	4	0.1	0.4	46	284	4
Utilities	28.7	27.0	299	1,048	4	2.8	3.5	333	930	4

Results for the selected metrics continued

Alternative default investment arrangement continued

GICS Sector	Stewardship International Equity: Absolute emissions tCO_2e shown in thousands		Stewardship International Equity: Carbon intensity by EVIC	Stewardship International Equity: Carbon intensity by Revenue	Stewardship International Equity: PCAF Data Quality Score	Stewardship Managed: Absolute emissions tCO_2e shown in thousands		Stewardship Managed: Carbon intensity by EVIC	Stewardship Managed: Carbon intensity by Revenue	Stewardship Managed: PCAF Data Quality Score
	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3
Communication Services	0.0	0.0	28	159	4	0.0	0.0	37	156	4
Consumer Discretionary	0.0	0.0	87	247	4	0.0	0.0	141	419	4
Consumer Staples	0.0	0.0	117	446	4	0.0	0.0	127	434	4
Energy	-	-	-	-	4	-	-	-	-	4
Financials	0.0	0.0	19	185	4	0.0	0.0	36	225	4
Health Care	0.0	0.0	48	224	4	0.0	0.0	48	224	4
Industrials	0.0	0.0	40	242	4	0.0	0.0	42	242	4
Information Technology	0.0	0.0	27	209	4	0.0	0.0	27	209	4
Materials	0.0	0.0	142	892	4	0.0	0.0	172	884	4
Real Estate	0.0	0.0	10	183	4	0.0	0.0	11	192	4
Utilities	-	-	-	-	4	0.0	0.0	100	384	4

Results for the selected metrics continued

Alternative default investment arrangement continued

Stewardship Bond

GICS Sector	Absolute emissions tCO_2e shown in thousands		Carbon intensity by EVIC	Carbon intensity by Revenue	PCAF Data Quality Score
	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3
Communication Services	0.0	0.0	60	151	4
Consumer Discretionary	0.0	0.0	500	1,579	4
Consumer Staples	0.0	0.0	314	179	4
Energy	-	-	-	-	4
Financials	0.0	0.0	66	290	4
Health Care	-	-	-	-	4
Industrials	0.0	0.0	177	270	4
Information Technology	-	-	-	-	4
Materials	0.0	0.0	556	776	4
Real Estate	0.0	0.0	14	252	4
Utilities	0.0	0.0	100	384	4

Results for the selected metrics continued

Bespoke default – Mott McDonald section

GICS Sector	LIP Global Equity: Absolute emissions tCO_2e shown in thousands		LIP Global Equity: Carbon intensity by EVIC	LIP Global Equity: Carbon intensity by Revenue	LIP Global Equity: PCAF Data Quality Score	LIP Diversified: Absolute emissions tCO_2e shown in thousands		LIP Diversified: Carbon intensity by EVIC	LIP Diversified: Carbon intensity by Revenue	LIP Diversified: PCAF Data Quality Score
	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3
Communication Services	0.1	0.9	37	162	4	0.0	0.2	54	168	4
Consumer Discretionary	0.4	13.6	314	686	4	0.1	2.3	423	758	4
Consumer Staples	0.4	4.8	191	531	4	0.1	0.8	165	506	4
Energy	1.0	12.2	1,710	4,765	4	0.5	5.0	2,160	5,646	4
Financials	0.1	2.7	57	317	4	0.0	0.8	57	346	4
Health Care	0.2	3.3	72	286	4	0.0	0.4	61	258	4
Industrials	0.5	10.4	365	819	4	0.1	1.6	307	572	4
Information Technology	0.3	4.6	60	321	4	0.1	0.6	84	378	4
Materials	0.4	5.6	760	2,575	4	0.3	2.7	1,344	3,611	4
Real Estate	0.1	0.4	47	283	4	0.1	0.3	33	287	4
Utilities	0.3	0.8	269	1,167	4	1.1	1.4	276	1,006	4

Results for the selected metrics continued

Bespoke default – Mott McDonald section continued

GICS Sector	LIP Bond: Absolute emissions tCO_2e shown in thousands		LIP Bond: Carbon intensity by EVIC	LIP Bond: Carbon intensity by Revenue	LIP Bond: PCAF Data Quality Score	LIP Liquidity: Absolute emissions tCO_2e shown in thousands		LIP Liquidity: Carbon intensity by EVIC	LIP Liquidity: Carbon intensity by Revenue	LIP Liquidity: PCAF Data Quality Score
	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3
Communication Services	0.0	0.0	59	153	4	0.0	0.0	57	195	4
Consumer Discretionary	0.0	0.0	82	356	4	-	-	-	-	4
Consumer Staples	0.0	0.0	261	388	4	0.0	-	-	-	4
Energy	0.0	0.1	2,483	3,443	4	0.0	0.0	2,453	2,759	4
Financials	0.0	0.1	67	373	4	0.0	0.3	59	538	4
Health Care	0.0	0.0	112	209	4	0.0	0.0	104	334	4
Industrials	0.0	0.0	317	526	4	0.0	0.0	266	350	4
Information Technology	0.0	0.0	37	235	4	0.0	0.0	33	130	4
Materials	0.0	0.0	945	1,095	4	-	-	-	-	4
Real Estate	0.0	0.0	13	241	4	0.0	0.0	17	239	4
Utilities	0.1	0.3	592	842	4	0.1	0.1	561	510	4

Results for the selected metrics continued

Bespoke default – Morrisons section

GICS Sector	Morrisons Growth: Absolute emissions tCO_2e shown in thousands		Morrisons Growth: Carbon intensity by EVIC	Morrisons Growth: Carbon intensity by Revenue	Morrisons Growth: PCAF Data Quality Score	Morrison Pre-Retirement: Absolute emissions tCO_2e shown in thousands		Morrison Pre-Retirement: Carbon intensity by EVIC	Morrison Pre-Retirement: Carbon intensity by Revenue	Morrison Pre-Retirement: PCAF Data Quality Score
	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3
Communication Services	0.2	1.2	37	162	4	0.0	0.0	55	151	4
Consumer Discretionary	0.5	17.8	314	686	4	0.0	0.0	103	448	4
Consumer Staples	0.5	6.3	191	531	4	0.0	0.1	198	564	4
Energy	1.3	16.0	1,710	4,765	4	-	-	-	-	4
Financials	0.2	3.6	55	311	4	0.0	0.3	61	358	4
Health Care	0.2	4.4	72	286	4	0.0	0.0	474	171	4
Industrials	0.7	13.7	365	819	4	0.0	0.1	331	378	4
Information Technology	0.4	6.0	60	321	4	0.0	0.0	47	307	4
Materials	0.6	7.4	760	2,575	4	0.0	0.1	1,127	1,245	4
Real Estate	0.1	0.5	47	283	4	0.0	0.0	15	245	4
Utilities	0.4	1.1	269	1,167	4	0.0	0.0	147	1,067	4

Results for the selected metrics continued

Bespoke default – Morrisons section continued

Blackrock Sterling Liquidity (Morrisons section)

GICS Sector	Absolute emissions tCO_2e shown in thousands		Carbon intensity by EVIC	Carbon intensity by Revenue	PCAF Data Quality Score
	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3
Communication Services	-	-	-	-	4
Consumer Discretionary	-	-	-	-	4
Consumer Staples	-	-	-	-	4
Energy	-	-	-	-	4
Financials	0.0	0.4	58	702	4
Health Care	-	-	-	-	4
Industrials	-	-	-	-	4
Information Technology	-	-	-	-	4
Materials	-	-	-	-	4
Real Estate	-	-	-	-	4
Utilities	-	-	-	-	4

Results for the selected metrics continued

Bespoke default – L'Oreal section

GICS Sector	L'Oreal Growth Blend: Absolute emissions tCO_2e shown in thousands		L'Oreal Growth Blend: Carbon intensity by EVIC	L'Oreal Growth Blend: Carbon intensity by Revenue	L'Oreal Growth Blend: PCAF Data Quality Score	L'Oreal Diversified Blend: Absolute emissions tCO_2e shown in thousands		L'Oreal Diversified Blend: Carbon intensity by EVIC	L'Oreal Diversified Blend: Carbon intensity by Revenue	L'Oreal Diversified Blend: PCAF Data Quality Score
	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3
Communication Services	0.1	0.4	49	175	4	0.0	0.0	40	160	4
Consumer Discretionary	0.1	3.5	302	564	4	0.0	0.1	399	698	4
Consumer Staples	0.1	1.2	286	491	4	0.0	0.0	153	476	4
Energy	0.6	5.5	2,631	3,959	4	0.0	0.3	2,195	4,338	4
Financials	0.0	1.2	73	343	4	0.0	0.1	42	254	4
Health Care	0.0	0.5	51	307	4	0.0	0.0	51	238	4
Industrials	0.4	3.7	315	641	4	0.0	0.1	124	341	4
Information Technology	0.3	3.6	237	339	4	0.0	0.1	40	237	4
Materials	1.5	3.7	1,122	1,989	4	0.0	0.2	1,174	2,766	4
Real Estate	0.0	0.1	65	335	4	0.0	0.0	35	286	4
Utilities	1.0	2.6	780	1,289	4	0.1	0.1	318	1,313	4

Results for the selected metrics continued

Bespoke default – L'Oreal section continued

My Future Cash Lump Sum (L'Oreal section)

GICS Sector	Absolute emissions tCO_2e shown in thousands		Carbon intensity by EVIC	Carbon intensity by Revenue	PCAF Data Quality Score
	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3
Communication Services	0.0	0.0	56	155	4
Consumer Discretionary	0.0	0.0	98	449	4
Consumer Staples	0.0	0.0	589	582	4
Energy	-	-	-	-	4
Financials	0.0	0.0	60	451	4
Health Care	0.0	0.0	51	263	4
Industrials	0.0	0.0	346	340	4
Information Technology	0.0	0.0	22	122	4
Materials	0.0	0.0	1,127	1,245	4
Real Estate	0.0	0.0	12	225	4
Utilities	0.0	0.0	122	704	4

Results for the selected metrics continued

Bespoke default – Thomas Cook section

GICS Sector	TC Growth: Absolute emissions tCO_2e shown in thousands		TC Growth: Carbon intensity by EVIC	TC Growth: Carbon intensity by Revenue	TC Growth: PCAF Data Quality Score	TC Flexible Journey De-Risking: Absolute emissions tCO_2e shown in thousands		TC Flexible Journey De-Risking: Carbon intensity by EVIC	TC Flexible Journey De-Risking: Carbon intensity by Revenue	TC Flexible Journey De-Risking: PCAF Data Quality Score
	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3
Communication Services	0.1	0.8	42	161	4	0.0	0.1	48	160	4
Consumer Discretionary	0.4	12.2	451	762	4	0.0	0.7	495	793	4
Consumer Staples	0.5	4.5	255	555	4	0.0	0.3	265	532	4
Energy	2.9	29.6	2,688	4,653	4	0.2	1.9	2,819	4,915	4
Financials	0.2	2.2	61	332	4	0.0	0.2	66	347	4
Health Care	0.1	2.1	73	286	4	0.0	0.1	72	272	4
Industrials	1.2	8.1	342	691	4	0.1	0.4	270	559	4
Information Technology	0.4	4.1	86	336	4	0.0	0.2	100	342	4
Materials	4.7	14.7	1,201	2,319	4	0.3	0.8	1,148	2,057	4
Real Estate	0.1	0.5	27	251	4	0.0	0.0	24	246	4
Utilities	4.8	4.7	399	1,438	4	0.5	0.5	426	1,368	4

Results for the selected metrics continued

Bespoke default – Thomas Cook section continued

Blackrock Sterling Liquidity (Thomas Cook section)

GICS Sector	Absolute emissions tCO_2e shown in thousands		Carbon intensity by EVIC	Carbon intensity by Revenue	PCAF Data Quality Score
	Scope 1 & 2	Scope 3	Scope 3	Scope 3	Scope 3
Communication Services	-	-	-	-	4
Consumer Discretionary	-	-	-	-	4
Consumer Staples	-	-	-	-	4
Energy	-	-	-	-	4
Financials	0.0	0.3	58	702	4
Health Care	-	-	-	-	4
Industrials	-	-	-	-	4
Information Technology	-	-	-	-	4
Materials	-	-	-	-	4
Real Estate	-	-	-	-	4
Utilities	-	-	-	-	4

Results for the selected metrics continued

The table below shows the % coverage

The table below shows the % coverage

Fund Name	Scope 1 & 2 Data Coverage (Absolute Emissions)	Scope 3 Data Coverage (Absolute Emissions)	Scope 3 Data Coverage (Carbon Intensity by Revenue)
BlackRock Sterling Liquidity (Thomas Cook Section)	48%	48%	48%
BlackRock Sterling Liquidity (Wm Morrison Section)	48%	48%	48%
LIP Bond	31%	31%	32%
LIP Diversified	82%	81%	81%
LIP Global Equity	99%	98%	98%
LIP Liquidity	49%	48%	49%
L'Oreal Diversified Blend	82%	81%	81%
L'Oreal Growth Blend	97%	96%	96%
Morrisons Growth	99%	98%	99%
Morrisons Pre-Retirement	26%	25%	26%
My Future Consolidation	63%	63%	63%
My Future Cash Lump Sum	31%	31%	31%
My Future Focus Consolidation	61%	60%	61%
My Future Focus Growth - Other	93%	93%	93%
My Future Focus Growth - Standard	93%	93%	93%
My Future Growth	90%	90%	90%
MYM Future Focus Drawdown	89%	88%	88%
Stewardship Bond	43%	43%	44%
Stewardship International Equity	99%	99%	99%
Stewardship Managed	86%	86%	86%
TC Flexible Journey de-risking	65%	64%	65%
TC Growth	85%	84%	84%

Results for the selected metrics continued

Sovereign emissions (Scope 1)

Fund/Portfolio	Absolute	Coverage	Intensity	Coverage	PCAF (quality score)
Standard default arrangement					
My Future Focus Growth	15,886	100%	340	100%	3.6
My Future Focus Consolidation	14,973	100%	199	100%	2.2
Alternative default arrangement					
My Future Growth	46,121	100%	236	100%	2.0
My Future Consolidation	57,833	100%	169	100%	2.0
Alternative (ethical) default arrangement					
Stewardship Managed	16	100%	126	100%	2.0
Stewardship International Equity	-	-	-	-	-
Stewardship Bond	4	100%	126	100%	2.0
Bespoke Defaults					
Mott MacDonald section					
LIP Global Equity	-	-	-	-	-
LIP Diversified	4,854	100%	230	100%	2.6
LIP Bond	938	100%	126	100%	2.0
LIP Liquidity	-	-			
Morrisons section					
Morrisons Growth	-	-	-	-	-
Morrisons Pre-Retirement	2,239	99%	176	99%	2.0
BlackRock Sterling Liquidity	-	-	-	-	-

Results for the selected metrics continued

Sovereign emissions (Scope 1) continued

Fund/Portfolio	Absolute	Coverage	Intensity	Coverage	PCAF (quality score)
L'Oreal section					
L'Oreal Growth	-	-	-	-	-
L'Oreal Diversified Blend	214	100%	245	100%	2.8
My Future Cash Lump Sum	19	100%	127	100%	2.0
Thomas Cook section					
TC Growth	286	99%	281	99%	3.0
TC Flexible Journey De-Risking	2,692	100%	127	100%	2.0
BlackRock Sterling Liquidity	-	-	-	-	-

Results for the selected metrics continued

Temperature Alignment

Fund/Portfolio	Temperature Alignment Degrees Celsius Data as at 30 September 2022			
	Equity and Corporate Bonds	Sovereign Bonds	Aggregate	Coverage
Standard default arrangement				
My Future Focus Growth	2.9	3.5	2.9	97%
My Future Focus Consolidation	2.7	2.5	2.6	86%
Alternative default investment arrangement				
My Future Growth	2.6	2.9	2.6	93%
My Future Consolidation	2.4	2.3	2.4	83%
Alternative default investment arrangement				
Stewardship International Equity	1.6	n/a	1.6	99%
Stewardship Managed	1.6	2.0	1.6	91%
Stewardship Bond	1.6	2.0	1.7	66%
Bespoke default investment arrangements				
Mott MacDonald Section				
LIP Global Equity	2.2	n/a	2.2	99%
LIP Diversified	2.4	2.8	2.5	89%
LIP Bond	2.0	2.0	2.0	69%
LIP Liquidity	1.9	n/a	1.9	73%
Wm Morrison Section				
Morrisons Growth	2.2	n/a	2.2	99%
Morrisons Pre-Retirement	1.9	2.4	2.1	60%
BlackRock Sterling Liquidity	2.0	n/a	2.0	77%

Results for the selected metrics continued

Temperature Alignment continued

Fund/Portfolio	Temperature Alignment Degrees Celsius Data as at 30 September 2022			
	Equity and Corporate Bonds	Sovereign Bonds	Aggregate	Coverage
L'Oréal Section				
L'Oréal Growth Blend[5]	2.4	n/a	2.4	97%
L'Oréal Diversified Blend	2.2	2.9	2.3	87%
My Future Cash Lump Sum	2.1	2.0	2.1	65%
Thomas Cook Section				
TC Growth	2.8	3.4	2.8	88%
TC Flexible Journey De-risking	2.7	2.0	2.4	86%
BlackRock Sterling Liquidity	2.0	n/a	2.0	77%

5 Excludes LGIM Future World (33% allocation)

Conclusions/next steps

- The Trustee is pleased with the availability of data for the Scheme's popular arrangements. As can be seen, the production of climate metrics for all the Scheme's popular investment arrangements has generated a significant amount of data and the Trustee will be working with their investment advisers and investment managers to understand further the explanation behind the data, taking into the respective asset class/territory/sector allocations within the funds.

- The addition of Scope 3 emissions data is a step forward, however, at this point there are significant limitations to it, which is borne out by the relatively low quality score of 4.

- The Trustee will continue to work actively with Aviva and the investment managers to include additional data in future years,

- The Trustee has analysed the carbon emissions associated with the lifestyle arrangements and are comfortable with the current levels of exposure in the wider context of the investment strategy – noting that various sub-asset classes and regions such as high yield credit and emerging markets will have higher intensity in carbon emissions, and this will impact the metrics for default investment arrangements like My Future Focus that have a significant holding in these sectors. The Trustee believes such exposures are an important part of providing members with a suitable balance of investment risk and return and play an essential role in the global transition to a low carbon world.

- The Trustee is pleased to note that the Scheme's standard and alternative default investment arrangements, My Future Focus and My Future have experienced a level of reduction in Carbon Intensity levels between 31 December 2019 and 30 September 2022. The Trustee also notes the continued reductions, albeit at more modest levels seen between 30 September 2021 and 30 September 2022.

- The Trustees remain supportive of Aviva's Net Zero by 2040 ambition.

7. Appendix

Appendix

Explanation of Climate Metrics

Climate Value-at-Risk (VaR)

In accordance with the recommendations of the TCFD, Aviva has developed a Climate Value-at-Risk (VaR) measure which enables scenario analysis to determine the potential business impacts of future climate-related risks and opportunities.

This section sets out Aviva's approach to Climate VaR.

Climate scenarios considered

Aviva assesses the potential business impacts of future climate-related risks and opportunities under different IPCC scenarios and in aggregate[6]. The IPCC scenarios describe the effect on the energy balance of the global climate system due to changes in the composition of the atmosphere from sources like greenhouse gas emissions, other air pollutants[7] and changes in land use. The four IPCC scenarios identified in the IPCC Fifth Assessment Report (AR5) represent different Representative Concentration Pathways (RCPs) which describe the composition of the atmosphere and the impact on global warming at the end of the 21st century.

Aggressive mitigation is the only scenario where it is more likely than not that the temperature change in 2100 will be less than 2°C. Since the original AR5 report new RCPs have been developed, such as RCP1.9 which limits global warming to 1.5°C, and pathways are now being considered together with five Shared Socioeconomic Pathways[8] (SSPs). These consider socio-economic characteristics including things such as population, economic growth, education, urbanisation and the rate of technological development. In addition, scenarios can also be selected that represent early policy action or late policy action. The timing of climate action can represent orderly and disorderly transition pathways.

6 Aviva was awarded the Climate Risk Initiative of the Year 2020 by InsuranceERM. https://www.insuranceerm.com/content/galleries/insuranceermannual-awards-2020-uk-and-europe-winners/climate-risk-initiative-of-the-year-aviva.html

7 Fundamentals of Air Pollution (Fifth Edition); Daniel Vallero; 2014. https://www.sciencedirect.com/book/9780124017337/fundamentals-of-air-pollution

8 The Shared Socioeconomic Pathways and their energy, land use, and greenhouse gas emissions implications: An overview; Keywan Riahi et al.; 2017. https://www.sciencedirect.com/science/article/pii/S0959378016300681

9 For MSCI data used throughout this report: Although Aviva's information providers, including without limitation, MSCI ESG Research LLC and its affiliates (the 'ESG Parties'), obtain information (the 'Information') from sources they consider reliable, none of the ESG Parties warrants or guarantees the originality, accuracy and/ or completeness, of any data herein and expressly disclaim all express or implied warranties, including those of merchantability and fitness for a particular purpose. The Information may only be used for your internal use, may not be reproduced or redisseminated in any form and may not be used as a basis for, or a component of, any financial instruments or products or indices. Further, none of the Information can in and of itself be used to determine which securities to buy or sell or when to buy or sell them. None of the ESG Parties shall have any liability for any errors or omissions in connection with any data herein, or any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages

Development

Aviva developed its Climate VaR measure in conjunction with the UNEP FI investor pilot project, which developed models and scenario analysis tools to assess the potential impact on corporate bonds, equity securities and real estate of different scenarios in conjunction with MSCI[9].

MSCI calculates the impact of transition based on a range of Integrated Assessment Models' assessments of different combinations of SSPs and temperature changes:

- The AIM/CGE model[10] from the Japanese National Institute for Environmental Studies (NIES)[11]
- The IMAGE model[12] (Integrated Model to Assess the Global Environment) developed in conjunction with the PBL Netherlands Environmental Assessment Agency in partnership with the University of Utrecht
- The GCAM model[13] (Global Change Assessment Model) primarily developed by the Joint Global Change Research Institute (JGCRI) in the USA
- The REMIND model (Regional Model of Investment and Development) developed by Potsdam Institute for Climate Impact Research (specifically for the NGFS scenarios) MSCI calculates the impact of physical risk in the IPCC RCP 8.5 scenario. MSCI calculates both the expected physical impact in this scenario as well as an aggressive physical impact based on a higher 95th percentile.

While the scenarios reflect current scientific research, there clearly remains significant uncertainty regarding future climate trajectories as well as political risk with respect to implementation of the Paris Agreement and Nationally Determined Contributions (NDCs)[14].

It is also important to note that the four RCP scenarios identified in AR5 all assume a gradual path, in which temperatures slowly rise but climate policy is ramped up at varying speeds with a fairly high degree of global co-ordination. They do not consider the transition risk in a more chaotic policy environment, where there is lack of global coordination and policy action is taken too late and too suddenly.

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

11 The National Institute for Environmental Studies (NIES) is a Japanese research institute that undertakes a broad range of environmental research in an interdisciplinary and comprehensive manner

12 The IMAGE model is an ecological-environmental model.

13 The GCAM model is a dynamic-recursive model.

14 Intended Nationally Determined Contributions is a term used under the UN Framework Convention on Climate Change for reductions in greenhouse gas emissions that all countries that signed the UNFCCC were asked to publish in the lead-up to COP21.

Explanation of Climate Metrics continued

Time horizon modelled for different scenarios

Transition and physical risk are modelled consistently until the end of the 21st century. For physical risk, the longer-time horizon is required to capture the worst physical impacts of climate change, as these are not likely to manifest themselves until the second half of the century. If a specific use case is based on a shorter-time horizon (e.g. 15 years), the financial impacts can be assessed over this time horizon.

Risks and opportunities covered

Aviva's modelling of transition and physical risks and opportunities specifically covers the projected costs of policy action related to limiting greenhouse gas emissions as well as projected profits from green revenues arising from developing new technologies and patents. In addition, it captures acute weather impacts such as coastal and fluvial flooding and tropical cyclones, as well as chronic impacts from gradual changes in extreme heat and cold, heavy precipitation and snowfall or wind gusts. Regional sea level rise is an important input to the risk model and constitutes a key driver of coastal flooding impacts. It is important to note that the changes in acute and chronic impacts can also have a positive as well as negative effect on individual companies or instruments.

Building Block Approach

To assess these risks and opportunities, Aviva has adopted a Building Block Approach.

Finally, to assess the overall impact of climate-related risks and opportunities across all scenarios, the relative likelihoods or probabilities of each scenario need to be assigned. To do this Aviva considered amongst other things the current scientific analysis of the likely trajectory of emissions as well as policy commitments made by countries to reduce emissions.

Transition risks and opportunities

The financial impact of transition risks and opportunities are calculated relative to the RCP 8.5 scenario (i.e. there are assumed to be no transition costs or opportunities in the RCP 8.5 scenario, where current emissions are presumed to continue to rise at the current rate). The calculation covers both emission reduction prices and revenues from new technologies.

The following high level methodology is used to assess the potential downside risk from different transition scenarios on investments.

For both corporate bonds and equity securities the difference between the market value and the adjusted value after factoring in future climate change costs and/or revenues is measured (i.e. the impact relative to current climate conditions and emissions trajectory). To estimate the impact in a consistent way when a company has issued both shares and bonds, the Merton model[15] is used. This model enables the impact on a business as a whole to be translated into a change in value of its corporate bonds and equity securities. As both costs and opportunities are covered, the Climate VaR can be either negative or positive depending on the balance of future anticipated carbon-related costs and revenues for individual companies or instruments. MSCI has also developed a methodology for estimating the transition exposure of property assets which Aviva have used for both direct real estate and real estate-linked debt holdings. For infrastructure assets, Aviva has used the ClimateWise Transition Risk Framework to identify the key risk exposures across its portfolio of assets, taking into account how transition risks and opportunities vary by geography, sector and subsector to assess the potential impact in different climate scenarios.

Physical risks and opportunities

The financial impact of physical risks and opportunities is based on an assessment of both the expected costs in the RCP 8.5 scenario and the costs at a higher 95th percentile arising from hazards such as: extreme heat and cold, heavy precipitation and snow, coastal flooding, fluvial flooding, wind gusts, tropical cyclones, wildfire, and river low flow. Aviva use the expected costs and the costs at a higher percentile to define a distribution of physical risk outcomes for each scenario and thus capture some of the more extreme potential physical effects of climate change while using a time horizon until the end of the century to maintain consistency with transition risk.

The physical risks on investments are generally going to be driven by the exposure of the facilities (buildings, plant, infrastructure) owned or used by the company that has issued the financial instrument, their 'facilities', and the supply chain they rely on for producing their end product.

The cost is built up by mapping the facilities onto a world map, with measures that define the facility's exposure to different extreme weather hazards, and then combining this with a vulnerability function that converts the exposure and an assessment of the physical hazard impact in each scenario into an estimated monetary cost, per facility.

15 Analysts and investors utilise the Merton model to understand how capable a company is at meeting financial obligations, servicing its debt, and weighing the general possibility that it will go into credit default

Explanation of Climate Metrics continued

For both corporate bonds and equity shares, the difference between the market value and the adjusted value after factoring in aggregated facility costs and/or revenues is measured. The costs and/ or revenues to a business are measured relative to an assessment of physical risks under current conditions as these are assumed to be already factored into the market value. This business impact is then translated into a change in the value of its corporate bonds and equity securities using the Merton model.

Aviva recognises that the current approach does not, for example, capture the impact on companies' supply chains nor necessarily demand for its products and services or potential mitigating impact of insurance. For example, in the case of a major car manufacturer their real assets will mainly include their factories and machinery and possibly their dealerships.

Their supply chain will be broad, complex and potentially geographically diverse and if disrupted it could adversely impact companies' costs and/or revenues. Aviva will continue to work internally and with external partners to develop best practice in this area. For directly held real estate assets, real estate loans and infrastructure assets, Aviva use the same approach described above. For directly held real estate the impact is carried directly against the property valuation. For real estate loans, Aviva assess the physical climate change risk impact by running the stressed property value through its debt valuation models.

For sovereign bonds, the impact on the market value of a security is measured by assessing how a sovereign's rating could change as a result of the occurrence of different extreme weather hazards in each scenario. The following climate-related factors may impact sovereign debt: exposure and vulnerability to climate change; readiness and adaptation; ability to raise money for mitigation and post-disaster repair; ability to raise money via taxation and debt; reliance on foreign aid and support of the International Monetary Fund and other supra-national bodies. To assess a sovereign's vulnerability to climate change and readiness, the Notre Dame University's Notre Dame-Global Adaptation Initiative (ND-GAIN)[16] measure for country climate change risk has been used. Aviva notes that the assessment of sovereign debt is difficult because sovereigns are exposed to climate change via several vectors: government buildings and government-owned infrastructure, cost of emergency relief to areas affected by climate-related disasters, aid and rebuilding costs and the cost of acting as insurer of last resort. So, the ND-GAIN[17] data has been used to help support expert judgements about the appropriate stresses to apply to different sovereign bonds in modelling at this stage. Aviva will continue to work internally and with external partners to develop best practice in this area.

Aggregation of climate-related risks and opportunities

Aviva aggregate all the component parts of exposure to derive an aggregate view of the impact of climate-related risks and opportunities, using an approach that is motivated by its approach to modelling operational risk. This approach, which has been developed in conjunction with Elseware, a risk management and quantification expert consultancy, uses a Bayesian Network[18] methodology. The attraction of this approach is that Aviva can combine a set of beliefs, expert judgements, internal data and external data to assess the potential impact of these risks, on an aggregated basis. Aviva can then determine an overall Climate VaR for each scenario.

The impact distributions of each climate scenario are then combined to give a fully aggregated result across all four scenarios. This final step of aggregation uses the assigned likelihood given to each scenario taking into consideration amongst other things the current scientific analysis of the likely trajectory of emissions as well as policy commitments made by countries to reduce emissions.

Total GHG emissions

It is widely believed that carbon dioxide (CO_2) emissions are the primary driver of climate change. In order to avoid the worst impacts of climate change, there is a global ambition to significantly reduce CO_2 emissions which is captured in the Paris Agreement. Carbon dioxide is not the only Greenhouse Gas, the Kyoto Protocol identified seven greenhouse gases which trap heat in the atmosphere and contribute to climate change. These are carbon dioxide (CO_2), methane (CH4), nitrous oxide N2O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF6), and nitrogen trifluoride (NF3).

Greenhouse gases have very different warming effects: one tonne of methane does not have the same impact on warming as one tonne of CO_2. The Aviva climate model utilities the MSCI 'greenhouse gas emissions' data. This data is provided as CO_2-equivalents (CO_2e), where the carbon dioxide equivalents (CO_2e) convert the warming impact of the full range of greenhouse gases into a single metric. However, this data is only available for equity and corporate bond asset classes.

16 Certain information ©2021 MSCI ESG Research LLC. Reproduced by permission
17 https://gain.nd.edu/our-work/country-index/
18 Probabilistic graphical model that represents a set of variables and their conditional dependencies via a directed acyclic graph

Explanation of Climate Metrics continued

Carbon footprint (Carbon intensity by EVIC) and Carbon intensity by revenue

While Total CO_2e emissions provide an absolute measure of the carbon emissions produced by an organisation or investment portfolio, they are not scaled. Total CO_2e emissions will be directly related to the size of an organisation or an investment portfolio. Scaling of Total CO_2e emissions enables comparison because it provides a perspective on the relative efficiency of an organisation or investment portfolio.

The two most popular scaling methods are to calculate the total of CO_2e emissions per million dollars of enterprise value including cash (EVIC) or per million dollars of revenue. The Aviva climate model provides both measures, although carbon intensity by EVIC was introduced for the 2021 Climate reporting cycle and therefore is not available as part of the baseline metrics. Given that CO_2e emissions represent the numerator in both carbon intensity calculations, the calculations are limited to MSCI CO_2e data for Equity and Corporate Bond asset classes held by the default investment portfolios.

Temperature Alignment

Aviva use portfolio warming potential metrics to assess credit, equity, real estate, green infrastructure and sovereign bond investments' alignment with the Paris Agreement target. This is based on the alignment of each company within the portfolio to the sectoral greenhouse gas emission intensity needed for each sector to make its contribution to reach the Paris Agreement target.

The portfolio warming potential methodology captures Scope 1, 2 and 3 emissions and a cooling potential element, to capture avoided emissions based on low carbon patents and revenues, as well as company-reported decarbonisation targets to provide a forward-looking perspective[19].

The portfolio warming measure covers Aviva's most material exposures:

- Aviva uses MSCI analysis to provide warming potential temperatures for its equity, corporate bond and property investments.
- Aviva has derived portfolio warming potential temperatures for sovereign exposures based on an analysis of individual governments' climate actions and how they compare against the Paris Agreement target, taking into account independent analysis conducted by organisations such as Climate Action Tracker[20].
- The warming potential for green infrastructure assets is based on internal analysis.

Over 2022, Aviva expects to move to a revised portfolio alignment measure provided by MSCI - Implied Temperature Rise, which is more closely aligned to the TCFD consultation recommendations specifically set out by the Portfolio Alignment Team in their paper 'Measuring Portfolio Alignment'.

19 Scope 3 emissions data is largely estimated. To account for this, Aviva has applied a credibility weighting to the Scope 3 element contribution to its overall warming potential. The sensitivity of its overall warming potential to the credibility weighting applied is ±0.2°C

20 The Climate Action Tracker is an independent scientific analysis tracking government climate action since 2009. https://climateactiontracker.org/countries/uk/

Glossary

Climate-related Financial Terminology

Active Ownership
Actively engaging with the managers and boards of directors of investee companies on business strategy and execution, including specific sustainability issues and policies. It is seen as a means of reducing investment risk, enhancing long term shareowner value, or both.

Biofuel
Biofuel is a fuel produced from organic matter or waste through contemporary processes that is used as an alternative to fossil fuels

Carbon capture and storage (CCS)
Technology that captures carbon dioxide before it is released into the atmosphere by industrial processes. It captures, transports and then permanently stores CO_2.

Carbon footprint
In a portfolio context - the value of shares held over company market cap, multiplied by total carbon emissions for the company, to give emissions "owned".

Carbon intensity
An entity's carbon emissions, typically divided by its revenues, though the denominator can also be square metre, per employee, unit of production, etc.

Carbon neutral
The amount of carbon released is offset by a reduction in emissions or a removal of carbon. These carbon savings could come in the form of carbon credits that do not represent removals of carbon from the atmosphere, but instead emissions that have been reduced from a business as usual baseline. These types of carbon credits are not technically 'removals' which they would need to be to conform with the IPCC definition.

Carbon offsetting
Compensating for emissions by paying for equivalent carbon removal by others.

Carbon removal
TThe process of removing carbon dioxide from the atmosphere and locking it away for decades, centuries, or millennia. This could slow, limit, or even reverse climate change. Examples include nature-based solutions such as reforestation or capturing and sequestering carbon from biofuel or technology-based solutions such as carbon capture and storage from an industrial process or direct air capture.

Climate crisis
This is a term describing global warming and climate change, and their consequences. The term has been used to describe the threat of global warming to the planet, and to urge aggressive climate change mitigation.

Climate transition
The transition to a low carbon world.

CO_2e
Stands for CO_2 equivalent. There are a number of greenhouse gases which warm the earth at different intensity levels such as water vapour, carbon dioxide (CO_2), methane (CH4), nitrous oxide (N2O), hydrochlorofluorocarbons (HCFCs), ozone (O3), hydrofluorocarbons (HFCs),and perfluorocarbons (PFCs). Rather than providing metrics for each gas they are converted into CO_2e for reporting.

COP
Conference of the Parties
The COP is the decision-making body of the UN Convention on Climate Change (UNFCC) which meets annually with government, public and private organisations and officials who are involved in addressing climate change.
https://www.unccd.int/convention/conferenceparties-cop

Divestment
The act of dissociating or selling assets and securities due to behaviour not aligned with ESG values, or as a way to display strong commitment to ESG and responsible investing practices.

Glossary continued

Engage and divest	Engagement is where shareholders seek to influence firm behaviour through direct engagement, filing shareholder proposals and voting at AGMs. Divestment is where shareholders sell a firms' shares, typically because engagement has failed to influence the firm's behaviour, or the firm does not meet the investor's minimum ESG standards
Environmental Factors	The "E" in ESG, environmental factors include things like climate impact and environmental challenges and opportunities, such as energy use, waste production & management, climate change, pollution, etc.
Environmental, Social, and Governance (ESG)	A term typically used in an investment context to denote the non-financial aspects of a company's performance that are key contributors to its bottom line. Environmental (e.g., pollution), Social (e.g., labour standards) and Governance (e.g., board diversity and accountability) are the three factors commonly used to measure the sustainability and social impact of a firm.
ESG Integration	Explicitly including environmental, social, and governance factors during the investment process, specifically with the goal of long-term performance growth and risk mitigation.
Ethical investments	Ethical investing refers to the practice of using one's ethical principles as the primary filter for the selection of securities investing. Ethical investing depends on an investor's views. Ethical investing gives the individual the power to allocate capital toward companies whose practices and values align with their personal beliefs. Choosing an investment based on ethical preferences is not indicative of the investment's performance.
Global Warming Potential (GWP)	From a climate science perspective, GWP was developed to enable a comparison of warming impacts of different greenhouse gases.
Greenhouse gases (GHG)	Gases including carbon dioxide and methane that trap some of the heat the earth radiates back out into space, leading to the earth being warmer than it otherwise would be.
Greenwashing	Falsely claiming or exaggerating sustainable characteristics or environmental benefits provided by a fund, business practice or company. "Rainbow-washing" is the same idea, with regards to use of the Sustainable Development Goals.
IPCC	Intergovernmental Panel on Climate Change (https://www.ipcc.ch/) This Is the United Nations body for assessing the science related to climate change.
Negative emissions technologies	Technologies that enable carbon to be removed from the atmosphere e.g., machines that capture carbon dioxide from the air and sequester it.
Net Zero Asset Owner Alliance	A United Nations convened group of 33 institutional investors who have committed to transitioning their investment portfolios to net-zero greenhouse gas emissions by 2050. https://www.unepfi.org/net-zero-alliance/
Net Zero company	This target covers all 'Scopes 1, 2 and 3' carbon emissions (including investment, insurance, operations, supply chain)
Net Zero target	A firm target to make Net Zero GHG emissions by a specific date, at which point having sought to reduce the emissions as much as possible, any GHG which continues to be released into the atmosphere is balanced by an equivalent amount being removed by offsetting through carbon removals.
Paris Agreement	A legally binding international treaty on climate change, to limit global warming. It was adopted by 196 Parties at COP 21 in Paris in December 2015 and entered into force on 4 November 2016.
Paris Agreement target	This is a 1.5°C target set by the global Paris climate change deal in 2015 to limit the damage wreaked by acute events such as extreme weather and chronic events such as sea level rise.
Physical Risks	Physical risks are outcomes from disruptive events like extreme weather that have a direct impact on society and the economy.
Renewable Energy	Energy attained from perpetual, unending sources, such as collection of energy with solar panels or wind turbines.

Glossary continued

Science Based Targets Initiative (SBTi)
This is a collaboration between United Nations Global Compact, CDP (a global disclosure system), World Resources Institute and Worldwide Fund for Nature. It supports companies to set emission reduction targets in line with the decarbonisation required to limit global temperature increases to 1.5°C.
https://sciencebasedtargets.org/

Scope 1 emissions
Scope 1 emissions are greenhouse gas emissions that a company is directly responsible for, such as emissions from on-site burning of fossil fuels or emissions from fleet vehicles

Scope 2 emissions
Scope 2 emissions are greenhouse gas emissions from sources that a company owns or controls, such as the generation of electricity, heat, or steam purchased from a utility provider.

Scope 3 emissions
Scope 3 emissions are greenhouse gas emissions from sources a company doesn't own or control but are related to its operations value chain, such as employee commuting or contracted solid waste and wastewater disposal. For Aviva, this includes investments and insurance activities (customer value chain emissions).

Sustainability
"All activity that can be considered as taking account of profit, people and the planet (also known as the 'triple bottom line'). A more formal definition is "meeting the needs of the present without compromising the ability of future generations to meet their needs"

Sustainable Development Goals
These are 17 global goals designed to be a "blueprint to achieve a better and more sustainable future for all". They were set in 2015 by the United Nations and are meant to be achieved by 2030.
Many firms use them to orient their sustainability action.

TCFD
Task Force on Climate-related Financial Disclosures (https://www.fsb-tcfd.org/)

The Financial Stability Board created the TCFD to improve and increase reporting of climate-related financial decision useful information. Governments are encouraging firms to make disclosures aligned to the TCFD framework to enable investors to compare them and allocate capital accordingly. The UK Government made TCFD reporting mandatory for all listed companies and large asset owners in 2022.

Transition Activities
Refers to activities that facilitate the transition to a carbon-neutral economy.

Transition Risks
Transition risks relate to risks associated with moving towards a less polluting, green economy.

UNGC
The United Nations Global Compact is a non-binding United Nations pact to encourage businesses worldwide to adopt sustainable and socially responsible policies, and to report on their implementation
https://www.unglobalcompact.org/

UNPRI
The United Nations Principles for Responsible Investment is an international network of investors working together to implement its six aspirational princi-ples, often referenced as "the Principles".
https://www.unpri.org/

Glidepaths and Scenario Analysis for Default Investment Arrangements

Glidepaths and Scenario Analysis for Default Investment Arrangements continued

My Future Focus – Standard default investment arrangement

1. Glidepath

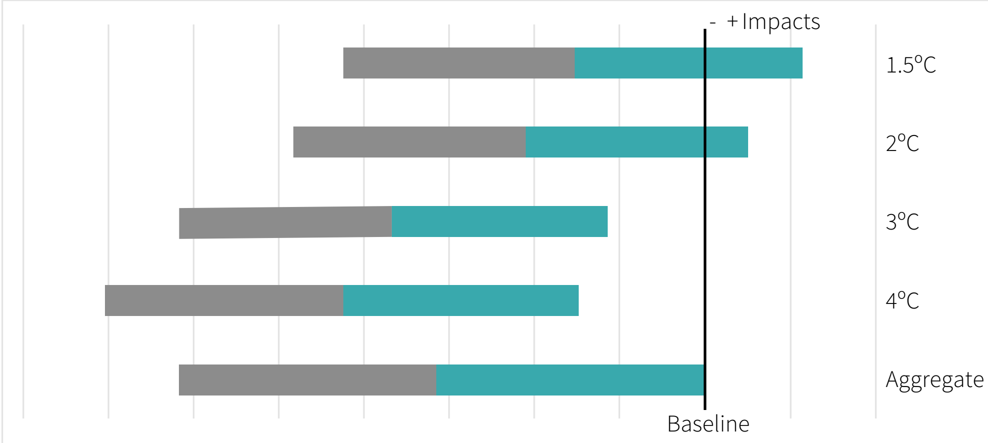
The current respective portfolio allocations that apply at different lifestages within the My Future Focus default investment arrangement are as follows:

Number of Years before member reaches Selected Retirement Date (SRD)	% Allocation to My Future Focus Growth fund	% Allocation to My Future Focus Consolidation fund
More than 10 years	100%	0%
10 years	100%	0%
8 years	80%	20%
6 years	60%	40%
4 years	40%	60%
2 years	20%	80%
0 years	0%	100%

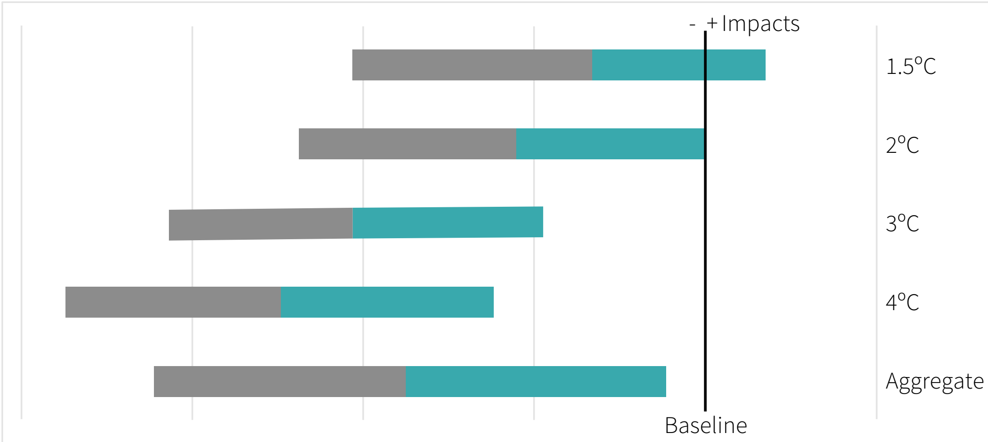
2. Climate VaR Scenario Analysis for each of the funds in the Glidepath

The Climate VaR for the individual funds within the My Future Focus default investment arrangement is shown below.

My Future Focus Growth fund



My Future Focus Consolidation fund



Glidepaths and Scenario Analysis for Default Investment Arrangements continued

My Future – Alternative default investment arrangement

1. Glidepath

The current respective portfolio allocations that apply at different lifestages within the My Future default investment arrangement are as follows:

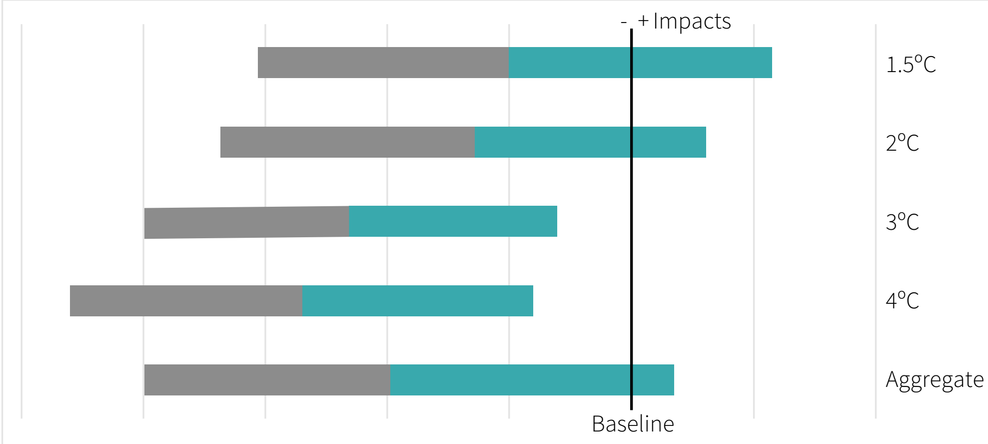
Number of Years before member reaches Selected Retirement Date (SRD)	% Allocation to My Future Focus Growth fund	% Allocation to My Future Focus Consolidation fund
More than 15 years	100%	0%
15 years	100%	0%
10 years	67%	33%
5 years	33%	67%
0 years	0%	100%

2. Climate VaR Scenario Analysis for each of the funds in the Glidepath

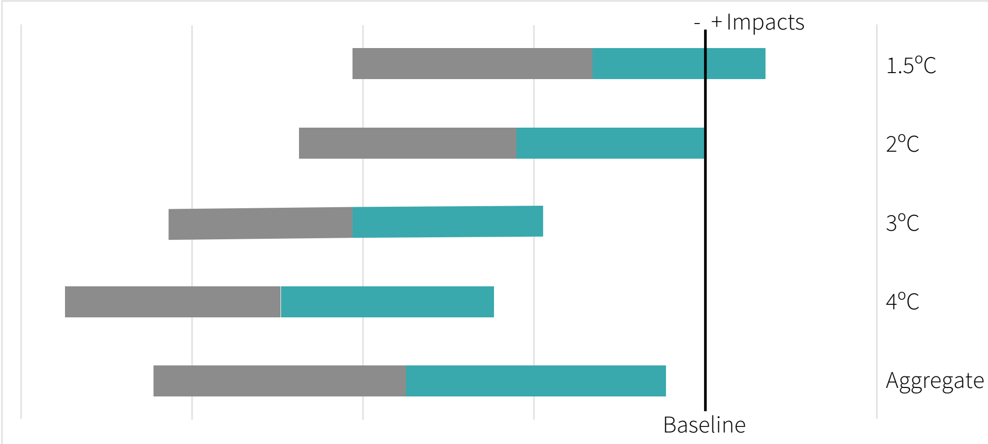
The Climate VaR for the individual funds within the My Future default investment arrangement is shown opposite.

The information in Section 1 above can be utilised to determine what the respective impact would be for different age cohorts of members at different lifestages within the glidepath.

My Future Growth fund



My Future Focus Consolidation fund



Glidepaths and Scenario Analysis for Default Investment Arrangements continued

The Stewardship Lifestyle – Alternative default investment arrangement

1. Glidepath

The current respective portfolio allocations that apply at different lifestages within the Stewardship Lifestyle default investment arrangement follows:

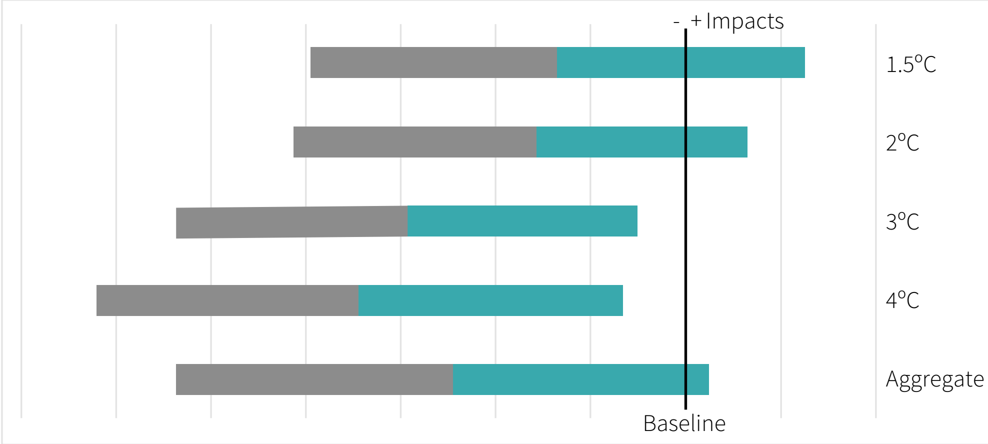
Number of Years before member reaches Selected Retirement Date (SRD)	% Allocation to Stewardship International Equity Equity fund	% Allocation to Stewardship Managed fund	% Allocation to Stewardship Bond fund
More than 10 years	40%	60%	0%
10 years	40%	60%	0%
8 years	32%	58%	10%
6 years	24%	56%	20%
4 years	16%	54%	30%
2 years	8%	52%	40%
0 years	0%	50%	50%

2. Climate VaR Scenario Analysis for each of the funds in the Glidepath

The Climate VaR for the individual funds within the Stewardship Lifestyle default investment arrangement is shown opposite.

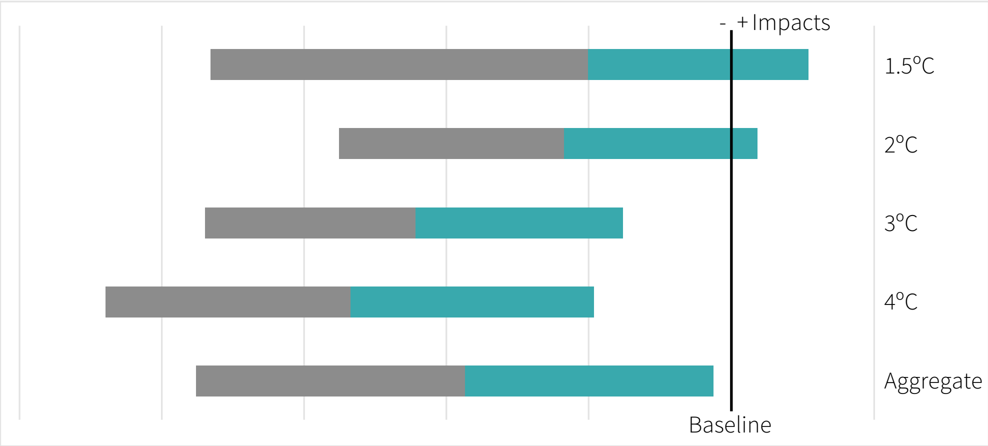
The information in Section 1 above can be utilised to determine what the respective impact would be for different age cohorts of members at different lifestages within the glidepath.

Stewardship International Equity fund

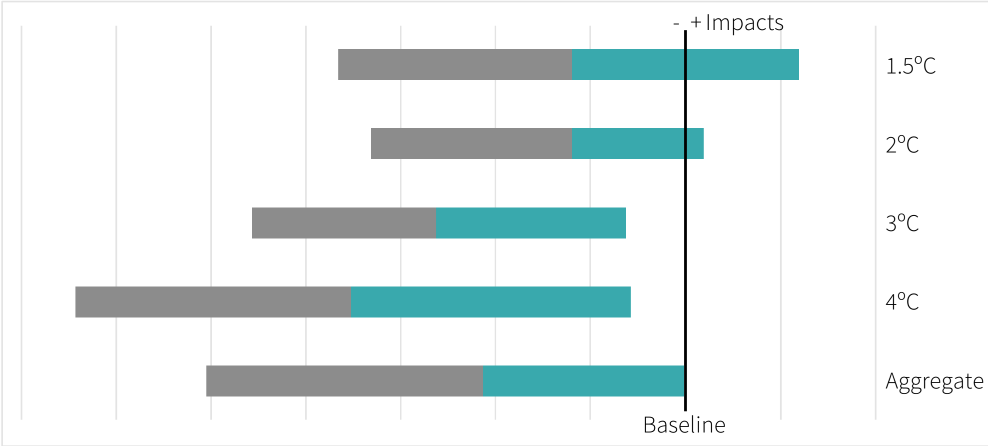


Glidepaths and Scenario Analysis for Default Investment Arrangements continued

Stewardship Managed fund



Stewardship Bond fund



Glidepaths and Scenario Analysis for Default Investment Arrangements continued

Default investment arrangement for Mott MacDonald Section

1. Glidepath

The current respective portfolio allocations that apply at different lifestages within the default investment arrangement for the Mott MacDonald Section are as follows:

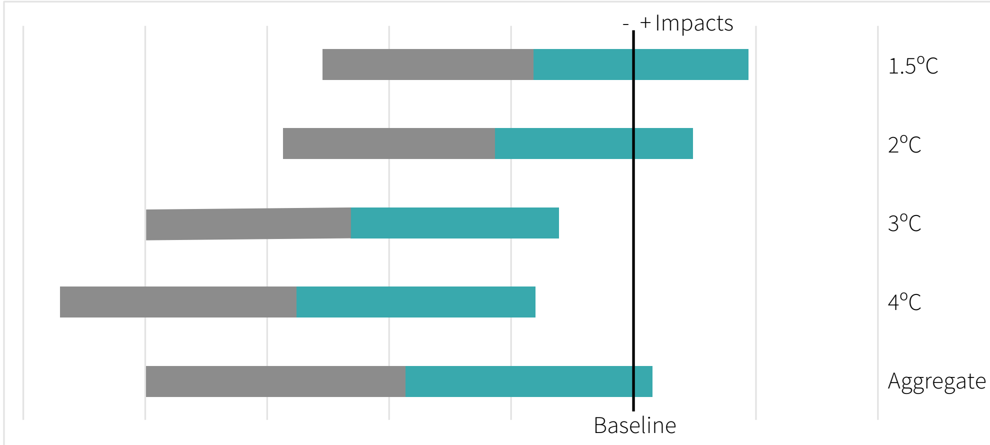
Number of Years before member reaches Selected Retirement Date (SRD)	% Allocation to LIP Global Equity fund	% Allocation to LIP Diversified fund	% Allocation to LIP Bond fund	% Allocation to LIP Liquidity fund
More than 30 years	100%	0%	0%	0%
30 years	100%	0%	0%	0%
25 years	89%	11%	0%	0%
20 years	77%	23%	0%	0%
15 years	66%	34%	0%	0%
10 years	55%	45%	0%	0%
5 years	44%	50%	6%	0%
0 years	15%	50%	10%	25%

2. Climate VaR Scenario Analysis for each of the funds in the Glidepath

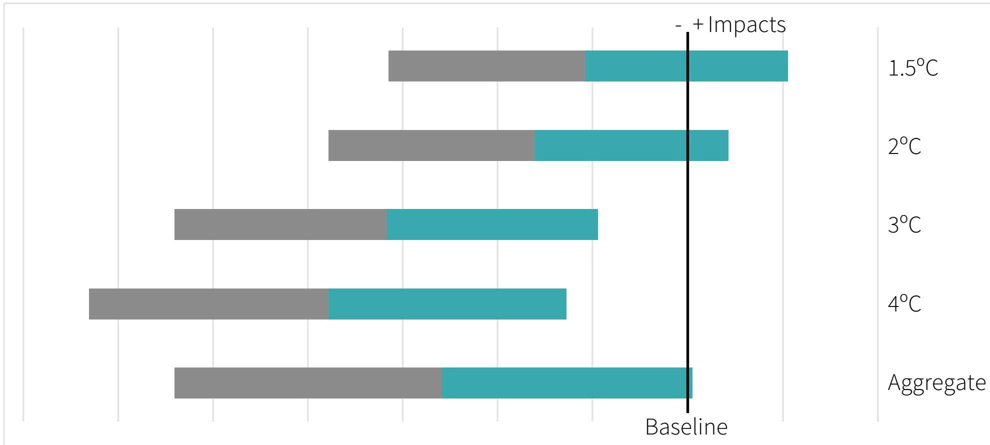
The Climate VaR for the individual funds within the default investment arrangement for the Mott MacDonald Section is shown opposite.

The information in Section 1 above can be utilised to determine what the respective impact would be for different age cohorts of members at different lifestages within the glidepath.

LIP Global Equity fund

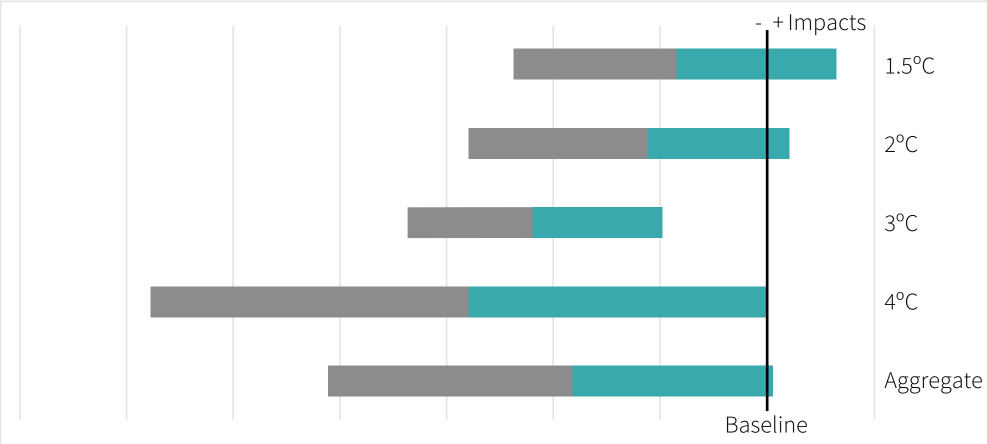


LIP Diversified fund

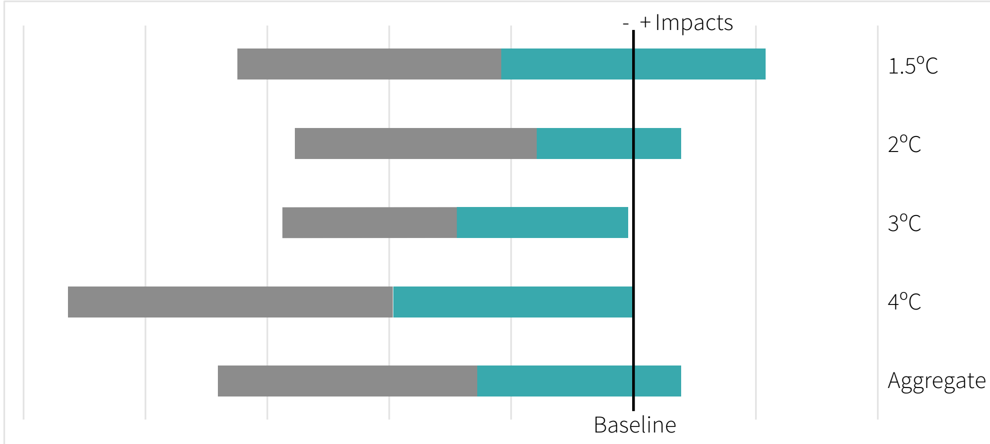


Glidepaths and Scenario Analysis for Default Investment Arrangements continued

LIP Bond fund



LIP Liquidity fund



Glidepaths and Scenario Analysis for Default Investment Arrangements continued

Default investment arrangement for Wm Morrison Section

1. Glidepath

The current respective portfolio allocations that apply at different lifestages within the default investment arrangement for the Wm Morrison Section are as follows:

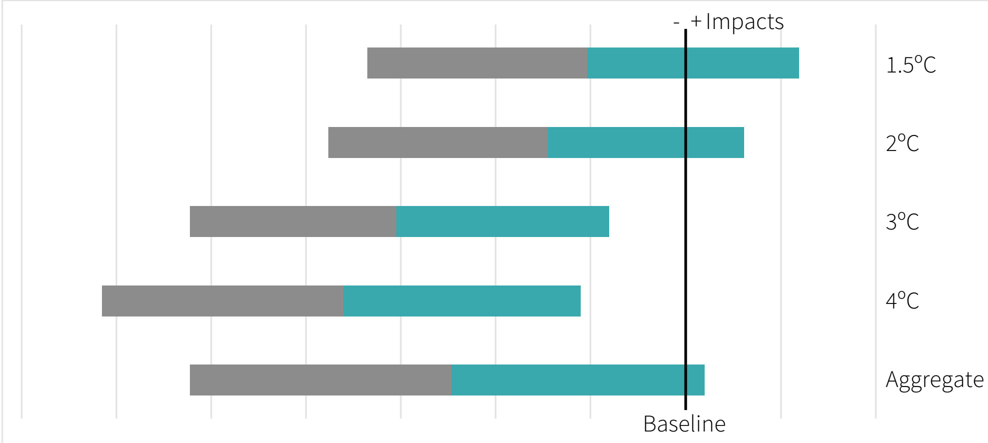
Number of Years before member reaches Selected Retirement Date (SRD)	% Allocation to Morrisons Growth fund	% Allocation to Morrisons Pre-Retirement fund	% Allocation to BlackRock Institutional Sterling Liquidity fund
More than 15 years	100%	0%	0%
15 years	100%	0%	0%
10 years	75%	25%	0%
5 years	50%	50%	0%
0 years	0%	0%	100%

2. Climate VaR Scenario Analysis for each of the funds in the Glidepath

The Climate VaR for the individual funds within the default investment arrangement for the Wm Morrison Section is shown opposite.

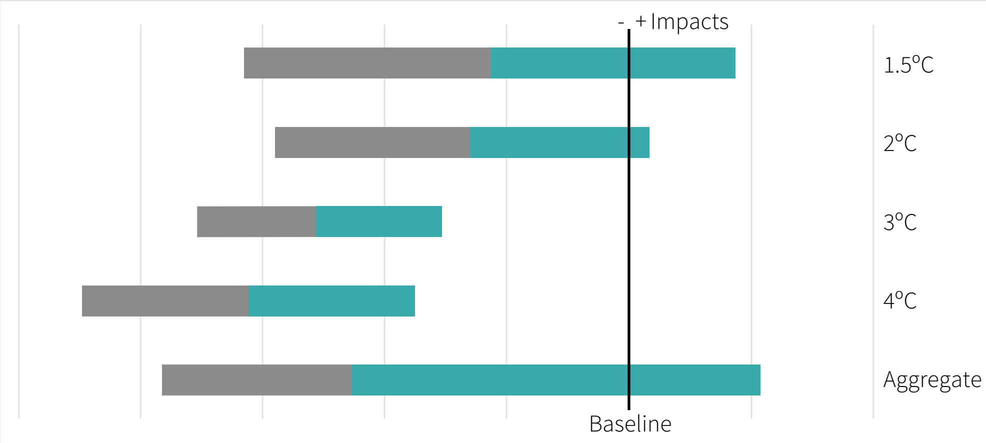
The information in Section 1 above can be utilised to determine what the respective impact would be for different age cohorts of members at different lifestages within the glidepath.

Morrisons Growth fund

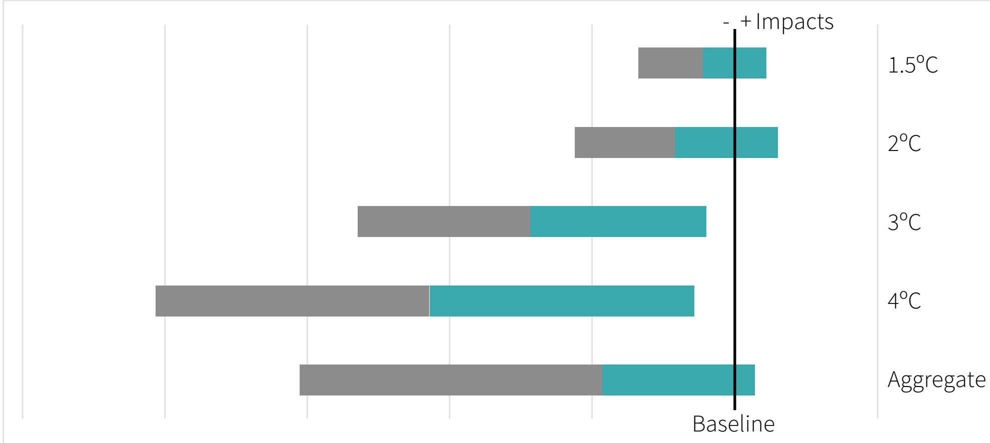


Glidepaths and Scenario Analysis for Default Investment Arrangements continued

Morrisons Pre-Retirement fund



BlackRock Sterling Liquidity fund



Glidepaths and Scenario Analysis for Default Investment Arrangements continued

Default investment arrangement for L'Oréal Section

1. Glidepath

The current respective portfolio allocations that apply at different lifestages within the default investment arrangement for the L'Oréal Section are as follows:

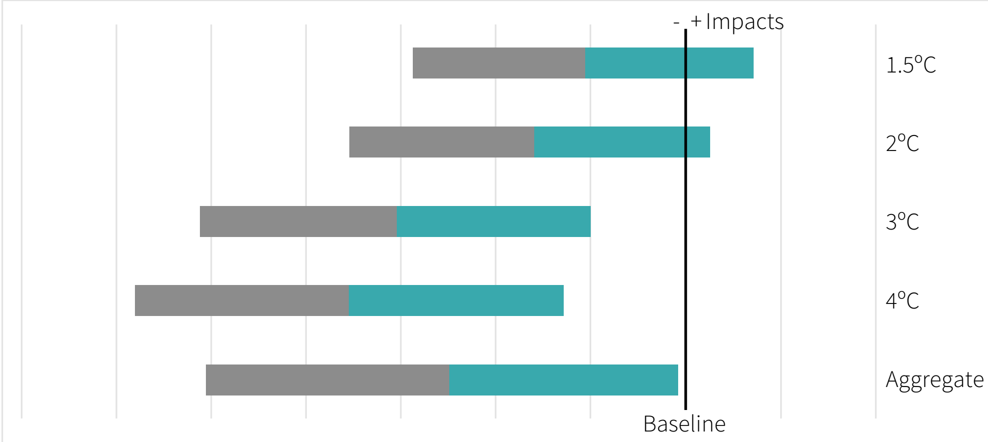
Number of Years before member reaches Selected Retirement Date (SRD)	% Allocation to L'Oréal Growth fund	% Allocation to L'Oréal Diversified fund	% Allocation to My Future Cash Lump Sum fund
More than 20 years	100%	0%	0%
20 years	100%	0%	0%
15 years	69%	31%	0%
10 years	37%	63%	0%
5 years	6%	94%	0%
0 years	0%	0%	100%

2. Climate VaR Scenario Analysis for each of the funds in the Glidepath

The Climate VaR for the individual funds within the default investment arrangement for the L'Oréal Section is shown opposite.

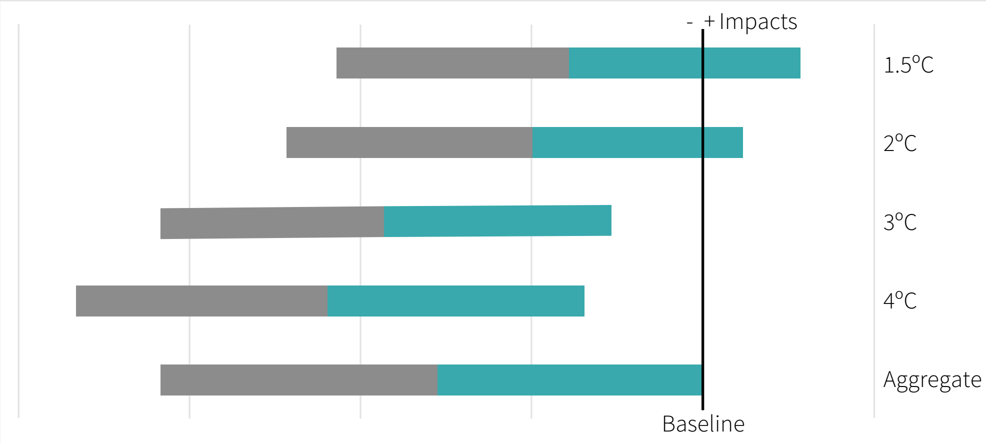
The information in Section 1 above can be utilised to determine what the respective impact would be for different age cohorts of members at different lifestages within the glidepath.

L'Oréal Growth Blend fund

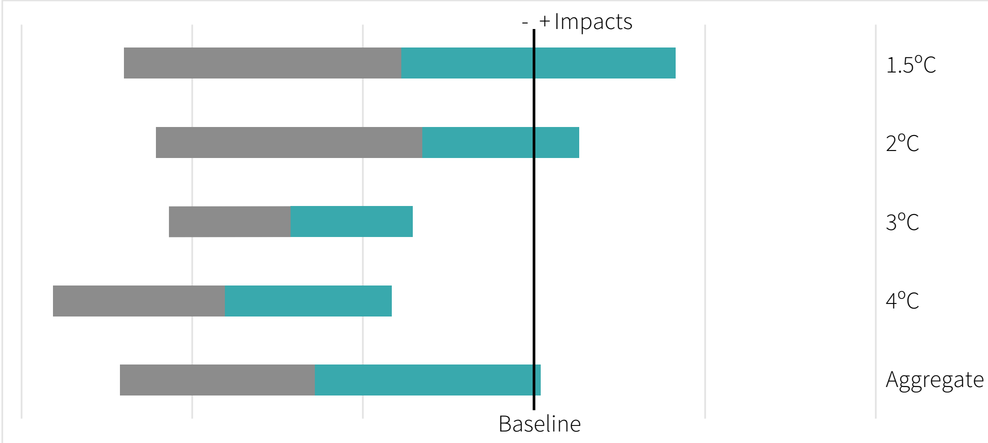


Glidepaths and Scenario Analysis for Default Investment Arrangements continued

L'Oréal Diversified Blend fund



My Future Cash Lump Sum Fund



Glidepaths and Scenario Analysis for Default Investment Arrangements continued

Default investment arrangement for Thomas Cook Section

1. Glidepath

The current respective portfolio allocations that apply at different lifestages within the default investment arrangement for the Thomas Cook Section are as follows:

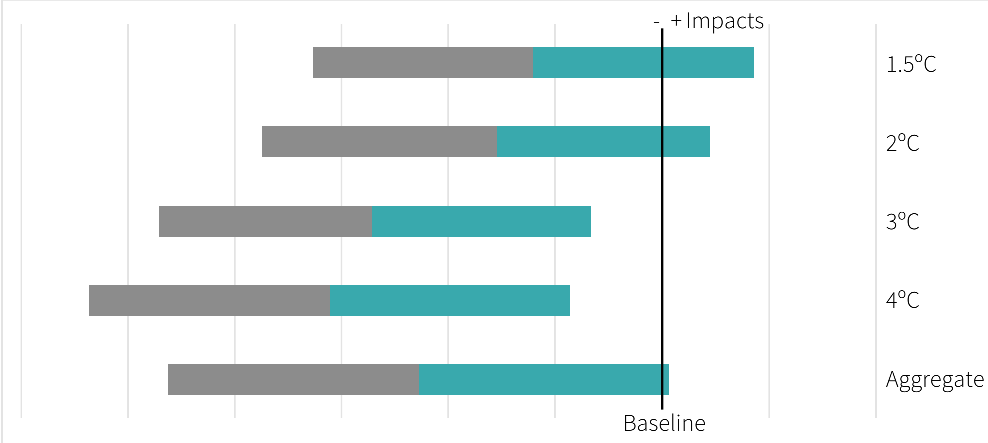
Number of Years before member reaches Selected Retirement Date (SRD)	% Allocation to TC Growth fund	% Allocation to TC Flexible Journey De-risking fund	% Allocation to BlackRock Sterling Liquidity fund
More than 8 years	100%	0%	0%
8 years	100%	0%	0%
6 years	75%	25%	0%
4 years	50%	45%	5%
2 years	25%	60%	15%
0 years	0%	75%	25%

2. Climate VaR Scenario Analysis for each of the funds in the Glidepath

The Climate VaR for the individual funds within the default investment arrangement for the Thomas Cook Section is shown opposite.

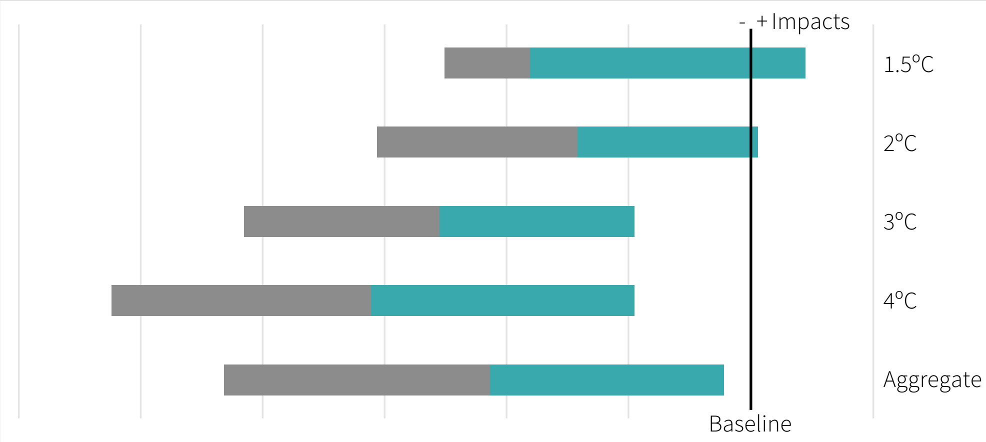
The information in Section 1 above can be utilised to determine what the respective impact would be for different age cohorts of members at different lifestages within the glidepath.

TC Growth fund

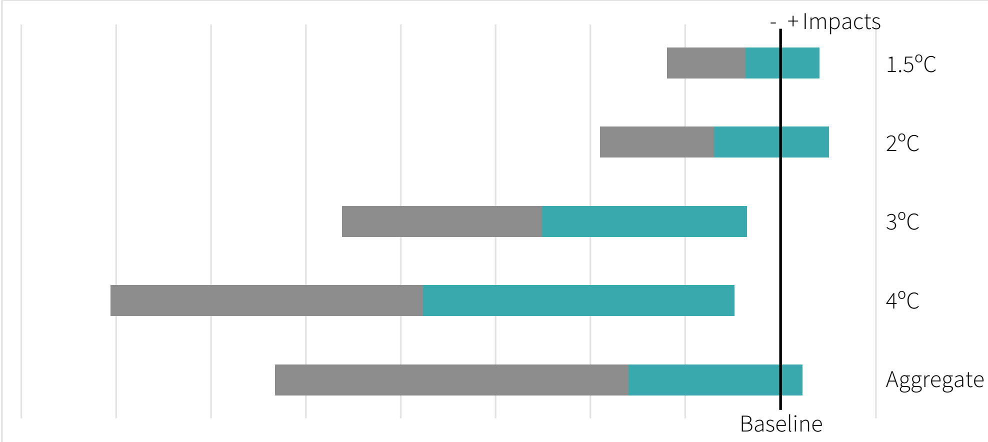


Glidepaths and Scenario Analysis for Default Investment Arrangements continued

TC Flexible Journey De-risking fund



BlackRock Sterling Liquidity Fund



If you have any questions, please contact
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