TCFD | TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

# Climate disclosures for year ending 31 December 2024

## The Aon MasterTrust

Produced by: The Aon MasterTrustee Limited

Date: July 2025

# Introduction

Climate change is affecting the planet, causing extreme weather events, impacting crop production and threatening Earth's ecosystems. Understanding the impact of climate change and the vulnerability of our members' retirement savings to climate-related risks will help us to mitigate the risks and take advantage of any opportunities.

Most of our members will be invested in The Aon MasterTrust (the "MasterTrust") for decades. For this reason, climate-related risks and opportunities are likely to play out over a long-time horizon and have an impact on our members' pension savings.

Both we, as the Trustee of The Aon MasterTrust, and Aon, as founder of The Aon MasterTrust, believe consideration of climate change to be a key part of our fiduciary duty to our members. For this reason, we have embedded consideration of climate change and broader environmental, social and governance issues into our investment strategy.

UK regulations require trustees to meet certain climate governance requirements and publish an annual report on their pension scheme's climate-related risks, in line with the recommendations of the Taskforce on Climate-related Financial Disclosure ("TCFD").

Better climate reporting should lead to better-informed decision-making on climate-related risks. On top of that, greater transparency around climate-related risks should increase accountability and provide decision-useful information to our members and other stakeholders.

This report sets out the annual climate disclosures for The Aon MasterTrust ("the MasterTrust") for the year ended 31 December 2024 and shares our progress on how we are managing climate-related risks impacting our members' pension savings. It has been prepared by us, the Aon MasterTrust Limited ("the Trustee"), in accordance with the regulations set out under The Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 (the "Regulations").

We're aware some of the terms used in this report may be unfamiliar and so we've included a glossary in Appendix 1.

What is TCFD?

The Financial Stability Board created the Taskforce on Climate-related Financial Disclosure ("TCFD") to develop recommendations on the types of information that entities should disclose to support investors, to assess and price risks related to climate change.

The TCFD has developed a framework to help companies and other organisations, including pension schemes, more effectively disclose climate-related risks and opportunities through their existing reporting processes.

Kim Nash, Chair of Trustees of the Aon MasterTrust
July 2025

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# Executive summary

Climate change is affecting our planet. Understanding the impact of climate change and the vulnerability of our members' retirement savings to climate-related risks will help us mitigate the risks and take advantage of any opportunities.

This report sets out the actions that we, the Trustee, have taken to understand the potential impact climate change could have on the MasterTrust.

Overarching our investment strategy is our belief that climate change poses systemic risks to financial markets due to both the physical impact of climate change and the effects of a transition to a more sustainable global economy.

In turn this is likely to impact the value of the MasterTrust's investments and our members' retirement benefits. This is important as most of our members will be invested in the MasterTrust for decades and the real impact of climate change is likely to be felt over the long-term.

To understand these risks and the potential impact on our members' retirement savings, we have carried out:

- qualitative assessment of the climate-related risks and opportunities through an annual climate risk assessment.
- quantitative analysis by means of climate change scenario analysis.

These assessments have led us to focus initially on the equity portfolio, reflecting the heightened climate-related risks associated with equity investment and the long-term investment horizon of many of our members. We also recognise that our other investments, including government and corporate bonds, have exposure to climate-related risks. Reflecting this, we are in the process of extending our approach to managing climate-related risks and opportunities to these assets.

Overall, we are comfortable that our investment strategy exhibits reasonable resilience under most of the climate change scenarios, particularly in the short to medium-term. This is due to the inclusion of climate transition strategies and an ESG overlay on the equity portfolio and inclusion of more defensive asset classes as members approach retirement.

**Our progress**

Working closely with our investment manager, Aon Investments, we have made changes to our investment strategy to help manage climate-related risks for our members and incorporate several climate-related opportunities we identified.

This is an ongoing process. This year we took further action, including an increase in the allocation to climate transition equities and launching two dedicated climate transition equity funds for inclusion in our wider fund range.

### What is TCFD?

The Financial Stability Board created the Taskforce on Climate-related Financial Disclosure ("TCFD") to develop recommendations on the types of information that entities should disclose to support investors, to assess and price risks related to climate change.

The TCFD has developed a framework to help companies and other organisations, including pension schemes, more effectively disclose climate-related risks and opportunities through their existing reporting processes.

Key highlights include:

- **Climate transition equity fund**: our investment manager allocates a large portion of our equities to a climate transition equity strategy and increased this allocation over 2024. Through this strategy we allocate more of our members' savings to companies involved with renewable energy and green technology, as well as to companies contributing to a 'just and fair' transition.

- **Climate transition emerging market equity fund:** our investment manager developed a second climate transition equity strategy with UBS Asset Management (one of the underlying managers) for our emerging market equity portfolio, which we introduced last year. This strategy follows the same approach as our climate transition equity fund and allows members to benefit from potentially higher returns from investing in emerging markets while also managing climate-related risks.

- **Aon Managed Global Impact Fund:** this fund invests in companies which are actively contributing to solutions to tackle climate change, as well as wider environmental and social issues. This fund allows our members to invest in these growth opportunities and see their retirement savings make a positive impact on our planet.

- **ESG overlay on multi-factor equities:** our investment manager incorporates an allocation to multi-factor equities, implemented using an Aon designed index, within our default strategies. This fund includes an environmental, social and governance ("ESG") overlay with a focus on managing climate-related risks, as well as some further ESG screens. Specifically, the fund invests more in companies with lower carbon emissions and less in companies with higher carbon emissions. The fund also excludes investment in some of the worst-polluting areas such as thermal coal, tar sands oil extraction and fracking.

The vast majority of our equity portfolio (98% for the Aon Managed Core Retirement Pathway Funds and 100% for the Aon Managed Retirement Pathway Funds) is invested either in climate transition equity funds, funds with an ESG overlay or ESG screen, or an impact strategy.

Over time we expect these changes will help manage climate-related risks for our members and be additive for member returns, ultimately delivering better returns for the amount of risk taken.

We plan next to extend our approach to managing climate-related risks and opportunities to our investments in other assets including corporate bonds. Our investment manager will be introducing an actively managed corporate bond fund to one of the default strategies in early 2025, replacing the existing passive corporate bond fund. Through this new fund we will allocate more of our members' savings to companies who are well placed to manage climate related risks and companies contributing to solutions to tackle climate change, as well as wider environmental and social issues.

Looking ahead, we believe there are opportunities to invest in private markets, for example, to access renewable infrastructure and real estate and provide improved expected outcomes for our members. This is consistent with ongoing discussions with the UK government regarding investments in private markets. Our investment manager has carried out research on private markets to identify the most suitable asset classes and funds to include within the investment strategy.

**Our net zero commitment**

Recognising the importance of managing climate-related risks for our members, we have committed to achieving net zero emissions within our default strategy by 2050. To achieve this goal, we have set ourselves interim targets of reducing our emissions, as measured by our carbon footprint, as follows:

- A 30% reduction by 2025.
- A 50% reduction by 2030.

These are based on scope 1 and 2 emissions and are relative to a base line or starting point of 2019.

These interim targets focus on the carbon footprint of our default strategies, excluding sovereign bonds. Our ultimate goal of achieving net zero by 2050 includes all assets and hence will also be influenced by governments honouring their net zero commitments.

We are pleased to report that members invested in the Aon Managed Core Retirement Pathway Funds have seen a 67% reduction in their carbon footprint on those assets excluding sovereign bonds since 2019. For members invested in the Aon Managed Retirement Pathway Funds, they have benefited from a 75% reduction in their carbon footprint on those assets excluding sovereign bonds since 2019.

This means that, based on current emissions data and market conditions, we have met both our 2025 and our 2030 target on our default strategies, excluding sovereign bonds, to achieve a 50% reduction in emissions intensity. Looking ahead, we recognise that we may see smaller reductions, or even an increase, in our reported carbon footprint over the next few years due to market movements and variance in greenhouse gas emissions reported by companies. We will review our targets and agree a new interim target for reporting purposes to ensure progress continues to be made towards our net zero target.

These reductions are the first steps in our journey towards achieving our net zero commitment. Looking ahead, we expect to achieve our net zero commitment through a combination of:

- **Engagement**: we want to drive positive investment change and accountability by working with asset managers, regulators, academics and the investment industry.

- **Innovation**: we want to accelerate progress with innovative product design and better-quality carbon emissions data and metrics.

- **Insights**: we want to provide insights on our progress and the progress of the funds in which we invest towards net zero portfolios, through transparent reporting and communication with our members, clients and other stakeholders.

We look forward to sharing our progress with you in future reports.

We hope you enjoy reading this report and understanding more about how the Trustee is managing climate-related risks and opportunities within the MasterTrust.

Kim Nash
**on behalf of the Trustee of The Aon MasterTrust**

# About the MasterTrust

We provide a brief overview of the MasterTrust and our investments.

# About the MasterTrust

## What is the MasterTrust?

The MasterTrust is a multi-employer occupational trust-based, defined contribution pension scheme run by Aon. It allows employees and former employees of unconnected employers to save for their retirement.

It works by investing the contributions paid by members and their employers. These investments aim to grow over the long term, by investing in or lending to companies and governments around the world, so members have more to spend in retirement.

The MasterTrust gives members full flexibility when it comes to taking retirement benefits and provides lots of support along the way. This means members can control when and how they take their benefits.

## Key facts

Below we summarise the total assets, membership and number of employers at 31 December 2024:

| | | |
|---|---|---|
| **£5,300 million** | **178,414** | **43** |
| Total assets invested in the MasterTrust | Total members in the MasterTrust | Total employers using the MasterTrust |

Source: Aon. All data as at 31 December 2024.

## Our investments

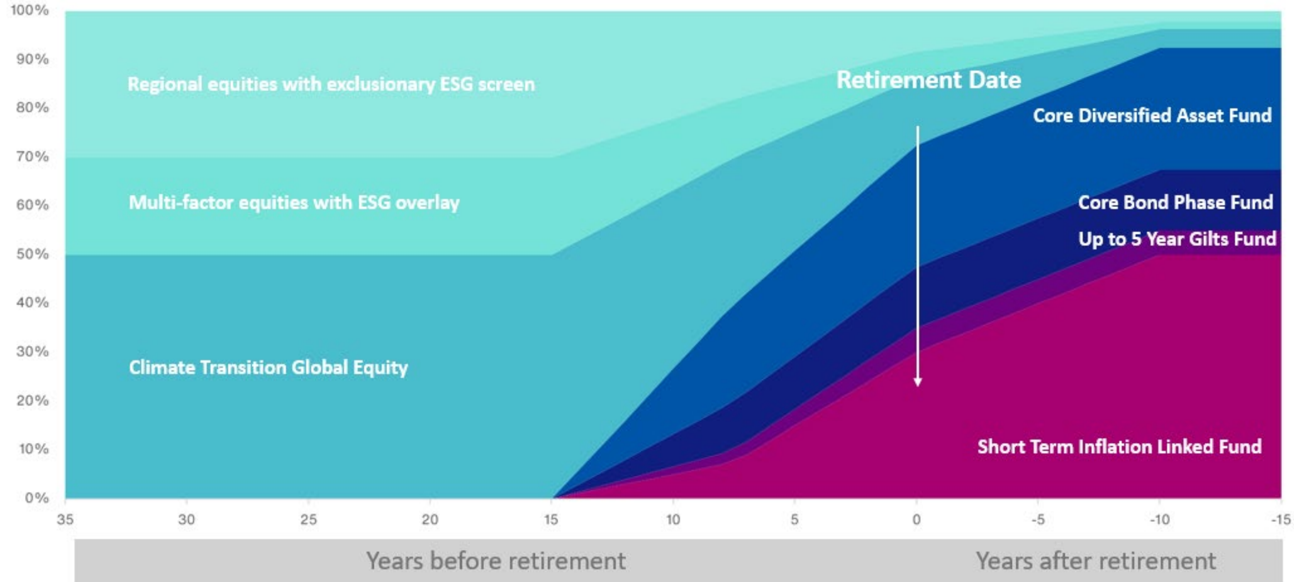
The MasterTrust offers two ready-made investment strategies, the Aon Managed Core Retirement Pathway Funds and Aon Managed Retirement Pathway Funds, both of which are used as the default option by different employer sections of the MasterTrust. The MasterTrust also offers a bespoke default strategy to one employer section.

In summary the strategies:

- **Equity focus in the early years**: Members are invested wholly in growth assets, mainly through a well-diversified equity portfolio, in the early years. This allows our members to benefit from the higher expected returns over the long-term, recognising their long investment time horizon.

- **Introducing more defensive assets closer to retirement**: As members approach retirement, our default strategies start to introduce more defensive asset classes, reflecting a shorter time to retirement.
- **Diversified mix at retirement**: Our default strategies invest across a diversified mix of assets at retirement, recognising that for those of our members who wish to remain invested their savings will need to generate above inflation returns.
- **De-risking continues into retirement**: The asset mix within our default strategies continues to change for a further ten years after retirement, recognising that members' risk tolerance keeps changing.

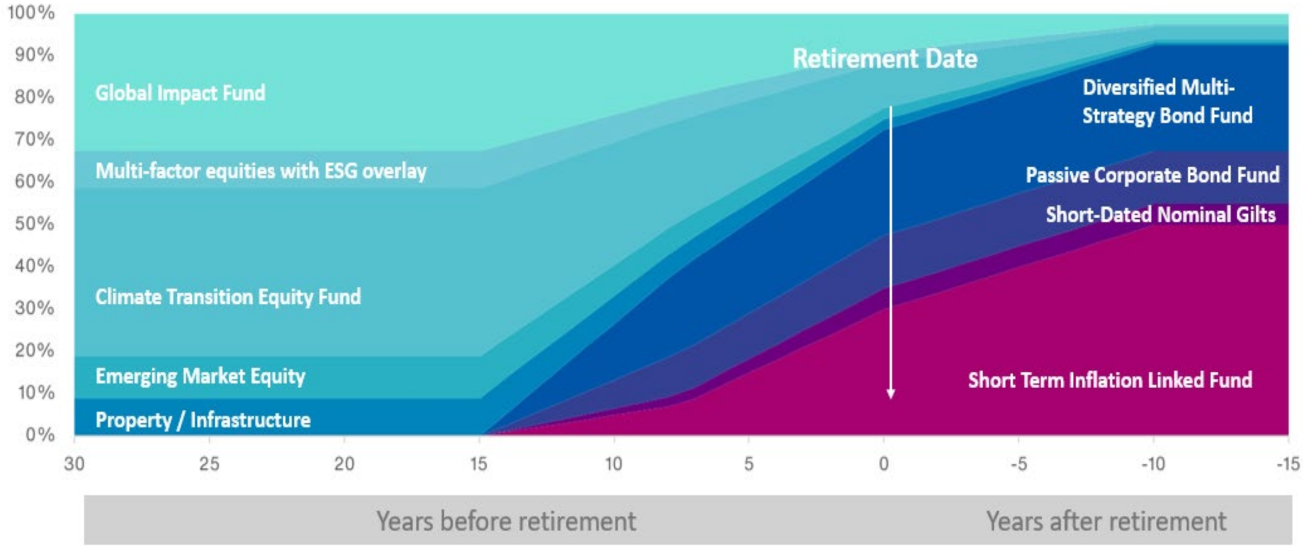
**Aon Managed Core Retirement Pathway Funds**




Source: Aon Investments. Chart shows strategic asset allocation as at 31 December 2024.

Within the growth phase, 50% of the equities are invested in a Global Equity Climate Transition Fund, with a further 20% invested in multi-factor equities which includes an ESG overlay. Virtually all remaining equities include an ESG screen.

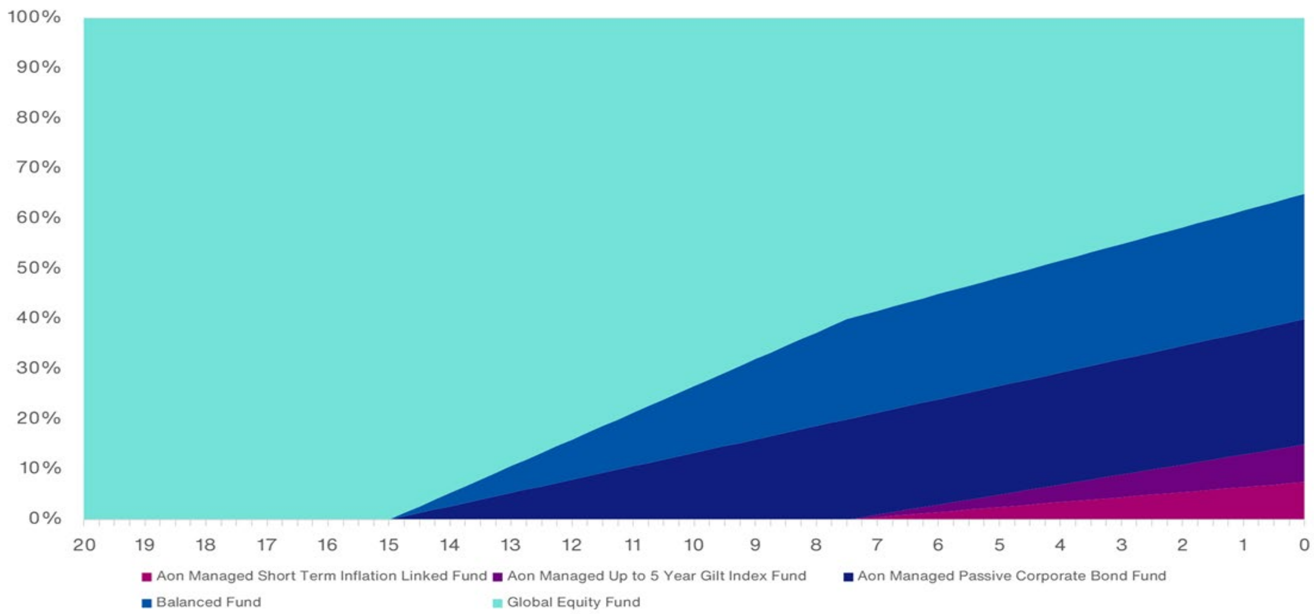
**Aon Managed Retirement Pathway Funds**




Source: Aon Investments. Chart shows strategic asset allocation as at 31 December 2024.

The Aon Managed Retirement Pathway Funds includes a 10% allocation to the Aon Managed Global Impact Fund in the growth phase. Alongside, the growth phase includes a 44% allocation to a Global Equity Climate Transition Fund, a 10% allocation to an Emerging Market Equity Climate Transition Fund, with a further 36% is invested in multi-factor equities which includes an ESG overlay.

**Client Bespoke Default Strategy**




Source: Aon Investments. Chart shows strategic asset allocation as at 31 December 2024.

Within the growth phase, all of the assets are invested in global equities. No ESG screens or overlays are applied.

The MasterTrust also offers a wider range of self-select funds for our members to choose. These cover the main asset classes including equities, property, multi-asset, corporate bonds, government bonds and cash.

## Assets invested

As at 31 December 2024, the MasterTrust had a total of £5,300 million assets, of which £4,843 million or 91% was invested in the two default strategies (£4,515 million in the Aon Managed Core Retirement Pathway Funds, and £328 million in the Aon Managed Retirement Pathway Funds). A further £108 million was invested in the client bespoke strategy.

The remaining assets were invested in the wider self-select fund range; no single self-select fund represented more than 10% of the total assets.

# Governance

Governance is the way the MasterTrust operates and the internal processes and controls in place to ensure appropriate oversight by the Trustee.

Those undertaking governance activities are responsible for managing climate-related risks and opportunities. This includes us, as the Trustee, and others making decisions for the MasterTrust including decisions relating to the MasterTrust's investments.

# Our MasterTrust's governance

## Role of the Trustee

We are responsible for overseeing all strategic matters related to the MasterTrust. This includes the governance and management frameworks relating to environmental, social and governance ("ESG") considerations and climate-related risks and opportunities.

Given its importance, we have not identified one individual to be specifically responsible for our response to climate risks and opportunities. Rather the whole Trustee board takes collective responsibility for setting the MasterTrust's climate change risk framework.

We have agreed our climate-related beliefs and our approach to managing climate change risk. These are set out in the MasterTrust's Statement of Investment Principles ("SIP"), which is reviewed annually and publicly available on our website.

### Our climate beliefs

**In summary, we believe that:**

- **Environmental, social and governance factors (including climate change) impact long-term returns and risk management.**
- **Climate change is an urgent and critical global challenge.**
- **Sustainability risks have the potential for material adverse long-tail risks.**
- **Stewardship and engagement provide opportunities to preserve and enhance the value of assets.**
- **We have a commitment to aim to reduce carbon emissions to net zero by 2050, by 50% by 2030 and by 30% by 2025. Our starting point, or 'baseline', for progress against these targets is 2019.**

We assess climate-related risks and opportunities over four different time horizons, which we believe are most appropriate given our membership, namely:

- ***Short-term***: 1-3 years for members planning to retire in the next two to three years or members already taking their benefits.
- ***Medium-term***: 4-10 years for members approaching retirement and planning to retire within the next 10 years.
- ***Long-term***: 11-20 years for members in the mid-part of their career.
- ***Very long-term***: 21+ years. We also recognise that younger members are invested for the very long-term and many will have timeframes significantly in excess of 20 years.

We recognise that these time horizons may vary between different members and that members have the option to remain in the MasterTrust and stay invested after retirement. As an example, older members that chose to remain in the MasterTrust after retirement will be exposed to climate-related risks and opportunities over the very long-term.

Climate-related risks and opportunities are integrated into our risk management framework so we can maintain oversight of the climate-related risks and opportunities that are relevant to the MasterTrust.

We meet formally each quarter and supplement this with regular additional meetings throughout the year. We receive regular updates from our investment manager and investment advisor on climate-related developments at these meetings, with a more detailed update provided every six months.

We expect our advisors and investment managers to bring important climate-related issues and developments to our attention in a timely manner. We also expect our advisors and investment managers to have the appropriate knowledge on climate-related matters.

We receive training on an annual basis (or more frequently if required) on climate-related issues to ensure that we have the appropriate knowledge and understanding to support good decision-making.

We have delegated implementation and oversight of the MasterTrust's climate change risk management approach to our investment manager, Aon Investments Limited ("Aon Investments"), described further below.

Aon Investments keeps us updated on any material climate-related developments through regular updates (typically every six-months). This includes training sessions, updates on climate-related fund developments and the provision of information on the stewardship activity carried out on our behalf.

## Annual update

During the year, we agreed our stewardship priorities to ensure sufficient emphasis is placed on those areas we believe will have the most impact on the value of our members' retirement savings.

These priorities include climate change and nature loss and how the decisions and engagement activities of our underlying investment managers help mitigate climate-related risks.

We carried out a detailed site visit with our investment manager in October 2024 with a particular focus on stewardship.

We also received training on private markets and the broader positive impact these can provide. This included consideration of assets such as renewable infrastructure and natural capital which provide exposure to climate-related opportunities.

We reviewed the climate metrics for the default strategies, the ESG ratings for all underlying funds and the voting and engagement activity carried out by our investment manager.

## Role of Aon Investments

Day-to-day responsibility for the implementation of our climate risk management approach has been delegated to Aon Investments.

Aon Investments provide investment management services to the MasterTrust and has responsibility for the implementation of the default strategy and wider fund range offered to members.

Aon Investments choose the underlying asset classes, external asset managers and funds to deliver these investment options. Aon Investments also monitor and review the underlying asset classes and funds used within the investment options and make changes, as required, and their performance is reported quarterly to the Trustee. Their role is summarised as follows:

**Asset allocation**
The mix of different underlying asset classes used in our investment strategy

**Climate risk assessment**
Understand how climate change and extreme weather events may impact the MasterTrust's investments

**Stewardship**
How we look after the underlying assets and use our influence to create long-term value for members

Aon Investments is responsible for ensuring that any investment decisions appropriately consider climate-related risks and opportunities within the context of the MasterTrust's wider risk and return requirements and are consistent with our climate change policy, as set out in our SIP. Aon Investments is also responsible for ensuring that stewardship activities are undertaken appropriately on our behalf and provide regular reports to us on these activities.

Aon Investments also monitor and review progress against the MasterTrust's climate change risk management approach on a quarterly basis. The Chief Investment Officer for Aon's DC Solutions keeps us apprised of any material climate-related developments through regular (typically every six months) updates.

### Annual update

During the year, Aon Investments attended all our quarterly meetings to provide updates on performance and developments within the funds, including how they are managing climate-related risks. This included changes to increase the allocation to climate transition equities within our default strategies. We also held an on-site visit with Aon Investments in October, to delve into different aspects of the investment process in more detail. This on-site visit included an update on how Aon Investments engage with the underlying managers on environment, social and governance matters including climate change.

Aon Investments also attended our meetings to provide training on responsible investment and future developments. This included an update on future fund developments including changes to the fixed income portfolio and the introduction of private markets.

We have agreed with Aon Investments to introduce an actively managed corporate bond fund to one of the default strategies in early 2025, to replace the existing passive corporate bond fund. Through this new fund we will allocate more of our members' savings to companies who are better placed to manage climate related risks than their peers and companies contributing to solutions to tackle climate change, as well as wider environmental and social issues.

## Role of external advisors

**Investment advisor –** Our investment advisor, Aon, provides investment-related strategic advice and practical support to the Trustee in respect of the management of climate-related risks and opportunities. This includes regular training and updates on climate-related issues. Our investment advisor also works with Aon Investments to provide climate change scenario modelling.

**Founder –** The Founder of the MasterTrust, Aon, provides input into the governance and management framework in relation to both ESG considerations and climate-related risks and opportunities.

Given the importance of these issues, Aon has established a UK Responsible Investment Committee and separate UK Responsible Investment Policy.

## Responsible Investment initiatives

We have adopted the Impact Investing Principles for Pensions, which are established by Pensions For Purpose.

Aon, as the Founder and Investment Manager to the MasterTrust, is a signatory to the United Nations Principles for Responsible Investment and UK Stewardship Code.

Aon also supports various initiatives to encourage industry collaboration and continues to form and develop its approach to climate-related risks and opportunities. These include:

- Transition Pathway Initiative
- United for the Paris Agreement
- Institutional Investors Group on Climate Change
- All Parliamentary Group on Sustainable Finance
- UK Green Finance Task Force

Additionally, Aon plays a valuable role by contributing to public policy through engagement with key industry bodies, participation in cross-industry initiatives and responding to consultations.

### Annual update

During the year we reviewed the objectives we set for our advisors to incorporate specific objectives around climate-related risks and opportunities.

Our advisors have helped us meet our requirements under the new regulations on reporting climate-related risks. Our advisors also consider climate-related risks and opportunities as part of the ongoing advice that they provide.

We review the performance of our investment advisor and investment manager annually. As part of this review, we consider how they take account of climate-related risks and opportunities.

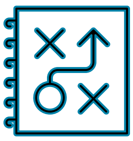
### Annual update

During the year, Aon Investments was reaffirmed as a signatory to the UK Stewardship Code and continued to support a wide range of initiatives across the industry to encourage collaboration and change. This included further research with the Cambridge Institute for Sustainable Leadership on biodiversity and the impact of nature loss and climate scenario analysis.

# Strategy

It is crucial to think strategically about the climate-related risks and opportunities that will impact the MasterTrust if we are to stand a chance of mitigating the effects of climate change.

Assessing the climate-related risks and opportunities the MasterTrust is exposed to is key to understanding the impact climate change could have on our members' retirement savings in the future.



# What climate-related risks are most likely to impact the MasterTrust?

Each year we carry out a qualitative risk assessment on the asset classes we invest in. From this we identify those climate-related risks and opportunities that could have a material impact on our members' retirement savings.

This year we reviewed our risk assessment and made some changes to allow for current market conditions. Overall, our risk assessment is mainly unchanged and reflects that our investment strategy is designed to be long-term and has not changed materially over the last 12 months. Our updated assessment is included below.

To help us with our assessment, we asked our investment manager, Aon Investments, to identify and assess the climate-related risks and opportunities they believe our investments are exposed to.

### Annual update

In 2023, we asked Aon Investments to assess the exposure to climate-related risks for the assets the MasterTrust is invested in. This year, we have updated this risk assessment to reflect the latest market conditions.

Our qualitative risk assessment is based on the updated information provided by Aon Investments.

## Climate-related risks

Climate-related risk is the risk that climate change impacts the financial performance of companies and consequently the risk-return profile of the securities they issue. Ultimately, climate-related risks could impact the value of our members' retirement savings.

Climate-related risks include both transition risks and physical risks:

**Transition risks** are the risks anticipated to arise with transitioning to a low-carbon economy. These might include shifts in government policy, the introduction of new technology or changes in supply and demand in certain sectors. As an example, the introduction of carbon pricing regulations by governments around the world could increase companies' production costs.

**Physical risks** are the risks associated with the physical impacts of climate change on companies' operations, resulting from, for example, extreme temperatures, flooding, droughts, storms or wildfires. Physical risks also include the chronic effects of climate change, such as rising temperatures and sea-levels, which are felt over many decades.

## How the risk assessment works

As part of our assessment of climate-related risks we identified five climate scenarios. Our climate-risk assessment is based on two of these climate scenarios, namely a No Transition scenario and an Orderly Transition scenario. We believe it is important to consider both possible paths, to better understand the climate-related risks faced by our members.

### Risk categories

In our assessment, we have considered and compared risks for all our climate scenarios. In this report, we focus on the 'No Transition' and 'Orderly Transition' scenarios to demonstrate the impact of physical and transition risks, described below:

**No Transition:** no further action is taken to reduce greenhouse gas emissions, leading to significant global warning. ***Physical risks dominate this scenario.***

**Orderly Transition:** immediate and coordinated global action to tackle climate change is taken using carbon taxes and environmental regulation. ***Transition risks dominate this scenario.***

### Ratings

The analysis uses a RAG rating system where:

**Red** denotes a much higher level of financial exposure compared with the base case. Denoted as 'R' in the table below.

**Amber** denotes a slightly higher level of financial exposure compared with the base case. Denoted as 'A' in the table below.

**Green** denotes a similar level of financial exposure compared with the base case. Denoted as 'G' in the table below.

### Time horizons

We assessed the climate-related risks and opportunities over multiple time horizons and these are set out below:

- short-term: 1-3 years.
- medium-term: 4-10 years
- long-term: 11-20 years
- Very long-term: 21+ years

When deciding the relevant time horizons, we considered the profile of our membership.

More details about transition and physical risks can be found in the Appendix 2.

# Climate-related risk assessment

## Key conclusions

The biggest risk faced by our members across the scenarios considered comes from the allocation to global equities. Global equities form a large part of our investment strategy, reflecting the need to generate above inflation returns for our members over the long-term and our relatively immature member base.

We have taken proactive steps to mitigate this risk over the year, including increasing the allocation to the Global Equity Climate Transition Fund within our default strategies. This helps us manage the risks associated with the transition to a low carbon economy in a just and fair way.

This builds on work we have done previously to manage climate-related risks for our members, including the introduction of an ESG overlay on our multi-factor equity portfolio, ESG screen on our passive regional equities and listed property portfolio used within our default strategies. This allows us to invest in companies which are actively contributing to solutions to tackle climate change in a variety of ways.

Additionally, in early 2025 our investment manager will be introducing an actively managed corporate bond fund to one of the default strategies, replacing the existing passive corporate bond fund. Through this new fund we will allocate more of our members’ savings to companies who are well placed to manage climate related risks and companies contributing to solutions to tackle climate change, as well as wider environmental and social issues.

Our allocation to the Aon Managed Global Impact Fund within the Aon Managed Retirement Pathway Funds also allows our members to benefit from climate-related opportunities.

Further detail is provided on pages 34 and 35.

## No Transition scenario

The table below sets out the results of our qualitative assessment under a No Transition scenario.

| Asset class | Sub-asset class | Short-Term (1-3 Years) | Medium-Term (4-10 Years) | Long-Term (11-20 Years) | Very Long-Term (21+ Years) |
|---|---|---|---|---|---|
| Equities | Developed Market Equities | G | A | R | R |
| | Emerging Market Equities | G | A | R | R |
| Bonds | Investment Grade Corporate Bonds | G | A | A | A |
| | Emerging Market / High Yield Bonds | G | A | R | R |
| | Asset Backed Securities | G | A | A | A |
| Real assets | Listed Property / Infrastructure | G | A | R | R |
| | UK Commercial Property | A | A | R | R |
| Government bonds / cash | Government Bonds – Developed Market | G | A | A | A |
| | Government Bonds – Emerging Market | G | A | R | R |
| | Cash | G | G | G | G |

Source: Aon. Data as at 31 December 2024

Under a No Transition scenario, no action is taken to tackle climate change and as a result the physical risks associated with climate change dominate. As the intensity of weather events increases, the risks to geographically vulnerable areas increase. In the worst cases, extreme weather events may cause damage that result in failure or a dramatic reduction in the lifespan of those assets relying on physical infrastructure. These climate-related headwinds facing the economy act as an increasing drag on economic growth and returns from risk assets such as equities and corporate bonds.

Government bond yields also rise, as inflationary pressures increase, and the risk premia demanded by investors for holding government bonds also increases over time. This reflects greater fiscal and monetary uncertainty and higher debt levels, due to increased government borrowing required to allow countries to adapt to climate change.

In this scenario, the biggest risks faced by our members are over the long-term and across nearly all asset classes, indicated by the amber and red ratings over the longer term time periods.

## Orderly Transition scenario

The table below sets out the results of our qualitative assessment under an Orderly Transition scenario.

| Asset class | Sub-asset class | Short-Term (1-3 Years) | Medium-Term (4-10 Years) | Long-Term (11-20 Years) | Very Long-Term (21+ Years) |
|---|---|---|---|---|---|
| Equities | Developed Market Equities | A | G | G | G |
| | Emerging Market Equities | R | G | G | G |
| Bonds | Investment Grade Corporate Bonds | A | A | A | A |
| | Emerging Market / High Yield Bonds | A | G | G | G |
| | Asset Backed Securities | A | G | G | G |
| Real assets | Listed Property / Infrastructure | A | G | G | G |
| | UK Commercial Property | R | G | G | G |
| Government bonds / cash | Government Bonds – Developed Market | G | A | A | A |
| | Government Bonds – Emerging Market | A | G | G | G |
| | Cash | A | A | A | A |

Source: Aon. Data as at 31 December 2024

Under an Orderly Transition scenario, there is immediate, coordinated action to tackle climate change through the introduction of carbon taxes and environmental regulation. As a result, the transition risks associated with tackling climate change dominate.

Increased public awareness of climate change risks galvanises opinion and leads to governments undertaking widespread action globally. Increased taxes, including carbon taxes and a carbon cap, together with a rise in production costs from the rapid shift away from fossil fuels, lead to an inflation spike in the near term and higher interest rates as central banks try to contain inflation.

Over the medium to longer term, green policies and the rapid transition to clean technologies including investment in renewable energy eventually begin to boost economic growth. Consequently, while risk assets such as equities and corporate bonds perform poorly in the near term, higher growth prospects boost returns over the longer term.

In this scenario, the biggest risks faced by our members relative to our base or central case scenario are experienced over the short-term and across nearly all asset classes. While all members are impacted, members closer to retirement or in retirement are most impacted. Longer term, our members would expect to see better outcomes compared with our base or central case scenario.

## Climate-related opportunities

The transition to a low-carbon economy will inevitably create winners and losers. While this is a risk, as described earlier, this also creates opportunities. Examples of climate-related opportunities we identified are outlined below and we provide further detail in Appendix 3:

**Cleaner energy**

Green power generation,
clean technology innovation,
transport,
sustainable biofuels

**Environmental resources**

Water,
agriculture,
waste management

**Energy and materials efficiency**

Advanced materials,
building efficiency,
power grid efficiency

**Environmental services**

Environmental protection,
business services

Source: Aon

Over the last five years, and working closely with Aon Investments, we identified several climate-related opportunities and made changes to our investment strategy to incorporate these.

Initially these changes focused on our equity portfolio, recognising the heightened climate-related risks associated with equity investment and long-term investment horizon of many of our members. This includes:

**Global Equity Climate Transition Fund**
Previously, we worked with Aon Investments to develop a climate transition equity strategy for a large portion of our equity portfolio. This strategy allows our members to take advantage of the higher expected growth associated with equities, while also allocating more of our members' savings to companies involved with renewable energy and green technology, as well as to those companies supporting a just and fair transition. Our investment manager increased the proportion of our equity portfolio invested in this fund over 2024 to enhance how we manage climate-related risks and gain exposure to climate-related opportunities within our default strategies.

**Emerging Market Equity Climate Transition Fund**
Working with Aon Investments, we also developed an emerging market equity climate transition strategy for a portion of our equity portfolio, which we introduced into one of our default strategies, the Aon Managed Retirement Pathway Funds, last year.

## Case study: Climate Transition Fund

Analysis shows that the scale of the investment required to decarbonise the global economy over the next 40 years is colossal! This ranges from existing technologies such as renewable energy, electric vehicles and green building materials, to others in development today such as hydrogen and carbon capture and storage solutions.

Our two Climate Transition Funds seek to invest more in companies that are well-placed to benefit from the transition to a more sustainable global economy.

The funds invest more in companies involved with “green opportunities". This includes involvement in renewable energy, energy efficiency, green building, pollution prevention and sustainable water. Investing in these two funds allow our members to benefit from these climate-related opportunities.

**Aon Managed Global Impact Fund**

Previously, we identified an opportunity to invest in companies which are actively contributing to solutions to tackle climate change in a variety of ways (and wider social issues too). As a result, we introduced an allocation to the Aon Managed Global Impact Fund in one of our default strategies, the Aon Managed Retirement Pathway Funds. We also added this fund to the wider fund range.

## Case study: Global Impact Fund

The Aon Managed Global Impact Fund aims to make a positive impact on people and the planet by investing in companies that are tackling real-world challenges, including climate change.

Examples include companies involved with renewable energy, energy efficiency, pollution prevention and sustainable water. As an example, the fund invests in Waste Management Inc, a company involved in providing environmental solutions to residential, commercial, industrial and municipal customers globally. It also operates landfill gas-to-energy facilities that produce renewable electricity and renewable natural gas.

As a further example, Enphase Energy delivers smart, easy to use solutions that manage solar generation, storage and communication on a single platform. Since the company launched in 2006, it’s microinverters have helped generate 64 billion kilowatt-hours and saved 45 million metric tons of carbon dioxide equivalent from entering the atmosphere.

**What’s next?**

Our investment manager recently launched the Aon Managed Global Equity Climate Transition Fund and Aon Managed Emerging Market Equity Climate Transition Fund and we will be adding these to the wider fund range in 2025. These two funds will allow members to invest in a way that manages the risks around the transition to a low carbon economy in a just and fair way. We are also working with Aon Investments to evaluate opportunities to invest in biodiversity.

We have begun to extend our approach to our investments in other assets including corporate bonds and are actively considering opportunities in these areas. We have agreed with our investment manager to introduce an actively managed corporate bond fund to the Aon Managed Core Retirement Pathway Funds in early 2025, replacing the existing passive corporate bond fund.

Through this new fund we will allocate more of our members' savings to companies who are well placed to manage climate related risks and companies contributing to solutions to tackle climate change, as well as wider environmental and social issues.

Our investment manager will also be making further changes to our corporate bond portfolio next year to manage climate-related risks. This includes the use of active fixed income funds with an impact or sustainability focus for inclusion within the Aon Managed Retirement Pathway Funds and several of the wider fund options; this will allow our members to invest in climate-related opportunities within the bond market.

Looking ahead, we believe there are opportunities to invest in private markets (these are assets which are not readily tradeable like equities or bonds), for example, to access renewable infrastructure and real estate. Working closely with Aon Investments, we will introduce an allocation to private markets within both the Aon Managed Core Retirement Pathway Funds and Aon Managed Retirement Pathway Funds within the next 12-18 months.

Our progress on our ESG focused investments is discussed further on pages 34 and 35.

We will continue to explore further opportunities through the investment strategy, where we believe these are appropriately aligned with our strategic objectives and fiduciary duty.

# How resilient is the MasterTrust to climate change?

In 2024, we carried out climate change scenario analysis to better understand the impact climate change could have on the MasterTrust's assets and our members' retirement savings.

Our analysis looks at five climate change scenarios. Each scenario considers what might happen when transitioning to a low carbon economy under different conditions.

We have chosen these scenarios because we believe they provide a reasonable range of possible climate change outcomes. These scenarios were developed by Aon and are based on detailed assumptions. It is important to remember they are only illustrative and are subject to considerable uncertainty.

We also established a "base case" scenario against which the five climate change scenarios are compared.

**Purpose**

The climate scenarios intend to illustrate the climate-related risks the MasterTrust and are our members' retirement savings are currently exposed to.

The analysis also highlights areas where we can manage climate-related risks for our members through changes to the investment strategy.

**Important notes**

The investment risk our members are exposed to is captured in the difference in potential outcome from our base case scenario.

It is important to remember that this is not the only risk that our members face. Other risks include:

- market risk,
- inflation risk,
- longevity risk,
- liquidity risk, and
- operational risks.

## Annual update

Under the regulations, climate scenario analysis must be carried out at least every three, with a lighter-touch annual review, or sooner if there have been significant changes which could impact the MasterTrust.

We have rerun the scenario analysis as at 31 December 2024 due to it being 3 years since the initial modelling was undertaken.

The MasterTrust has grown over the intervening period. As such the Trustees reviewed the representative members used for the modelling, with their advisors and are comfortable that those selected are appropriate for the purposes of this analysis.

There is no change to the modelling techniques used for the scenario analysis and nor have we seen a significant advances in public policy implementation to tackle climate change.

Below we provide a summary of our five climate change scenarios and our 'base case' scenario.

| Scenario | Reach net zero by | Degree warming vs pre-industrial levels by 2100 | Introduction of environmental regulation | Scenario description |
|---|---|---|---|---|
| Base Case | 2050 | 2°C to 2.5°C | - | Emission reductions start now and continue in a measured way in line with the objectives of the Paris Agreement and the UK government's legally binding commitment to reduce emissions in the UK to net zero by 2050. |
| No Transition | After 2050, if at all | +4°C | None | No further action is taken to reduce greenhouse gas ("GHG") emissions leading to significant global warming. |
| Disorderly Transition | After 2050 | <3°C | Late and Aggressive | Limited action is taken and insufficient consideration is given to sustainable long-term policies to manage global warming effectively. |
| Abrupt Transition | 2050 | <1.5 °C -2°C | Aggressive | Action on climate change is delayed for five years at which point we experience more frequent extreme weather events and governments must address GHG emissions. |
| Orderly Transition | 2050 | <1.3 °C- 2°C | Coordinated | Immediate and coordinated action to tackle climate change is taken using carbon taxes and environmental regulation. |
| Disinflationary Transition | 2045 | <1.5°C | High Coordination | Rapid advancement of green technology and government action on climate change which achieves a smooth transition to a low carbon economy. |

Source: Aon.

## Impact on members' savings

Climate-related risks and opportunities are likely to play out over a long-time horizon and, consequently, the impact on our members' retirement savings will depend on factors including age. Reflecting this, previously we identified six example members, which align with the different time periods over which we consider climate-related risks and opportunities. We summarise these example members below:

| Member | Age | Current fund value | Salary | Contributions/withdrawals (employer and employee) |
|---|---|---|---|---|
| **Member A** | 25 | £5,000 | £30,000 | 10% p.a. |
| **Member B** | 35 | £25,000 | £45,000 | 10% p.a. |
| **Member C** | 45 | £45,000 | £55,000 | 10% p.a. |
| **Member D** | 55 | £65,000 | £60,000 | 10% p.a. |
| **Member E** | 65 | £85,000 | N/A | 3% p.a. withdrawal |
| **Member F** | 45 | £30,000 | N/A | N/A |

Having reviewed our example members, we believe these remain appropriate to allow us to assess the impact of different climate change scenarios on our members' retirement savings.

## Impact Assessment: Aon Managed Core Retirement Pathway Funds

We carried out analysis on our six example members invested in both default strategies to consider the projected real fund value over the next 30 years for each of our five climate change scenarios, together with our base case scenario.

In this report we summarise our analysis for two example members, namely a 35-year old and a 65-year old, invested in the Aon Managed Core Retirement Pathway Funds. We have chosen these members to demonstrate the impact that climate-related risks may have on members on the journey to retirement, and in retirement, over the chosen time horizons.

Analysis for our remaining four example members vested in the Aon Managed Core Retirement Pathway Funds and members invested in the Aon Managed Retirement Pathway Funds is included in Appendix 5. We have not produced analysis for the client bespoke strategy, given the broad similarities with our default strategies.

## Key conclusions

**Overall, we are comfortable that the default investment strategy exhibits reasonable resilience under most of the climate change scenarios, particularly in the short to medium-term. This is due to the inclusion of climate transition strategies and an ESG overlay on the equity portfolio and inclusion of more defensive asset classes as members approach retirement.**

In all the scenarios modelled, the default investment strategy's equity exposure proved to be the most volatile asset class, seeing particularly large drawdowns in the Disorderly Transition scenario (red line); this has been an area of key focus for us over the last few years.

In the short-term, the biggest risk for our members is the Orderly Transition scenario (blue line). The impact is mitigated by the ESG overlay in place and inclusion of more defensive asset classes for members closer to retirement. While this scenario represents a risk in the short-term, our members have time to recover from the impact of the transition, especially for younger members as they are not able to access their retirement savings for many years.

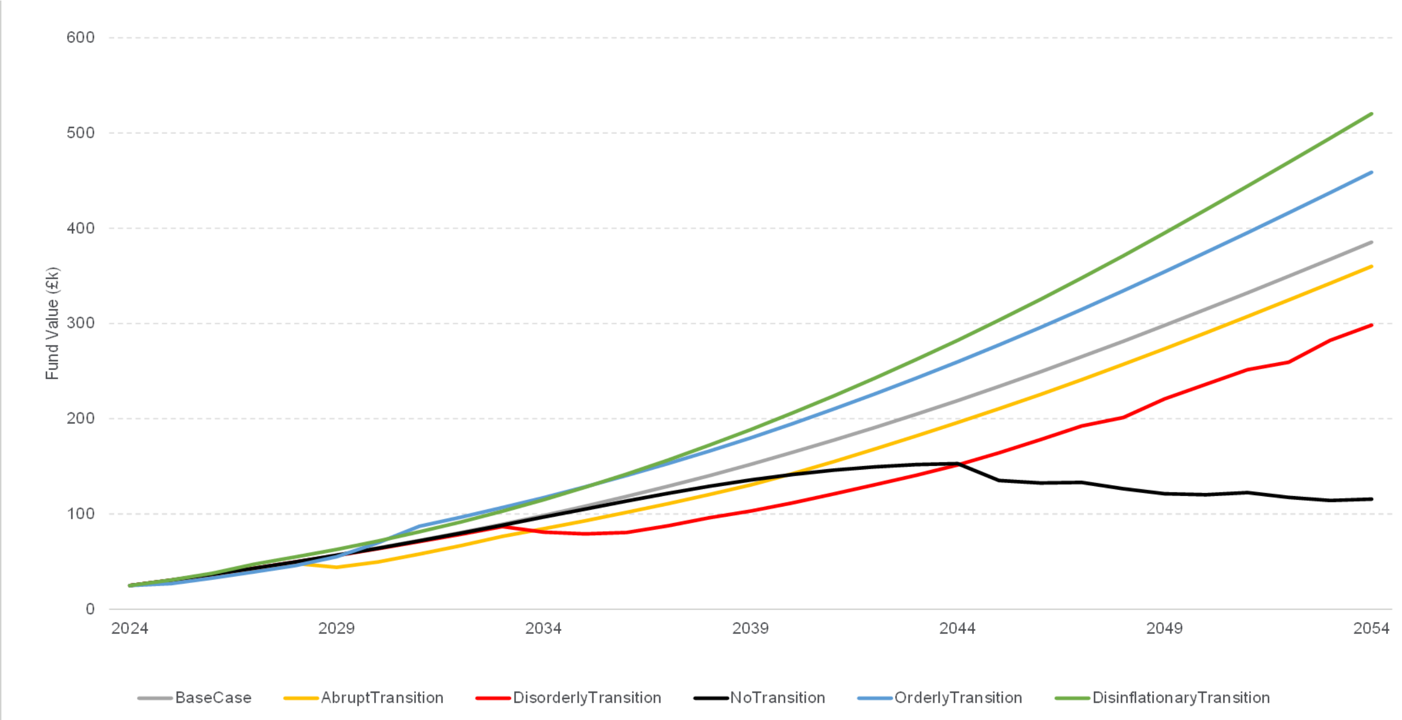
In the longer-term, for most of our members, and particularly members in the early to mid-part of their career, the biggest risks are the Disorderly Transition scenario (red line) and No Transition scenario (black line). The exception is for members approaching retirement, where the biggest risk in the medium-term is the Abrupt Transition scenario (yellow line). Here a large shock to asset returns takes place in the short to medium-term, resulting in poor returns over the medium term.

The charts overleaf illustrate the projected real fund value over the next 30 years for each of our five climate change scenarios, together with our base case scenario (grey line).

The projections allow for investment growth and assume our representative members continues to pay contributions to their pension. The projections are shown in real terms i.e. in today's money. Appendix 4 provides further information on the assumptions and limitations of these projections.

## 35-year old active member invested in the Aon Managed Core Retirement Pathway Funds

**Projected real fund value**




Source: Aon. Fund values are shown in real terms projected from 31 December 2024. Note these projections assume no withdrawals from the asset pool over the modelling period and contributions into the fund are assumed to be paid half-way through the year.

In the short-term, the biggest risk for our younger members is the Orderly Transition scenario (blue line), although all the scenarios provide similar outcomes over this period. Poor asset returns, particularly from equities, in the next few years cause the value of members' pension savings to fall. The overall decline is mitigated by the ESG overlay in place, leaving our youngest representative member better positioned to benefit from the material recovery in later years.

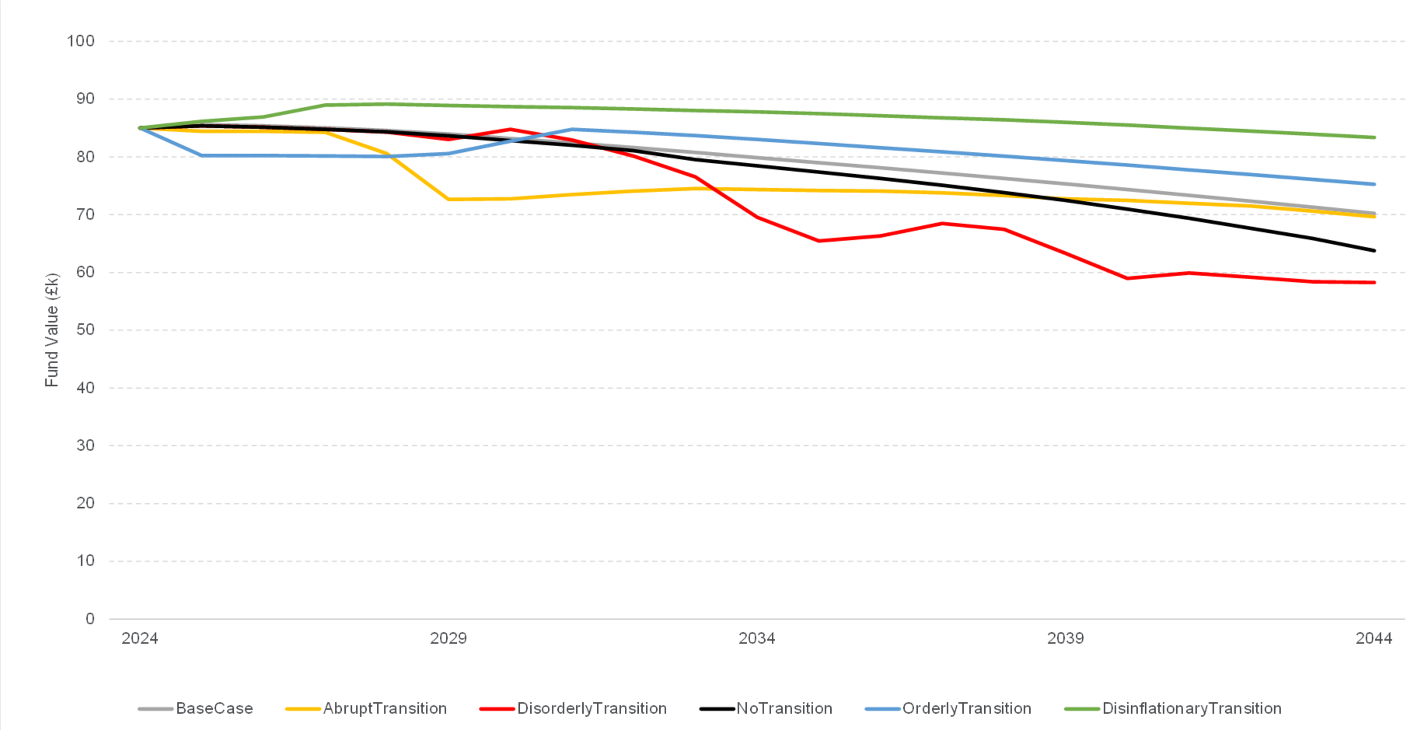
In the longer-term, the biggest risk is the No Transition scenario (black line). While initially members' pension savings rise in value, a large shock to asset returns takes place after 20 years. This results in lower returns over the longer-term and a lower value of members' pension savings compared with our Base Case scenario (grey line) and other scenarios.

The Disorderly Transition also results in relatively poor outcomes over the medium term, reflecting a large shock to asset values after 10 years.

Another key risk is the potential range of projected fund values. Under the No Transition, Disorderly Transition and Abrupt Transition scenarios, our younger members might expect lower projected fund values compared with our Base Case scenario. Lower projected fund values mean members are likely to have less money to spend in retirement. In turn, this may result in our members needing to pay additional contributions, retire later or accept a lower level of income in retirement.

## 65-year old member accessing drawdown and invested in the Aon Managed Core Retirement Pathway Funds

**Projected real fund value**




Source: Aon. Fund values are shown in real terms projected from 31 December 2024. Note these projections assume withdrawals of £3,000 p.a. (3% of the assumed starting fund value) from the asset pool over the modelling period. These are assumed to be paid half-way through the year. No contributions are made into the fund after retirement.

In the short-term, the biggest risk for our at-retirement member is the Orderly Transition scenario (blue line). Poor asset returns, particularly from equities, in the next few years cause the value of members' pension savings to fall. The overall decline is mitigated by the ESG overlay in place and reduced exposure to equities over time, leaving our at-retirement member better positioned to benefit from the material recovery in later years.

In the longer term, the biggest risk is the Disorderly Transition scenario (red line). While initially asset returns are positive, a large shock to asset returns takes place after 10 years. This results in lower returns over the longer term and a lower value of members' pension savings compared with our Base Case scenario (grey line).

Another key risk is the potential range of projected fund values. Under the No Transition, Disorderly Transition and Abrupt Transition scenarios, our at-retirement member might expect lower projected fund values in retirement compared with our Base Case scenario. Lower projected fund values mean members are likely to have less money to spend in retirement. In turn, this may result in our members needing to accept a lower level of income in retirement. The impact may be exacerbated if members do not adjust the amount they withdraw, so that a proportionately higher amount of the fund is withdrawn each year, further reducing fund values.

## Modelling limitations

The scenario modelling relies on assumptions about expected asset class and likely member behaviour. Appendix 4 provides further information on the assumptions used for these projections.

The scenario modelling focuses on the impact of climate change on the MasterTrust's assets. It does not consider the impact climate change could have on mortality risk and subsequent cost of securing benefits in retirement for individual members.

The scenario modelling reflects recent market conditions and current market views. The model may produce different results for the same strategy under different market conditions.

# Risk management

We must have processes to identify, assess and manage the climate-related risks that are relevant to the MasterTrust and these must be integrated into our overall risk management.

Reporting on our risk management processes provides context for how we think about and address the most significant risks to the MasterTrust to achieve appropriate outcomes for our members.

# Our process for identifying and assessing climate-related risks

We have established a process to identify, assess and manage the climate-related risks that are relevant to the MasterTrust and our members. This is part of our wider risk management framework and is how we monitor the most significant risks to the MasterTrust in our efforts to achieve appropriate outcomes for our members.

There are three pillars to our approach including ongoing training, climate risk assessment and scenario analysis, described below.

### Training

We complete regular training on responsible investment to identify climate-related risks and opportunities and understand how these, including wider ESG factors, could impact the investments of the MasterTrust.

### Climate risk assessment

We carry out a qualitative assessment of the climate-related risks and opportunities through an annual climate risk assessment. This is prepared by our investment advisor and Aon Investments.

### Scenario analysis

We also carry out quantitative analysis and this is delivered by means of climate change scenario analysis. This is prepared by our investment advisor and Aon Investments.

Together these give us a clearer picture of the climate-related risks that the MasterTrust is exposed to. Where appropriate, we consider both transition risks and physical risks. All risks and opportunities are assessed with reference to the time horizons that we have identified as relevant to members within the MasterTrust.

When prioritising the management of risks, we assess the materiality of climate-related risks relative to the impact and likelihood of other risks to the MasterTrust. This helps us focus on the risks that pose the most significant impact and work towards achieving our net zero target.

### Annual update

We have reviewed our process to identify and assess climate-related risks as part of producing this report and we believe it remains suitable.

During the year, we received training on responsible investment and regular updates on developments to the funds from our investment manager, Aon Investments.

# Our process for managing climate-related risks

We recognise the long-term risks posed by climate change and have taken steps to integrate climate-related risks into our risk management framework.

We have taken the following steps to integrate climate-related risks into our risk management framework and processes. Our risk management framework clearly sets out on who is involved, what is done and how often.

Risk identification and prioritisation

Investment strategy

ESG focused investments

Monitoring

Stewardship

Integrated into risk framework

We provide further detail on each, in turn, below.

## Risk identification and prioritisation

The first stage is to identify the climate-related risks and opportunities the MasterTrust and our members are exposed to. We do the following, with support from our investment advisor and investment manager:

| Activity | Frequency of review |
|---|---|
| Identify and assess the climate-related risks within the MasterTrust | Annual, including regular training sessions |
| Identify and assess climate-related opportunities for inclusion within the MasterTrust | Annual; this is a particular focus at our six-monthly training days |
| Carry out climate change scenario analysis. | Every three years, with an annual review |

Once we have identified the climate-related risks and opportunities the MasterTrust is exposed to, the next step is to prioritise these.

We consider each in terms of the potential impact and likelihood on our members' investments. We also consider the relative importance of each. This led us to focus initially on the equity portfolio, reflecting the heightened climate-related risks associated with equity investment and long-term investment horizon of many of our members.

As a result, working closely with Aon Investments, we made changes to our investment strategy, mainly within our equity portfolio, described below.

### Annual update

During the year, we received training on responsible investment at two of our meetings. This included training on stewardship, future changes to the fixed income allocation within our default strategies to incorporate funds with climate-related objectives and on private markets.

We updated our climate-related risk assessment and made some changes to allow for the latest market conditions. We have also updated our climate scenario analysis to allow for changes in our membership and updated climate scenarios, as well as recent changes to our investment strategy. By doing this, we have a better understanding of the climate-related risks that may impact our members' retirement savings.

## Investment strategy

As a first step, Aon Investments has been working with the underlying investment managers to develop new strategies that better manage ESG risks and in particular climate-related risks. This included the introduction of an ESG overlay and ESG screen on some of our equity portfolio and the launch of two climate transition equity funds, described further below.

We have also asked our investment advisor to ensure that all investment proposals and investment advice considers the impact of climate-related risks and opportunities. We have also reflected this in the objectives we set for our investment advisor.

While our initial focus has been on our equity portfolio, looking ahead we will be extending our approach to our investments in other assets including corporate bonds. We have agreed with our investment manager to introduce an actively managed corporate bond fund within the Aon Managed Core Retirement Pathway Funds in early 2025. Our investment manager will also be making further changes to our fixed income portfolio within the Aon Managed Retirement Pathway Funds.

Additionally, our investment manager launched the Aon Managed Global Equity Climate Transition Fund and Aon Managed Emerging Market Equity Climate Transition Fund and we will be adding these to the wider fund range during 2025. These two funds will allow members to invest in a way that manages the risks around the transition to a low carbon economy in a just and fair way.

Looking ahead and working closely with our investment manager, we will introduce an allocation to private markets within both the Aon Managed Core Retirement Pathway Funds and the Aon Managed Retirement Pathway Fund within the next 12-18 months. We believe access to private markets offers the potential for higher expected returns and enhanced outcomes for members, as well the opportunity to create real world impact

### Annual update

During the year, Aon Investments carried out research on private markets to identify the most suitable asset classes and funds to include within the investment strategy, including meetings with several managers. As part of this research, Aon Investments is also considering the operational aspects such as how assets can be bought and sold and the impact on costs. We have received training on private markets and are working closely with our investment manager on including these assets within our default strategies over the next 12-18 months.

## ESG focused investments

Having established the investment strategy, our investment manager has been working to introduce underlying funds with specific climate-related and ESG objectives. These are described below:

**Climate Transition equities:** we include an allocation to climate transition equities in the growth phase of the Aon Managed Core Retirement Pathway Funds and Aon Managed Retirement Pathway Funds. Our investment manager increased these allocations over 2024. We will also add two Climate Transition Global Equity Funds to the wider fund range in 2025.

Through this strategy we allocate more of our members' savings to companies involved with renewable energy and green technology, as well as to companies contributing to a 'just and fair' transition. We also avoid investing in companies involved with tobacco, controversial weapons, thermal coal and those who violate the UN Global Compact Principles. Using this strategy will help us reduce the carbon footprint of our default strategies and our members' retirement savings both now and in the future.

**Emerging Market Equity Climate Transition Fund:** our investment manager has also developed an Emerging Market equity strategy with UBS Asset Management for a further portion of our equity portfolio. We introduced this into the Aon Managed Retirement Pathway Funds and several of the wider fund options last year. Using this strategy helps us to manage climate-related risks for our members, recognising that investing in Emerging Market equities is often more carbon intensive than in developed markets.

**Active Impact equities**: We offer the Aon Managed Global Impact Fund in our wider fund range. We also include a 10% allocation within the growth phase of the Aon Managed Retirement Pathway Funds.

The Aon Managed Global Impact Fund invests in companies who are actively contributing to solutions to tackle climate change in a variety of ways, as well as wider environmental and social issues too. This fund allows our members to invest in these growth opportunities and see their retirement savings make a positive impact on our planet.

**Multi-factor equities**: An allocation to multi-factor equities, implemented using an Aon designed index, is included within our default strategies and several of the wider fund range.

The multi-factor equity fund used within our equity portfolio incorporates an ESG overlay with a focus on managing climate-related risks. Specifically, the fund invests more in companies with lower carbon emissions and less in companies with higher carbon emissions. The fund also incorporates some further ESG screens and excludes investment in some of the worst-polluting areas such as thermal coal, tar sands oil extraction and fracking. Using this strategy has enabled us to reduce the carbon footprint of our default strategies.

**Regional equities**: An ESG screen applies to the UK, US, European and Japanese equity exposure used within the Aon Managed Core Retirement Pathway Funds. These regional equity funds are also used within several of the wider fund options.

The ESG screen aims to reduce controversy risk within these funds and removes exposure to companies involved with thermal coal and oil sands, weapons, including controversial weapons, and companies that violate the UN Global Compact Principles. By removing some of the most carbon intensive companies in the index, this ESG screen has helped us to reduce the carbon footprint of the Aon Managed Core Retirement Pathway Funds.

**Listed property**: An ESG screen applies to listed property fund used within the Aon Managed Retirement Pathway Funds. This listed property fund is also used within two of the wider fund options.

The ESG screen aims to help manage sustainability risks, including climate-related risks, within the fund. It invests more in companies / assets that have achieved green building certification, reduced energy consumption or low carbon emissions. The screen also removes exposure to non-renewable energy, tobacco, weapons and controversies.

## Annual update

During the year, Aon Investments made further changes to our investment strategy to increase the allocation to climate transition equities within both default strategies. This change helps manage climate-related risks for our members and provides exposure to climate-related opportunities.

At the end of 2024, 98.4% of the equity portfolio in the Aon Managed Core Retirement Pathway Funds and 100% of the equity portfolio in the Aon Managed Retirement Pathway Funds are invested either in climate transition equity funds, funds with an ESG overlay or ESG screen or an active impact strategy.

We have agreed with our investment manager to introduce an actively managed corporate bond fund within the Aon Managed Core Retirement Pathway Funds in early 2025. This new fund will allocate more of our members' savings to companies who are well placed to manage climate related risks and companies contributing to solutions to tackle climate change, as well as wider environmental and social issues. The fund also removes exposure to some of the worst polluting areas such as thermal coal and oil sands.

Our investment manager will also be making further changes to the fixed income portfolio within the Aon Managed Retirement Pathway Funds, including actively managed impact and sustainable bond strategies.

As noted earlier, we are working with our investment manager to introduce an allocation to private markets. Investing in private markets not only provides the potential for higher expected returns for members but the opportunity to create real world impact both from an environmental and social perspective. As an example, we are currently considering investments in renewable infrastructure, for example solar and wind farms, agriculture and real estate.

## Monitoring

Aon Investments require all the underlying investment managers to achieve at least an 'Integrated' ESG rating from Aon's manager research team before they will invest. Any investment manager who fails to achieve an Integrated ESG rating can't be used within our strategy.

As part of our ongoing monitoring of the investments, we use ESG ratings provided by Aon Investments to monitor the level of ESG integration within the underlying investment managers.

On an annual basis, we request Aon Investments to provide details of their responsible investment policy, how ESG is integrated within their decision-making process and details of any outstanding ESG issues. This allows us to understand how Aon Investments take account of climate-related risks and opportunities within our strategy.

We request Aon Investments provide climate metrics, including progress against our net zero target, for our strategy on an annual basis. These are included in this report. We also review these metrics and our net zero target annually.

### Annual update

During the year, we monitored the ESG ratings provided by Aon Investments to monitor the level of ESG integration within our strategy. As at 31 December 2024, all the underlying investment managers had achieved either an Integrated or Advanced ESG rating.

We received carbon metrics from Aon Investments on our strategy, including progress against our net zero target. This showed that we have achieved a material reduction in the carbon footprint for both the Aon Managed Core Retirement Pathway Funds and Aon Managed Retirement Pathway Funds since 2019.

We reviewed the carbon metrics we are using and remain comfortable with the current metrics. We also reviewed the evolution of best practice methodology and latest available data in our carbon metrics.

## Stewardship

We believe that effective stewardship of the MasterTrust's assets is an important aspect of managing climate-related risks. In particular, the exercise of voting rights and engagement with the investee companies has the potential to mitigate and minimise climate-related risks.

As an example, ongoing engagement might focus on how a company plans to reduce its greenhouse gas emissions. Our investment managers can also apply pressure to companies to disclosure greenhouse gas emissions data and provide appropriate reporting.

We have delegated voting and engagement activities to Aon Investments, who in turn delegates these to the underlying investment managers. The underlying asset managers are expected to exercise the Trustee's voting rights in relation to their assets and engage with the underlying companies.

At least annually we review the stewardship activity of Aon Investments to ensure our expectations are being met. Aon Investments provide us with a summary of the voting and engagement activity on at least an annual basis, with any concerns flagged in between.

Our investment manager is involved with industry initiatives to help tackle climate change and publicly advocates for a reduction in carbon emissions, including having set its own net zero target, which aligns with that of the MasterTrust.

As an example, Aon Investments is a founding member of the Investment Consultants Sustainability Working Group, which brings together leading UK investment consulting firms with the aim of seeking to improve sustainable investment practices across the investment industry, including tackling climate change. Aon Investments is also a member of the Cambridge Institute for Sustainable Leadership – Investment Leaders Group. This Group aims to improve responsible investment practices across the investment industry with the goal of helping to decarbonise the economy, protect and restore nature and support inclusive and resilient societies.

We continue to engage with Aon Investments to understand future changes to the management of the MasterTrust's assets, including the integration of climate-related risk analysis by the underlying investment managers, improvements in reporting on greenhouse gas emissions and temperature alignment, as well as the associated timescales involved with these.

## Annual update

During the year, we reviewed the stewardship activity of Aon Investments to ensure our expectations are being met. Overall, we are comfortable with the stewardship activity carried out on our behalf. Our investment manager retained their status as a signatory to the UK Stewardship Code. All the underlying investment managers voted on all proposals, or a high proportion of proposals (in excess of 95%) over 2024. While we see a relatively low proportion of votes against management and note this is broadly unchanged over the last year, all the underlying investment managers have provided examples.

Going forward, we are working with Aon Investments to assess how we might implement a specific voting policy that would allow us to express our views on key topics, for example, on climate change or biodiversity loss. This is an area we considered at our regular meetings.

We focused on stewardship at an on-site visit with Aon Investments in 2024. Following this visit, we agreed our stewardship priorities and subsequently updated our Statement of Investment Principles. Our stewardship priorities are climate change, biodiversity loss, modern slavery and artificial intelligence; these are key engagement priorities for our investment manager.

## Risk management framework

We maintain a risk management framework, that seeks to capture the risks the MasterTrust is exposed to. We carry out a detailed annual review of our Climate Risk Management Framework. Climate-related risks are also included in our wider risk management framework, which we reassess on a quarterly basis.

We also include consideration of climate-related risks in our Statement of Investment Principles.

Our risk management framework is included in Appendix 6. It is reviewed quarterly by the Scheme Secretary and the Trustee.

### Annual update

During the year, we reviewed our Climate Risk Management framework and believe it remains appropriate and captures the risks the MasterTrust is exposed to.

We also agreed areas of focus for the next twelve months, including topics for further training and discussion. This includes training on biodiversity and nature loss, investing in private markets and a focus on stewardship at our next on-site visit with Aon Investments in 2025.

# Metrics & Targets

Metrics help to inform our understanding and monitoring of the MasterTrust's climate-related risks. Quantitative measures of the MasterTrust's climate-related risks, in the form of both greenhouse gas emissions and non-emissions-based metrics, help us to identify, manage and track the MasterTrust's exposure to the financial risks and opportunities climate change will bring.

# Our climate-related metrics

We use several quantitative measures to help us understand and monitor the MasterTrust's exposure to climate-related risks. Measuring the greenhouse gas emissions related to our assets is an essential way for us to assess our exposure and our members' exposure to climate change.

Greenhouse gases are produced by burning fossil fuels, meat and dairy farming, and some industrial processes. When greenhouse gases are released into the atmosphere, they trap heat in the atmosphere causing global warming, contributing to climate change.

## Measuring greenhouse gas emissions

Greenhouse gases are categorised into three types or 'scopes' by the Greenhouse Gas Protocol, the world's most widely used greenhouse gas accounting standard.

### Scope 1

All direct emissions from the activities of an organisation which are under their control; these typically include emissions from their own buildings, facilities and vehicles.

### Scope 2

These are the indirect emissions from the generation of electricity purchased and used by an organisation.

### Scope 3

All other indirect emissions linked to the wider supply chain and activities of the organisation from outside its own operations – from the goods it purchases to the disposal of the products it sells.

Scope 3 emissions are often the largest proportion of an organisation's emissions, but they are also the hardest to measure. The complexity and global nature of an organisation's value chain make it hard to collect accurate data.

Further information on greenhouse gas emissions is included in Appendix 7.

## Our climate-related metrics

In our previous TCFD reports, we decided what metrics to report on and these are described below. This year we reviewed the metrics and believe they continue to be suitable for us to report against.

This year we have added the Implied Temperature Rise ("ITR") as an additional portfolio alignment metric. Going forward we intend to report on this metric as we believe it provides more insight and aligns more closely with our net-zero target.

| | | |
|---|---|---|
|  | Total Greenhouse Gas emissions | The total greenhouse gas (GHG) emissions associated with the portfolio. It is an absolute measure of carbon output from the MasterTrust's investments and is measured in tonnes of carbon dioxide equivalent (tCO2e). |
|  | Carbon footprint | Carbon footprint is an intensity measure of emissions that takes the total GHG emissions and weights it to take account of the size of the investment made. It is measured in tonnes of carbon dioxide equivalent per million pounds invested (tCO2e/£m). |
|  | Data quality | A measure of the proportion of each default strategy that we have high quality data for i.e., data which is based on verified, reported, or reasonably estimated emissions, versus that which is unavailable.<br><br>We have chosen this metric as it provides a consistent and comparable measure of the level of confidence in the data. |
|  | Portion of portfolio SBTi aligned | This shows what proportions of our default strategies are aligned with a climate change goal of limiting the increase in the global average temperature to 1.5˚C above pre-industrial levels.<br><br>It is measured as the percentage of underlying investments with a declared net-zero or Paris-aligned target that have been verified by the Science-based Target initiative. |
|  | Implied temperature rise | An estimate of the potential global temperature rise over the rest of the century based on the pledges, commitments and business strategy changes of the underlying companies and issuers. It is expressed as a temperature rise in degrees Celsius associated with the greenhouse gas emissions from our default strategies.<br><br>This shows how our assets align with a climate change goal of limiting the increase in the global average temperature to 1.5˚C above pre-industrial levels. |

Our investment manager, Aon Investments, collected information from the underlying investment managers on their portfolio holdings to calculate climate-related metrics for the two default strategies we offer to members, namely the Aon Managed Core Retirement Pathway Funds and Aon Managed Retirement Pathway Funds. They also collected information for a client bespoke strategy in line with regulatory reporting requirements.

**The carbon metrics**

The metrics are calculated using the latest best practice methodology for calculating carbon metrics and the most up to date data available.

The reported greenhouse gas emissions metrics for our two default strategies and the client bespoke default strategy do not include all emissions. This is because not all companies currently report their greenhouse gas emissions. Additionally, scope 3 emissions are not widely reported by companies and hence limited data is available. As a result, the metrics show the greenhouse gas emissions for our two default strategies and the client bespoke default strategy to be lower than they really are.

We expect that in the future better information, including more scope 3 data, will be available from underlying companies, investment managers and data providers and this improvement will be reflected in the coming years' reporting. We will continue to work with our investment manager, Aon Investments, to push for improvements in this area.

The tables below show the climate-related metrics for each of the two default strategies offered within the MasterTrust and the client bespoke default strategy. The metrics are shown separately for each asset class because the methodology used for each is different, so combining them would not make sense.

We also show scope 1 & 2, and scope 3 emissions data separately.

We provide metrics for the year ending 31 December 2024 (current year), year ending 31 December 2023 (prior year), and year ending 31 December 2019 (our base line). For the Client Bespoke Strategy metrics are shown for 31 December 2024 only.

These are the metrics:

## Aon Managed Core Retirement Pathway Funds

The table below excludes those assets, such as derivatives and gold, where there is no agreed or approved methodology. Derivative positions may be either positive or negative (i.e. long or short positions).

| **Asset class** | **Assets as at 31/12/24 (£ million)** | **Assets for which emission data is available as at 31/12/24 (£ million)** | | **Total GHG emissions** (tonnes $CO_2e$) | | **Carbon footprint** (tonnes $CO_2e$ / £million) | |
|---|---|---|---|---|---|---|---|
| | | Scopes 1 & 2 | Scope 3 | Scopes 1 & 2 | Scope 3 | Scopes 1 & 2 | Scope 3 |
| Equities | 3,757 | 100% | 100% | 98,035 | 1,490,729 | 26.2 | 398.0 |
| | *2,177 (2023)* | *100%* | *100%* | *75,737* | *1,406,802* | *34.9* | *648.0* |
| | *157 (2019)* | *99%* | *82%* | *12,585* | *72,081* | *81.4* | *563.5* |
| Corporate bonds | 368 | 92% | 92% | 9,752 | 71,466 | 28.9 | 211.9 |
| | 340 (2023) | 50% | 50% | 7,369 | 65,839 | 42.9 | 383.7 |
| | 25 (2019) | *53%* | *49%* | *1,093* | *7,575* | *81.2* | *602.4* |
| Sovereign bonds | 343 | 100% | - | 47,931 | - | 140.0 | - |
| | 77 (2023) | 99% | - | 13,171 | - | 173.2 | - |
| | 12 (2019) | *98%* | - | *2,456* | - | *203.8* | - |
| Cash | 49 | 37% | 37% | 17.0 | 2,030 | 0.96 | 112.4 |
| | 24 (2023) | 71% | 71% | 13.6 | 724 | 0.8 | 42.0 |
| | 6 (2019) | *73%* | *76%* | *0* | *50.4* | *0.0* | *10.7* |

**Aon Managed Retirement Pathway Funds**

The table below excludes those assets, such as derivatives and gold, where there is no agreed or approved methodology. Derivative positions may be either positive or negative (i.e. long or short positions).

| Asset class | Assets as at 31/12/24 (£ million) | Assets for which emission data is available as at 31/12/24 (£ million) | | Total GHG emissions (tonnes $CO_2e$) | | Carbon footprint (tonnes $CO_2e$ / £million) | |
|---|---|---|---|---|---|---|---|
| | | Scopes 1 & 2 | Scope 3 | Scopes 1 & 2 | Scope 3 | Scopes 1 & 2 | Scope 3 |
| Equities | 219 | 100% | 100% | 6,100 | 91,733 | 27.9 | 419.2 |
| | *231 (2023)* | *100%* | *100%* | *9,263* | *156,274* | *40.2* | *678.7* |
| | *48 (2019)* | *98%* | *75%* | *6,615* | *20,374* | *140.0* | *567.4* |
| Commercial property | 3 | 48% | 48% | 9 | 17.0 | 5.7 | 11.2 |
| | 3 (2023) | 84% | 59% | 14.8 | 21.8 | 5.7 | 11.2 |
| | 1 (2019) | *100%* | *0%* | *5* | - | *6.2* | - |
| Corporate bonds | 35 | 29% | 29% | 762 | 5,547 | 73.4 | 533.1 |
| | 43 (2023) | 42% | 42% | 981 | 7,889 | 54.3 | 436.6 |
| | 7 (2019) | *55%* | *41%* | *308* | *1,750* | *75.4* | *573.8* |
| Sovereign bonds | 41 | 99% | - | 6,850 | - | 167.5 | - |
| | 14 (2023) | 99% | - | 3,162 | - | 227.9 | - |
| | 7 (2019) | *99%* | - | *2,112* | - | *299.4* | - |
| Cash | 13 | 24% | 24% | 2 | 332 | 0.8 | 107.7 |
| | 11 (2023) | 89% | 89% | 3 | 160 | 0.3 | 15.7 |
| | 8 (2019) | 84% | 84% | 0 | 5 | 0 | 1 |

**Client Bespoke Default Strategy**

| Asset class | Assets as at 31/12/24 (£ million) | Assets for which emission data is available as at 31/12/24 (£ million) | | Total GHG emissions (tonnes $CO_2e$) | | Carbon footprint (tonnes $CO_2e$ / £million) | |
|---|---|---|---|---|---|---|---|
| | | Scopes 1 & 2 | Scope 3 | Scopes 1 & 2 | Scope 3 | Scopes 1 & 2 | Scope 3 |
| Equities | 101 | 100% | 100% | 5,356 | 40,124 | 53.1 | 397.5 |
| Corporate bonds | 4 | 92% | 92% | 99 | 723 | 27.5 | 201.5 |
| Sovereign bonds | 1 | 99% | - | 88 | - | 143.9 | - |
| Cash | 2 | 42% | 42% | 0 | 90 | 0.4 | 95.3 |

*Source: Aon, MSCI, underlying investment managers. Based on underlying holdings as at 31 December 2024 (2023 and 2019 for prior years) and available emissions data at the same date. Figures may be impacted by rounding. Scope 3 emissions have been included where available for 2019 as part of the restatement of metrics*.

Notes:
1. Carbon footprint is calculated based on those assets where greenhouse gas emissions data is available and there is an agreed methodology.
2. Methodology for the calculation of Scope 3 emissions is not yet available for sovereign bonds and hence these emissions are not shown above.

## Commentary

**Greenhouse gas emissions**

This year we've seen a significant increase in overall greenhouse gas emissions for the Aon Managed Core Retirement Pathway Funds compared with previous years. Most of this increase comes from our equity and sovereign bond portfolios.

This reflects that our assets are significantly higher than last year, reflecting that more employers have joined the MasterTrust. This means we hold more assets in the underlying companies and receive a higher share of their carbon emissions. Even if the carbon emissions for each £1 we invest is unchanged, an increase in our assets will lead to an increase in our overall emissions.

The increased allocation to the Climate Transition Equity Fund in our default strategy with specific objectives to reduce carbon emissions year on year, has helped reduce the overall emissions and partly offset the impact of an increase in our assets.

Within the Aon Managed Retirement Pathway Funds, the overall greenhouse gas emissions remain broadly the same as the previous year. This reflects that our assets are slightly higher than last year, which has been mostly offset by a decrease in the carbon footprint, as noted below.

We have also made further changes to reduce climate-related risks within our default strategy through increased exposure to the Climate Transition Equity Fund with specific objectives to reduce carbon emissions year on year. This change has also helped to reduce the overall emissions.

The greenhouse gas emissions for our sovereign bond portfolio are relatively high in contrast to our other assets. The sovereign bond portfolio, particular within the Aon Managed Core Retirement Pathway Funds, contains mainly UK government bonds. Carbon metrics for UK government bonds are based on the total greenhouse gas emissions for the whole of the UK, which are extremely high. By contrast, carbon emissions for equities, for example, are based on the emissions associated with the underlying companies invested in, which are smaller. Hence, the carbon metrics for sovereign bonds are higher than other assets.

Additionally, our sovereign bond portfolio held within the Aon Managed Retirement Pathway Funds includes bonds issued by other countries, including Emerging Market countries. The carbon emissions for these countries tend to be higher than the UK, resulting in proportionately higher carbon metrics for these bonds.

We note there is no industry standard way of calculating scope 3 emissions on sovereign bonds and very limited data availability. We will incorporate these as methodologies improve and evolve and data becomes available.

**Carbon footprint**

Carbon footprint is defined as the total greenhouse gas emissions associated with an investment of £1 million. It is a measure of the intensity of greenhouse gas emissions that allows for the size of the investment and allows us to compare the greenhouse gas emissions between different asset classes.

Since 2019 we have seen a reduction in the carbon footprint across most asset classes. This reflects the changes we have made to our investment strategy to manage climate-related risks for our members including the inclusion climate transition funds.

The biggest reduction in carbon footprint is in our equity and corporate bond portfolios. This is mainly due to an increase in the value of the equity and debt issued by companies which has resulted in a lower carbon footprint. Additionally, some bond issuers with higher carbon emissions have been removed from the underlying index and portfolio.

We have seen a reduction in the carbon footprint for our sovereign bond portfolio over the last year. The emissions for sovereign bonds capture all emissions associated with a country including personal consumption. This means the emissions reported for sovereign bonds include the emissions reported by companies based in that issuing country. To prevent double counting, the emissions from sovereign bonds should not be aggregated with other reported emissions.

We also see significant variation in the carbon footprint between countries, particular for emerging market economies. Looking forward, we are reliant on individual governments taking action to implement policies / changes to achieve reductions in emissions.

**Scope 3 data**

Scope 3 emissions are indirect emissions linked to the wider supply chain and activities of an organisation, from the goods it purchases to the disposal and use of the products it sells.

As an example, the scope 1 and 2 emissions for a car manufacturer are those associated with producing a car. This includes greenhouse gas emissions generated by the manufacturing of an engine or chassis, its assembly into a final product, as well as from electricity supplied to the factory. Scope 3 emissions include the greenhouse gas emissions generated from sourcing material, such as aluminium, zinc, plastic and rubber, transportation and the use of the car by the end consumer, as well any emissions incurred by employees of the manufacturer travelling to and from their place of work.

By their nature, scope 3 emissions can often not be attributable to a single company or organisation. In this example, the scope 3 emissions associated with driving a car would be attributed not only to the car manufacturer but to the oil company who supplied the fuel. These emissions would also be included in the total emissions for an individual country. Additionally, the scope 3 emissions of any organisation tend to include the scope 1 or scope 2 emissions of another organisation. As a result, there will be significant overlap and double counting in scope 3 emissions. Scope 3 emissions also tend to be significantly higher than scope 1 and 2 emissions.

This can be seen in the scope 3 emissions for our assets, which, with the exception of sovereign bonds, are materially higher than our scope 1 and 2 emissions.

We do not show scope 3 emissions for sovereign bonds, as our Scope 1 and 2 emissions already include an estimate of all emissions associated with a country's activity including personal consumption.

**Data quality**

Overall, we have seen data quality remain strong. Our investment manager has been able to obtain data for all our equity portfolio. This includes data reported by the underlying companies and estimated data provided by MSCI. We see lower levels of data availability for non-equity asset classes.

We have seen an improvement in data quality for corporate bonds held within our Aon Managed Core Retirement Pathway Funds, with data quality increasing to 92%. In contrast, we have seen a reduction in the data quality for corporate bonds in the Aon Managed Retirement Pathway Funds. This is driven by low data availability within some of the underlying funds.

Our investment manager has been able to obtain data for most of the sovereign bond portfolio, although by its nature this is estimated.

The data quality for cash has reduced over the year. This is due to more of the underlying cash holdings being treated as commercial paper, time deposits and certificates of deposits, where emissions reporting is generally limited. Overall, the allocation to cash is relatively low so this has minimal impact on the metrics reported.

We have seen the data availability for scope 3 data remain strong this year. This reflects that the quality of reporting and estimation methodology for scope 3 emissions has, and continues to, improve.

Data quality for our client bespoke strategy is strong. Our investment manager has been able to obtain data for all our equity and sovereign bond portfolios and most of our corporate bond portfolio. The exception is cash where the data quality is relatively low, as noted above.

Further detail is provided in 8.

## Sector analysis

Below we set out a breakdown of the carbon emissions and carbon footprint of our assets by sector for each of our default strategies. This is based on the data reported by the underlying companies and uses sector definitions provided by MSCI. Emissions for sovereign bonds are excluded from this analysis.

The sector analysis allows us to identify those sectors with the highest carbon emissions and carbon footprint. In turn, this allows us to work with our investment manager, Aon Investments, to develop our investment strategy, set specific targets for future reductions and focus our stewardship on key areas including specific companies.

**Aon Managed Core Retirement Pathway Funds**

| Sector | Assets as at 31/12/24 (£ million) | Assets for which emission data is available as at 31/12/24 (£ million) | | Total GHG emissions (tonnes $CO_2e$) | | Carbon footprint (tonnes $CO_2e$ / £million) | |
|---|---|---|---|---|---|---|---|
| | | Scopes 1 & 2 | Scope 3 | Scopes 1 & 2 | Scope 3 | Scopes 1 & 2 | Scope 3 |
| Energy | 108 | 100% | 100% | 20,700 | 259,847 | 191.3 | 2,401 |
| Materials | 127 | 100% | 100% | 25,813 | 107,928 | 202.8 | 848 |
| Industrials | 438 | 100% | 100% | 12,442 | 642,934 | 28.5 | 1,467 |
| Consumer Discretionary | 441 | 100% | 100% | 6,628 | 191,975 | 15.1 | 435 |
| Consumer Staples | 248 | 100% | 100% | 7,650 | 120,301 | 30.8 | 484.5 |
| Healthcare | 427 | 100% | 100% | 1,541 | 28,590 | 3.6 | 66.9 |
| Financials | 733 | 100% | 100% | 2,475 | 43,629 | 3.4 | 59.5 |
| Information Technology | 915 | 100% | 100% | 3,077 | 59,551 | 3.4 | 65.1 |
| Communication Services | 304 | 98% | 98% | 1,908 | 9,660 | 6.4 | 32.4 |
| Utilities | 114 | 100% | 100% | 21,412 | 55,173 | 187.4 | 483 |
| Real Estate | 119 | 100% | 100% | 1,282 | 32,923 | 10.8 | 277 |
| Sector Unavailable* | 542 | 25% | 26% | 2,877 | 11,715 | 21.4 | 84.4 |

**Aon Managed Retirement Pathway Funds**

| Sector | Assets as at 31/12/24 al(£ million) | Assets for which emission data is available as at 31/12/24 (£ million) | | Total GHG emissions (tonnes $CO_2e$) | | Carbon footprint (tonnes $CO_2e$ / £million) | |
|---|---|---|---|---|---|---|---|
| | | Scopes 1 & 2 | Scope 3 | Scopes 1 & 2 | Scope 3 | Scopes 1 & 2 | Scope 3 |
| Energy | 6 | 99% | 99% | 1,181 | 14,747 | 184.0 | 2,293 |
| Materials | 7 | 100% | 100% | 1,328 | 6,718 | 181.6 | 919 |
| Industrials | 25 | 100% | 100% | 774 | 36,807 | 30.4 | 1,444 |
| Consumer Discretionary | 25 | 100% | 100% | 410 | 14,178 | 16.6 | 574 |
| Consumer Staples | 15 | 100% | 100% | 488 | 7,470 | 32.6 | 499 |
| Healthcare | 22 | 100% | 100% | 108 | 1,602 | 4.8 | 71 |
| Financials | 42 | 100% | 100% | 76 | 3,387 | 1.8 | 81 |
| Information Technology | 43 | 100% | 100% | 296 | 4,375 | 6.9 | 102 |
| Communication Services | 16 | 97% | 97% | 135 | 527 | 9.0 | 35 |
| Utilities | 8 | 100% | 100% | 1,741 | 4,767 | 212.2 | 579 |
| Real Estate | 22 | 100% | 100% | 200 | 2,360 | 9.1 | 109 |
| Sector Unavailable* | 83 | 4% | 4% | 137 | 691 | 44.1 | 216 |

**Client Bespoke Default Strategy**

| Sector | Assets as at 31/12/24 (£ million) | Assets for which emission data is available as at 31/12/24 (£ million) | | Total GHG emissions (tonnes $CO_2e$) | | Carbon footprint (tonnes $CO_2e$ / £million) | |
|---|---|---|---|---|---|---|---|
| | | Scopes 1 & 2 | Scope 3 | Scopes 1 & 2 | Scope 3 | Scopes 1 & 2 | Scope 3 |
| Energy | 4 | 100% | 100% | 1,211 | 10,035 | 310 | 2,567 |
| Materials | 4 | 100% | 100% | 1,525 | 3,597 | 433 | 1,021 |
| Industrials | 11 | 99% | 100% | 452 | 15,351 | 43 | 1,455 |
| Consumer Discretionary | 12 | 100% | 100% | 178 | 4,050 | 15.4 | 349 |
| Consumer Staples | 6 | 100% | 100% | 184 | 2,808 | 30.0 | 458 |
| Healthcare | 10 | 100% | 100% | 47 | 645 | 4.7 | 65.4 |
| Financials | 19 | 100% | 100% | 91 | 952 | 4.8 | 50.5 |
| Information Technology | 26 | 100% | 100% | 162 | 1,308 | 6.1 | 49.7 |
| Communication Services | 9 | 99% | 99% | 56 | 238 | 6.7 | 28.3 |
| Utilities | 3 | 100% | 100% | 1,497 | 1,599 | 533.2 | 569 |
| Real Estate | 2 | 100% | 100% | 24 | 234 | 10.8 | 105 |
| Sector Unavailable* | 4 | 39% | 40% | 29 | 119 | 20.1 | 79.8 |

*Source: Aon, MSCI, underlying investment managers. Based on underlying holdings as at 31 December 2024 and available emissions data at the same date. Figures may be impacted by rounding. Sectors definitions based on MSCI methodology. Data excludes sovereign bonds.*
**Sector unavailable includes sovereigns, physical cash and some corporate bonds.*

## Commentary

Our investment manager was able to obtain sector data for over 95% of the assets (excluding sovereign bonds) in the Aon Managed Core Retirement Pathway Funds, and over 84% (excluding sovereign bonds) of the assets in the Aon Managed Retirement Pathway Funds.

The three highest emitting sectors were energy, utilities and materials, with over half of all scope 1 and 2 emissions coming from these sectors. Together these three sectors represent less than 10% of all assets.

Scope 3 emissions from these sectors together with the industrials and consumer discretionary sector are significantly higher than all other sectors. This is driven by the more carbon intensive nature of the businesses within these sectors and are the areas where we expect to see the most significant improvements as part of a transition to a net zero economy.

Our investment manager has identified some underlying companies from these sectors as priorities for engagement.

We will consider introducing sector specific targets in the future, to ensure that emissions reductions within the most significant sectors support our net zero target, as well as aligning with the Transition Pathway Initiative’s sectoral decarbonisation pathways.

We will carry out further analysis to breakdown key sectors to understand specific risks, particularly around biodiversity risk including deforestation and water security. We are working with our investment manager and have identified a list of priority companies for further analysis including companies in key sectors such as materials, energy and industrials.

## SBTi alignment

This is measured as the percentage of underlying investments with a declared net-zero or Paris-aligned target that has been verified by the Science-based Target Initiative (SBTi).

The tables below show a breakdown of the temperature alignment metric for each of the two default strategies offered within the MasterTrust, split by asset class. We do not include any data for sovereign bonds, as SBTi targets only apply to companies.

We show both the proportion of the underlying investments that has an approved SBTi target and the proportion that has committed to an SBTi target (not yet approved).

**Aon Managed Core Retirement Pathway Funds**

| Asset class | Assets as at 31/12/24 (£ million) | SBTi Approved | SBTi Committed but not approved | Proportion of assets for which SBTi commitment was not confirmed* |
|---|---|---|---|---|
| Equities | 3,757 | 50% | 11% | 39% |
| Corporate bonds | 368 | 27% | 6% | 67% |
| Sovereign bonds | 343 | Not applicable | Not applicable | Not applicable |
| Cash | 49 | 1% | 5% | 94% |

**Aon Managed Retirement Pathway Funds**

| Asset class | Assets as at 31/12/24 (£ million) | SBTi Approved | SBTi Committed but not approved | Proportion of assets for which SBTi commitment was not confirmed* |
|---|---|---|---|---|
| Equities | 219 | 48% | 9% | 43% |
| Commercial property | 3 | - | - | - |
| Corporate bonds | 35 | 10% | 2% | 88% |
| Sovereign bonds | 41 | Not applicable | Not applicable | Not applicable |
| Cash | 13 | 1% | 3% | 96% |

**Client Bespoke Default Strategy**

| Asset class | Assets as at 31/12/24 (£ million) | SBTi Approved | SBTi Committed but not approved | Proportion of assets for which SBTi commitment was not confirmed* |
|---|---|---|---|---|
| Equities | 101 | 44% | 12% | 44% |
| Corporate bonds | 3.9 | 26% | 6% | 69% |
| Sovereign bonds | 0.6 | Not applicable | Not applicable | Not applicable |
| Cash | 2 | 2% | 6% | 92% |

*Source: Aon, MSCI, underlying investment managers. Figures may be impacted by rounding. Based on underlying holdings as at 31 December 2024 (2023 and 2019 for prior years) and available data at the same date.*
**The proportion of assets for which data was unavailable includes both companies that did not report SBTi alignment, and companies that do not have SBTi alignment as MSCI does not differentiate between these.*

## Commentary

Our investment manager was able to obtain data on all the underlying investments in our equity portfolios and on a large portion of our remaining assets.

Our investment manager also noted that the data provided did not distinguish between companies that have not set SBTi aligned targets and those companies that have not reported that a target has been set.

Within our equity portfolio, around half of the underlying companies have an approved SBTi target, with a further 10% committed but not yet approved.

A lower proportion of our corporate bond and cash portfolio has an approved SBTi target.

The proportion of companies with SBTi committed or approved targets is broadly unchanged from last year. Within this we have seen an increase in companies with SBTi approved targets. This is driven by a combination of improvements in the data, alongside an increase in companies seeking SBTi validation of their climate targets.

Given this evolution, we still believe it is appropriate to include a further portfolio alignment metric using implied temperate rise. We believe implied temperature rise allows for progress to be tracked more accurately given continuing improvements in reporting standards and data availability for this metric.

Within our sovereign or government bond portfolio, while we can't report on SBTi alignment, most of the underlying countries have set a net zero target. This reflects that a large portion of our sovereign bond portfolio is invested in UK government bonds and the UK government has committed to a net zero target in line with the corporate equivalent SBTi.

We recognise there is further work to do and we will be working with our investment manager to identify actions we can take through our stewardship activity to encourage the underlying companies in our portfolio to make a commitment and take appropriate action.

### SBTi aligned targets

Several major banks (some of whom are held within our portfolio), have chosen to exit the process of seeking SBTi validation of their climate targets.

This is not a result of these organisations moving away from a commitment to net zero emissions; rather it is indicative of scrutiny of SBTi as a metric. In particular, the path to achieving net zero emissions is complex and the requirements for SBTi validated net zero targets may interfere with organisations' ability to operate through their climate transition.

## Implied Temperature Rise

This is an estimate of the potential global temperature rise over the rest of the century based on the commitments and business strategy changes made by the underlying companies and issuers. It is expressed as a temperature rise in degrees Celsius associated with the greenhouse emissions from a portfolio.

The tables below show the implied temperature rise for each of the two default strategies offered and our client bespoke strategy, split by asset class. We do not include any data for sovereign bonds, as there is no industry agreed methodology for these assets.

We show the implied temperature rise based on scope 1 & 2 emissions only, scope 3 emissions only and scopes 1, 2 and 3 emissions combined.

**Aon Managed Core Retirement Pathway Funds**

| Asset class | Implied Temperature Rise (°C) | Assets for which data is available as at 31/12/24 | Implied Temperature Rise (°C) | Assets for which data is available as at 31/12/24 | Implied Temperature Rise (°C) | Assets for which data is available as at 31/12/24 |
|---|---|---|---|---|---|---|
| | Scope 1 & 2 emissions | | Scope 3 emissions | | Combined | |
| Equities | 2.0 | 84% | 2.7 | 84% | 2.6 | 84% |
| Corporate bonds | 1.7 | 72% | 2.4 | 72% | 2.3 | 72% |
| Cash | 1.6 | 36% | 2.9 | 36% | 2.9 | 36% |

**Aon Managed Retirement Pathway Funds**

| Asset class | Implied Temperature Rise (°C) | Assets for which data is available as at 31/12/24 | Implied Temperature Rise (°C) | Assets for which data is available as at 31/12/24 | Implied Temperature Rise (°C) | Assets for which data is available as at 31/12/24 |
|---|---|---|---|---|---|---|
| | Scope 1 & 2 emissions | | Scope 3 emissions | | Combined | |
| Equities | 2.1 | 79% | 2.7 | 79% | 2.7 | 79% |
| Corporate bonds | 2.0 | 23% | 2.7 | 23% | 2.6 | 23% |
| Commercial Property* | Not available | Not available | Not available | Not available | Not available | Not available |
| Cash | 1.6 | 24% | 2.9 | 24% | 2.9 | 24% |

**Client Bespoke Default Strategy**

| Asset class | Implied Temperature Rise (°C) | Assets for which data is available as at 31/12/24 | Implied Temperature Rise (°C) | Assets for which data is available as at 31/12/24 | Implied Temperature Rise (°C) | Assets for which data is available as at 31/12/24 |
|---|---|---|---|---|---|---|
| | Scope 1 & 2 emissions | | Scope 3 emissions | | Combined | |
| Equities | 2.3 | 81% | 2.9 | 81% | 2.8 | 81% |
| Corporate bonds | 1.7 | 73% | 2.4 | 73% | 2.3 | 73% |
| Commercial Property* | Not available | Not available | Not available | Not available | Not available | Not available |
| Cash | 1.6 | 41% | 2.9 | 41% | 2.9 | 41% |

*Source: Aon, MSCI, underlying investment managers. Figures may be impacted by rounding. Based on underlying holdings as at 31 December 2024 and available data at the same date.*
**Implied temperature risk for the commercial property fund is currently unavailable.*

## Commentary

Our investment manager was able to obtain data on all the underlying investments in our equity portfolios and on a large portion of our remaining assets.

The highest implied temperature rise is within our equity portfolio and is also the area with the best data quality. In contrast, for those asset classes with lower data quality, such as corporate bonds, this may be indicative of companies with higher emissions, and hence a higher implied temperature rise, being less willing to report.

The implied temperature rise associated with scope 3 emissions is higher than that of scope 1 & 2 emissions. This is largely because reductions in scope 3 emissions are harder to achieve by individual companies, as they fall outside of a company's immediate control. There is also an element of double counting, as scope 3 emissions may be attributable to more than one company.

Additionally, reporting on scope 3 emissions data has been relatively limited until recently, meaning companies have had less time to plan for any future reduction in scope 3 emissions.

Given the inclusion of climate focused strategies and an ESG overlay within our default strategies, we expect to see the implied temperature rise fall over time. Climate change is one of our stewardship priorities. Reflecting this, our

### Global Impact

The inclusion of active impact global equities within the Aon Managed Retirement Pathway Funds aims to invest in businesses that are tackling real world problems including climate change. As an example, many of the underlying companies are involved with technology that help end-users reduce their carbon emissions (scope 3 emissions).

Solutions such as these are critical in tackling climate change and should support future reductions in implied temperature rise.

investment manager has identified some underlying companies from the highest emitting sectors held within our default strategies as priorities for engagement.

We recognise there is further work to do and will be working with our investment manager to identify actions we can take through our stewardship activity to encourage the underlying companies in our portfolio to make a commitment and achieve tangible progress.

## How did we calculate the metrics?

Aon Investments used the data provided to calculate the greenhouse gas emissions, carbon intensity and implied temperature rise for our two default strategies. This calculation uses the latest available data on greenhouse gas emissions published by the underlying companies held, as provided by MSCI.

It can take several months for a company to publish data on their greenhouse gas emissions and some companies may not publish these figures annually. As a result, the metrics shown above may include prior years' data and may not fully represent greenhouse gas emissions emitted in 2024. In all instances our investment manager used the latest available emissions data.

Where data on greenhouse gas emissions for specific stocks / securities is not currently available, Aon Investments has not allowed for these emissions within the carbon metrics. Consequently, the greenhouse gas emissions shown only relate to that part of the portfolio where data is available. This in line with current regulations and is reflected in the data quality metric shown above.

Please note Aon Investments has relied on the data provided to it by the underlying managers and data provided to it by MSCI in carrying out these calculations.

We have established certain parameters and assumptions to standardise the data in a manner consistent with the regulatory guidance at the time of writing. For the sake of clarity, these, together with further information on the methodology used, are provided in Appendix 8.

Aon Investments will continue to engage with the data provider it uses to obtain greenhouse gas emissions to enhance the data available and increase coverage over time, along with the relevant managers where data has been provided and relied upon directly.

### SBTi alignment

Aon Investments used the data provided to it by the underlying managers and data provided to it by MSCI to calculate the proportion of the underlying investments with a declared net-zero or Paris-aligned target that has been verified by the Science-based Target Initiative.

We have not made any estimates for missing data. Our SBTi alignment metric only represents the portion of the assets for which we have data. Where companies do not report on SBTi alignment or have not set a target we have shown this as unavailable.

Further detail on the methodology and assumptions used to calculate the metrics are set out in Appendix 8.

### How we collected the data

Our investment manager, Aon Investments, collected data from all the underlying investment managers used within our two default strategies.

All the underlying managers, with the exception of the commercial property manager, were able to provide a full list of holdings for each underlying fund.

Our investment manager collected the carbon emissions data from our commercial property managers using the industry standard Carbon Emissions Template, a template developed by the industry to help pension schemes meet their climate reporting requirements.

# Notes on the calculations

There is no industry-wide standard for calculating some of the metrics and different managers may use different methods and assumptions. This highlights the importance of climate reporting to improve transparency. We expect that in the future industry best-practice and data available will continue to improve as the industry aligns to expectations and best practice standards.

**Calculating the metrics**

The table below shows how each carbon metric is calculated for each asset class:

| Metric | Asset Class | Approach |
|---|---|---|
| **Total greenhouse emissions** | Equities, corporate bonds, cash | $\sum_{n}^{i}\left(\frac{current\ £\ value\ of\ investment_i}{investee\ company's\ enterprise\ value\ including\ cash_i} \times investee\ company's\ Scope\ 1\ and\ 2\ GHG\ emissions_i\right)$ |
| | Sovereign bonds | $\sum_{n}^{i}\left(\frac{current\ £\ value\ of\ investment_i}{Gross\ Domestic\ Product\_i\ (PPP)} \times The\ country's\ Scope\ 1\ and\ 2\ GHG\ emissions\_i\right)$<br>Gross Domestic Product_i (PPP): Gross Domestic Product based on Purchasing Power Parity for country i. |
| **Carbon footprint** | Equities, corporate bonds, cash | $\frac{\sum_{n}^{i}\left(\frac{current\ £\ value\ of\ investment_i}{investee\ company's\ enterprise\ value\ including\ cash_i}\right) \times investee\ company's\ Scope\ 1 and\ 2\ GHG\ emissions_i}{current\ value\ of\ all\ investments\ \times Data\ coverage}$ |
| | Sovereign bonds | $\frac{\sum_{n}^{i}\left(\frac{current\ £\ value\ of\ investment_i}{Gross\ Domestic\ Product\_i\ (PPP)}\right) \times The\ country's\ Scope\ 1\ and\ 2\ GHG\ emissions_i}{current\ value\ of\ all\ investments\ \times Data\ coverage}$ |
| **Implied Temperature Rise** | Equities, corporate bonds, cash | $2°C + Relative\ company\ level\ over\ or\ undershoot \times Global\ 2°C\ Budget\ \times TCRE\ Factor$<br>TCRE Factor: Transient Climate Response to Cumulative Carbon Emissions was established by the Intergovernmental Panel on Climate Change and provides a relationship that links each additional unit of emissions emitted beyond the available remaining global 2°C carbon budget to degrees of additional warming. |

## SBTi alignment

Our investment manager reported the SBTi alignment of each underlying company from data provided it by the underlying managers and MSCI. This information was aggregated based on the proportion of assets invested in each underlying company.

Our investment manager has not made any estimates for missing data. As a result, our SBTi alignment metric only represents the portion of the portfolio for which we have data.

# Looking to the future
# Our climate-related target

Climate-related targets help us track our efforts to manage the climate-change risk exposure of the MasterTrust and our members' retirement savings.

Previously, we set a target to achieve net zero greenhouse gas emissions for our default strategies, the Aon Managed Core Retirement Pathway Funds and Aon Managed Retirement Pathway Funds, by 2050 – and a 50% reduction in greenhouse gas emissions intensity by 2030.

Our starting point, or 'baseline', for progress against these targets is 2019.

Our target is based on scope 1 and 2 greenhouse gas emissions. As more scope 3 data becomes available and the quality improves, we will consider whether to extend our target to incorporate scope 3 emissions.

We believe establishing this target is crucial to managing climate-related risks and opportunities on our members' behalf – most of whom are investing for multiple decades.

| Interim target: | Interim target: | Net zero target |
|---|---|---|
| **30% reduction in carbon footprint by 2025** | **50% reduction in carbon footprint by 2030** | **Achieve net zero emissions by 2050** |

### Annual update

Each year we review the suitability of the target we have set. Based on the data collected and the metrics calculated this year, we believe the target remains suitable.

In 2023, we established a second interim target, to achieve a 30% reduction in carbon footprint of our default strategies by 2025.

We have also clarified that our interim targets are based on carbon footprint, rather than absolute emissions. We believe this more accurately allows our progress to be assessed, without being distorted by future asset growth as new clients join the MasterTrust.

## Our progress towards the target

When monitoring our progress, we consider that portion of our assets invested in equities, corporate bonds and cash separately to our assets invested in sovereign bonds. This is because we are reliant on individual governments taking action to implement policies / changes to achieve reductions in emissions. Additionally, the methodology used to calculate emissions for sovereign bonds is different to other asset classes.

We measure and report our progress against these targets every year. Below we show our progress towards our net zero target for each of our two default strategies. We have not set a net zero target for our client bespoke strategy and are working with the employer section to agree suitable targets going forward.

**Aon Managed Core Retirement Pathway Funds: Progress towards net zero target**

## Total assets

**2024: Equities, corporate bonds, cash and gold**
£4,175 million

**2019 Equities, corporate bonds, cash**
£188 million

2024: Sovereign bonds
£343 million

**2019: Sovereign bonds**
£12 million

## Total greenhouse Gas emissions

**2024: Equities, corporate bonds, cash and gold**
107,804
tonnes $CO_2e$

**2019: Equities, corporate bonds, cash**
13,678
tonnes $CO_2e$

**2024: Sovereign bonds**
47,931
tonnes $CO_2e$

**2019: Sovereign bonds**
2,456
tonnes $CO_2e$

## Carbon footprint

**2024: Equities, corporate bonds, cash and gold**
26.3
tonnes $CO_2e$/£m

**2019: Equities, corporate bonds, cash**
79.2
tonnes $CO_2e$/£m

**2024: Sovereign bonds**
140
tonnes $CO_2e$/£m

**2019: Sovereign bonds**
203.8
tonnes $CO_2e$/£m

*Source: Aon, MSCI, underlying investment managers. All metrics relate to scope 1 & 2 greenhouse gas emissions only. Based on data as at 31 December 2024 (and 2019 for base year)*
*Note: Carbon footprint is calculated based on those assets where greenhouse gas emissions data is available.*

Since 2019, total scope 1 & 2 greenhouse gas emissions for the Aon Managed Core Retirement Pathway Funds have increased. This reflects significant growth in total assets, which have risen over ten-fold over this period due to a combination of investment growth, contributions from our members and new employers joining the MasterTrust.

More importantly, the carbon footprint for the Aon Managed Core Retirement Pathway Funds (across equities, corporate bonds and cash) has fallen by 67%. This means that for every £1 invested by our members in these funds, their greenhouse gas emissions are reduced by 67% compared with 2019.

Additionally, the carbon footprint for our sovereign portfolio has fallen by 31%. This reflects reductions in greenhouse gas emissions achieved by individual countries, predominantly the UK, over this period.

**Aon Managed Retirement Pathway Funds: Progress towards net zero target**

### Total assets

**2024: Equities, corporate bonds, commercial property, cash and gold**
£274 million

**2019: Equities, corporate bonds, commercial property and cash**
£65 million

2024: Sovereign bonds
£41 million

**2019: Sovereign bonds**
£7 million

### Total greenhouse Gas emissions

**2024: Equities, corporate bonds, commercial property, and gold**
6,873
tonnes $CO_2$e

**2019: Equities, corporate bonds, commercial property and cash**
6,928
tonnes $CO_2$e

**2024: Sovereign bonds**
6,850
tonnes $CO_2$e

**2019: Sovereign bonds**
2,112
tonnes $CO_2$e

### Carbon footprint

**2024: Equities, corporate bonds, commercial property, and gold**
29.4
tonnes $CO_2$e/£m

**2019: Equities, corporate bonds, commercial property and cash**
117.0
tonnes $CO_2$e/£m

**2024: Sovereign bonds**
167.5
tonnes $CO_2$e/£m

**2019: Sovereign bonds**
299.4
tonnes $CO_2$e/£m

*Source: Aon, MSCI, underlying investment managers. All metrics relate to scope 1 & 2 greenhouse gas emissions only. Based on data as at 31 December 2024 (and 2019 for base year)*
*Note: Carbon footprint is calculated based on those assets where greenhouse gas emissions data is available.*

Since 2019, total scope 1 & 2 greenhouse gas emissions for the Aon Managed Retirement Pathway Funds have increased. This again reflects significant growth in total assets, which have risen four-fold over this period due to a combination of investment growth, contributions from our members and new employers joining the MasterTrust.

More importantly, the carbon footprint for the Aon Managed Retirement Pathway Funds (equities, property, corporate bonds and cash) has fallen by

75%. This means that for every £1 invested by our members in these funds, their greenhouse gas emissions are reduced by 75% compared with 2019.

Additionally, the carbon footprint for our sovereign portfolio has fallen by 44%. This reflects reductions in greenhouse gas emissions achieved by individual countries, including the UK, over this period.

The tables above show that, based on current emissions data and market conditions, we have met our 2025 and 2030 targets on our default strategies, excluding sovereign bonds, to achieve a 50% reduction in greenhouse gas emissions.

Looking ahead, we recognise that we may see smaller reductions, or even an increase, in our reported carbon footprint over the next few years due to market movements and variance in greenhouse emissions reported by companies. We also recognise that our ultimate net zero target incorporates sovereign emissions. Achieving this is reliant on governments progressing towards, and ultimately honouring, their own net zero targets.

Going forward, we will be reviewing our target and will agree a new interim target for reporting purposes.

Additionally, while our target is based on scope 1 and 2 greenhouse gas emissions, we will consider whether to extend our target to incorporate scope 3 emissions as the availability and quality of scope 3 data improves.

### What are we doing to reach the target?

The reduction in the carbon footprint achieved to date across our default strategies is mainly due to changes made to the investment strategy since 2019 to incorporate an ESG overlay on a large portion of our equities, which make up a significant proportion of the default investment strategy.

This includes a climate transition equity fund, an ESG overlay with a low carbon approach within the multi-factor equity allocation as well as further ESG screens to remove exposure to some of the worst-polluting areas such as thermal coal, tar sands oil extraction and fracking.

This year our investment manager increased the allocation to climate transition equities within both default strategies. This change has provided a further reduction in the carbon footprint of these funds.

This year we have seen smaller but continued reductions in the carbon footprint of our default strategies. This is partly due to an increase in asset values combined with continued progress made by the underlying companies in our default strategies to reduce greenhouse gas emissions.

Looking ahead, our investment manager also plans to introduce an allocation to private markets with a strong sustainability focus. These changes would be expected to lead to further reductions in the carbon footprint of our default strategies.

Our investment manager has identified some underlying companies from the highest emitting sectors held within our default strategies as priorities for engagement.

We will also carry out further analysis to breakdown key sectors to understand specific risks, particularly around biodiversity risk including deforestation and water security. We are working with our investment manager and have identified a list of priority companies for further analysis including companies in key sectors such as materials, energy and industrials.

# Appendices

# Appendix 1 – Glossary

| | |
|---|---|
| **Governance** | refers to the system by which an organisation is directed and controlled in the interests of shareholders and other stakeholders.[1] Governance involves a set of relationships between an organisation's management, its board, its shareholders, and other stakeholders. Governance provides the structure and processes through which the objectives of the organisation are set, progress against performance is monitored, and results are evaluated.[2] |
| **Strategy** | refers to an organisation's desired future state. An organisation's strategy establishes a foundation against which it can monitor and measure its progress in reaching that desired state. Strategy formulation generally involves establishing the purpose and scope of the organisation's activities and the nature of its businesses, taking into account the risks and opportunities it faces and the environment in which it operates.[3] |
| **Risk management** | refers to a set of processes that are carried out by an organisation's board and management to support the achievement of the organisation's objectives by addressing its risks and managing the combined potential impact of those risks.[4] |
| **Qualitative analysis** | refers to an approach that uses subjective judgement to analyse a manager's exposure to climate-related risks based on non-quantifiable information. [5] |
| **Quantitative analysis** | refers to analysis of a situation or event, especially a financial market, by means of complex mathematical and statistical modelling. [6] |
| **Climate-related risk** | refers to the potential negative impacts of climate change on an organisation. Physical risks emanating from climate change can be event-driven (acute) such as increased severity of extreme weather events (e.g., cyclones, droughts, floods, and fires). They can also relate to longer-term shifts (chronic) in precipitation and temperature and increased variability in weather patterns (e.g., sea level rise). Climate-related risks can also be associated with the transition to a lower-carbon global economy, the most common of which relate to policy and legal actions, technology changes, market responses, and reputational considerations.[7] |

[1] A. Cadbury, Report of the Committee on the Financial Aspects of Corporate Governance, London, 1992.
[2] OECD, G20/OECD Principles of Corporate Governance, OECD Publishing, Paris, 2015.
[3] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017
[4] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017
[5] Investopedia.
[6] Oxford English Dictionary.
[7] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017

| | |
|---|---|
| **Climate-related opportunity** | refers to the potential positive impacts related to climate change on an organisation. Efforts to mitigate and adapt to climate change can produce opportunities for organisations, such as through resource efficiency and cost savings, the adoption and utilization of low-emission energy sources, the development of new products and services, and building resilience along the supply chain. Climate-related opportunities will vary depending on the region, market, and industry in which an organisation operates.[8] |
| **Greenhouse gas emissions scope levels**[9] | Greenhouse gases are categorised into three types or 'scopes' by the Greenhouse Gas Protocol, the world's most used greenhouse gas accounting standard.<br><br>Scope 1 refers to all direct GHG emissions.<br><br>Scope 2 refers to indirect GHG emissions from consumption of purchased electricity, heat, or steam.<br><br>Scope 3 refers to other indirect emissions not covered in Scope 2 that occur in the value chain of the reporting company, including both upstream and downstream emissions. Scope 3 emissions could include: the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g., transmission and distribution losses), outsourced activities, and waste disposal.[10] |
| **Value chain** | refers to the upstream and downstream life cycle of a product, process, or service, including material sourcing, production, consumption, and disposal/recycling. Upstream activities include operations that relate to the initial stages of producing a good or service (e.g., material sourcing, material processing, supplier activities). Downstream activities include operations that relate to processing the materials into a finished product and delivering it to the end user (e.g., transportation, distribution, and consumption).[11] |
| **Climate scenario analysis** | is a process for identifying and assessing a potential range of outcomes of future events under conditions of uncertainty. In the case of climate change, for example, scenarios allow an organisation to explore and develop an understanding of how the physical and transition risks of climate change may impact its businesses, strategies, and financial performance over time.[12] |
| **Net zero** | means achieving a balance between the greenhouse gases emitted into the atmosphere, and those removed from it. This balance – or net zero – will happen when the amount of greenhouse gases add to the atmosphere is no more than the amount removed.[13] |

[8] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017
[9] World Resources Institute and World Business Council for Sustainable Development, The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition), March 2004.
[10] PCC, Climate Change 2014 Mitigation of Climate Change, Cambridge University Press, 2014.
[11] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017
[12] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017
[13] Energy Saving Trust, What is net zero and how can we get there? - Energy Saving Trust, October 2021

| | |
|---|---|
| **Just and fair transition** | means sharing the benefits of a green economy transition and ensuring vulnerable countries, regions and people do not fall behind. |
| **Principles for Responsible Investment (PRI)** | were developed by an international group of institutional investors reflecting the increasing relevance of Environmental, Social and Governance issues to investment practices. The process was convened by the United Nations Secretary-General. |
| **UK Stewardship Code** | is an important part of the investment stewardship eco-system in the UK, safeguarding the interests of the public and pension holders by promoting transparency and accountability. Itis also adopted by global investors. |
| **Transition Pathway Initiative** | is a global Initiative launched by the Environment Agency and the Church of England National Investing Bodies in 2017. Led by asset owners and supported by asset managers and service providers, it assesses preparedness by companies in high carbon sectors for transition to a low carbon economy. |
| **The Paris Agreement** | is an international treaty on climate change that was adopted in 2015 that has a long-term temperature goal which is to keep the rise in global surface temperature to well below 2 °C (3.6 °F) above pre-industrial levels. |
| **Institutional Investors Group on Climate Change** | is the European membership body for investor collaboration on climate change. Its mission is to support and enable the investment community in driving significant and real progress by 2030 towards a net zero and resilient future. |
| **All Parliamentary Group on Sustainable Finance** | brings together policy makers, industry players, academics and practitioners to build political consensus for the changes required in the finance sector to help reach net zero. |
| **UK Green Finance Task Force** | raises financing from investors to fund green expenditures that tackle climate change, biodiversity loss and other environmental challenges |
| **UN Global Compact Principles** | The UN Global Compact (UNGC) asks companies to embrace, support and enact, within their sphere of influence, a set of core values in the areas of human rights, labour standards, the environment, and anti-corruption. These core values make up the Ten Principles[14] of the UNGC. |

[14] UNGC, https://www.unglobalcompact.org.uk/the-ten-principles/, July 2024

# Appendix 2 – An explanation of climate risk categories

Climate-related risks are categorised into physical and transition risks and we provide examples below.

**Transition risks**

Transition risks are those related to the ability of an organisation to adapt to the changes required to reduce greenhouse gas emissions and transition to renewable energy. Within transition risks, there are four key areas: policy and legal, technological innovation, market changes and reputational risk.

## Policy and legal

**Examples**

- Increased pricing of greenhouse gas emissions
- Enhanced emissions reporting obligations
- Regulation of existing products and services

**Potential financial impacts**

- Increased operating costs, for example, higher compliance costs and increased insurance premiums.
- Write-offs, asset impairment and early retirement of existing assets due to policy changes.

## Technology

**Examples**

- Cost to transition to lower emissions technology
- Unsuccessful investments in new technologies

**Potential financial impacts**

- Write-offs and early retirement of existing assets.
- Capital investments in technology development.
- Costs to adopt new practices and processes.

## Market

**Examples**

- Changing customer behaviour
- Uncertainty in market signals
- Increased cost of raw materials

**Potential financial impacts**

- Reduced demand for goods and services due to shift in consumer preferences.
- Abrupt and unexpected increases in energy costs.
- Re-pricing of assets, for example, fossil fuel reserves, land valuations and securities valuations.

## Reputational

**Examples**

- Stigmatisation of sector
- Increased stakeholder concern or negative stakeholder feedback

**Potential financial impacts**

- Reduced revenue from decreased demand for goods and services.
- Reduced revenue from decreased production capacity, for example, delayed planning approvals and supply chain interruptions.
- Reduced revenue from negative impacts on workforce management and planning.

**Physical Risks**

Physical risks refer to the physical impacts of climate change on an organisation's operations. They directly impact an organisation's ability to carry out its operations due to climate disruption.

Physical risks fall into two subcategories: acute and chronic. Acute risks refer to extreme climate events, such as flooding and wildfires. Chronic risks refer to trends over time, such as an increase in temperature or ocean acidification.

## Acute

**Examples**

- Extreme heat
- Extreme rainfall
- Floods
- Droughts
- Storms, for example, hurricanes

## Chronic

**Examples**

- Water stress
- Sea level rises
- Land degradation
- Variability in temperature
- Variability in precipitation

# Appendix 3 – Climate-related opportunities

The transition to a low-carbon economy will inevitably create winners and losers. While this is a risk, this also creates opportunities and we provide examples below:

| | | |
|---|---|---|
| **Cleaner Energy** | **Power generation** | • Solar<br>• Wind<br>• Other clean power<br>• Increased efficiency<br>• Fuel switch; gas, biomass<br>• Nuclear |
| | **Clean technology innovation** | • Carbon capture<br>• Infrastructure management<br>• Supply chain management |
| | **Transport** | • Emissions reduction<br>• Propulsion systems<br>• Battery technology |
| | **Sustainable biofuels** | • Biodiesel<br>• Ethanol |
| **Environmental resources** | **Water** | • Desalination / purification<br>• Wastewater treatment<br>• Distribution and management |
| | **Agriculture** | • Irrigation innovation<br>• Clean pesticides<br>• Consumer food purity<br>• Seeds and breeding technology |
| | **Waste management** | • Recycling<br>• Toxin management<br>• Waste to energy<br>• Land remediation |
| **Energy and material efficiency** | **Advanced materials** | • Advanced coatings<br>• Lightweight substitutes<br>• Solvents and biodegradables |
| | **Building efficiency** | • Building management<br>• Green data centre management<br>• Heating and cooling systems<br>• Lighting systems<br>• Insulation and materials<br>• Micro generation / micro-CHP |
| | **Power grid efficiency** | • Transmission (including smart grids)<br>• Distribution<br>• Storage (e.g. batteries, pump storage)<br>• Infrastructure<br>• Energy management systems |

| | | |
|---|---|---|
| **Environmental services** | **Environmental protection** | • Land conservation<br>• Environmental restoration<br>• Timberland<br>• Forestry<br>• Sea defences |
| | **Business services** | • Insurance<br>• Logistics<br>• Green focused banking<br>• Microfinance<br>• Consultancy / advisory<br>• Intellectual property |

# Appendix 4 – Climate scenario modelling assumptions

The purpose of the climate scenario modelling is to consider the impact of climate-related risks on the MasterTrust's assets and the value of our members' retirement savings.

The climate change scenarios were developed by our investment advisor, Aon, and are based on detailed assumptions. It Is important to remember they are only illustrative and are subject to considerable uncertainty.

The scenarios consider the exposure of the MasterTrust to climate-related risks and the approximate impact on the value of our members' retirement savings over the long-term.

The scenario modelling assumes a deterministic projection of assets for each representative member, using standard actuarial techniques to discount and project the expected cashflows. Specifically:

I. It models the full yield curve as this allows for a more accurate treatment of the asset cashflows and more realistic modelling of the future distribution of interest rates and inflation.
II. The modelling parameters vary deterministically for each scenario.
III. No allowance is made for expenses, with modelled asset cashflows left unaffected by these factors.
IV. For active members the projections assume contributions are paid mid-year and continue to be paid until retirement. The projections allow for expected future salary growth.
V. For deferred members, no allowance for future contributions is made.
VI. The projections assume members retire at age 65, no withdrawals are made from the asset pool over the modelling period and do not allow for withdrawals in retirement. The exception is the at-retirement member, where the projections assume withdrawals of £3,000 p.a. (3% of the assumed starting fund value) from the asset pool over the modelling period. These are assumed to be paid half-way through the year. No contributions are made into the fund after retirement.

The scenario modelling focuses on the impact of climate change on the MasterTrust's assets, highlighting areas where risk might be reduced through changing the investment strategy. When making changes to the investment strategy we will also consider other relevant issues, such as governance, cost and implementation.

The scenario modelling does not consider the impact climate change could have on mortality risk and subsequent cost of securing benefits in retirement for individual members. Also, the modelling does not consider non-investment risks such as the timing of when members take their benefits, or operational risks.

The scenario modelling reflects recent market conditions and current market views. The model may produce different results for the same strategy under different market conditions.

## Other modelling assumptions for assets

| | **Temperature risk by 2100** | **Reach net zero by** | **Carbon price (2030/2050)** | **Introduction of environmental regulation** |
|---|---|---|---|---|
| No Transition | +4C | After 2050, if at all | $40/$50 | None |
| Disorderly Transition | <3C | After 2050 | $65/$340 | Late and aggressive |
| Abrupt Transition | 1.5C – 2C | 2050 | $135/$280 | Aggressive |
| Orderly Transition | 1.3C – 2C | 2050 | £100/$125 | Coordinated |
| Disinflationary Transition | <1.5C | 2045 | $80/$50 | High coordination |

# Appendix 5 – Portfolio resilience and scenario analysis

Below we provide the climate change scenario analysis for our example members invested in the Aon Managed Core Retirement Pathway Funds and Aon Managed Retirement Pathway Funds.

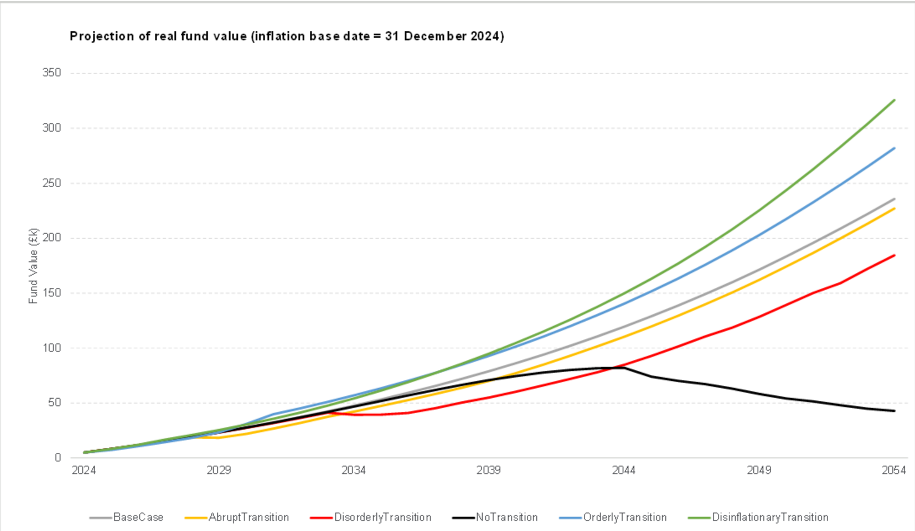
## Impact Assessment: Aon Managed Core Retirement Pathway Funds

Starting with our youngest representative member invested in the Aon Managed Core Retirement Pathway Funds, the chart overleaf illustrates the projected real fund value over the next 30 years for each of our five climate change scenarios, together with our base case scenario (grey line).

The projections allow for investment growth and assume our representative members continues to pay contributions to their pension. The projections are shown in real terms i.e. in today's money. Appendix 4 provides further information on the assumptions and limitations of these projections.

### Member A: 25-years old active member invested in the Aon Managed Core Retirement Pathway Funds

**Projected real fund value**




Source: Aon. Fund values are shown in real terms projected from 31 December 2024. Note these projections assume no withdrawals from the asset pool over the modelling period and contributions into the fund are assumed to be paid half-way through the year.

The projections show that the default investment strategy exhibits reasonable resilience under most of the climate scenarios, particularly in the short to medium-term. This is due to inclusion of an ESG overlay on the equity portfolio. This is improved further by recent changes to incorporate a climate transition equity strategy.

In all the scenarios modelled, the default investment strategy's equity exposure proved to be the most volatile asset class, seeing particularly large drawdowns in the No Transition (black line) and Disorderly Transition scenario (red line).

In the short-term, the biggest risk for our youngest representative member is the Orderly Transition scenario (blue line). Poor asset returns, particularly from equities, in the next few years cause the value of members' pension savings to fall. The overall decline is mitigated by the ESG overlay in place, leaving our youngest representative member better positioned to benefit from the material recovery in later years.

In the longer term, the biggest risk is the No Transition scenario (black line). While initially members' pension savings rise in value, a large shock to asset returns takes place after 20 years. This results in lower returns over the longer term and a lower value of members' pension savings compared with our Base Case scenario (grey line).

The Disorderly Transition scenario (red line) also results in relatively poor outcomes over the longer term. This is due to a large shock to asset returns which takes place after 10 years, resulting in lower results over the longer term and a lower value of members' pension savings compared with other scenarios.

Another key risk is the volatility of projected fund levels. Under the No Transition, Disorderly Transition and Abrupt Transition scenarios, our youngest representative member might expect lower projected fund values compared with our Base Case scenario. Lower projected fund values mean members are likely to have less money to spend in retirement. In turn, this may result in our members needing to pay additional contributions, retire later or accept a lower level of income in retirement.

Below we share the projections for the other representative members.

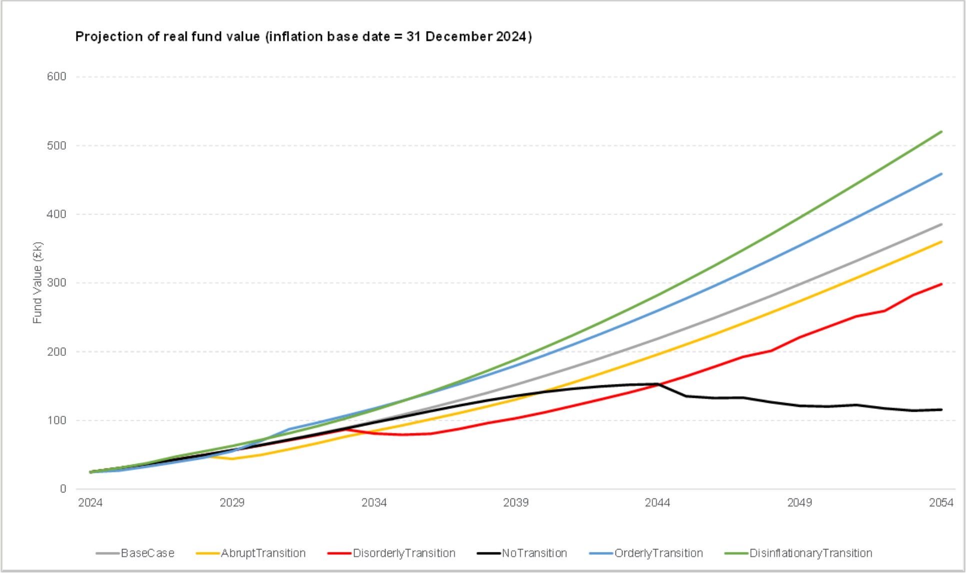
Overall, the analysis shows the default investment strategy exhibits reasonable resilience under most of the climate scenarios, particularly in the short to medium-term. This is due to inclusion of an ESG overlay on the equity portfolio and inclusion of more defensive asset classes as members approach retirement. The recent changes to incorporate a climate transition equity strategy will help to increase this resilience.

As for our youngest representative member, in the short-term, the biggest risk for our members is the Orderly Transition scenario (blue line). The impact is mitigated by the ESG overlay in place and inclusion of more defensive asset classes for members closer to retirement. While this scenario represents a risk in the short-term, our younger members have time to recover from the impact of the transition, especially as they are not able to access their retirement savings for many years.

In the longer term, for most of our members, and particularly members in the early to mid-part of their career, the biggest risk is the No Transition (black line) and Disorderly Transition (red line) scenario.

## Member B: 35-years old active member invested in the Aon Managed Core Retirement Pathway Funds

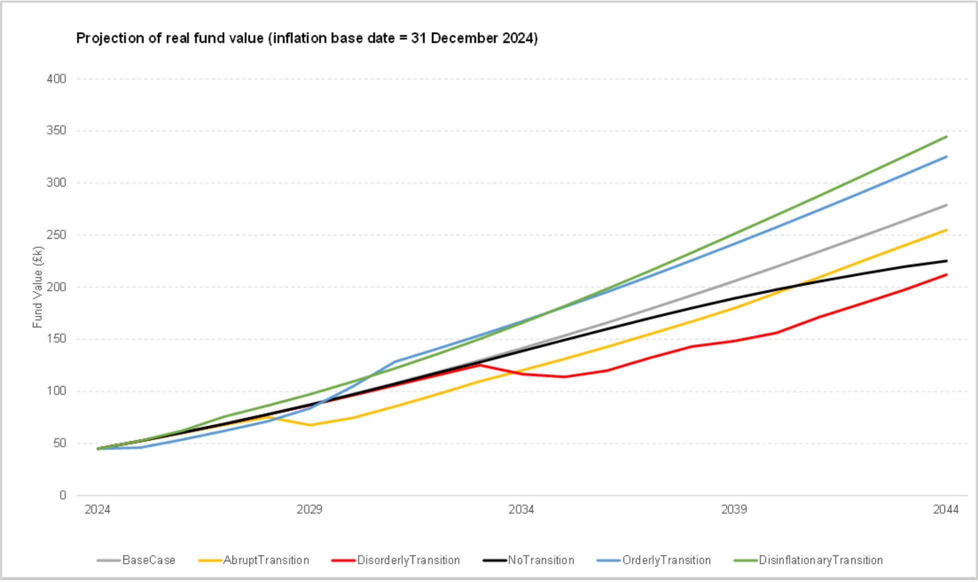
**Projected real fund value**




Source: Aon. Fund values are shown in real terms projected from 31 December 2024. Note these projections assume no withdrawals from the asset pool over the modelling period and contributions into the fund are assumed to be paid half-way through the year.

## Member C: 45-years old active member invested in the Aon Managed Core Retirement Pathway Funds

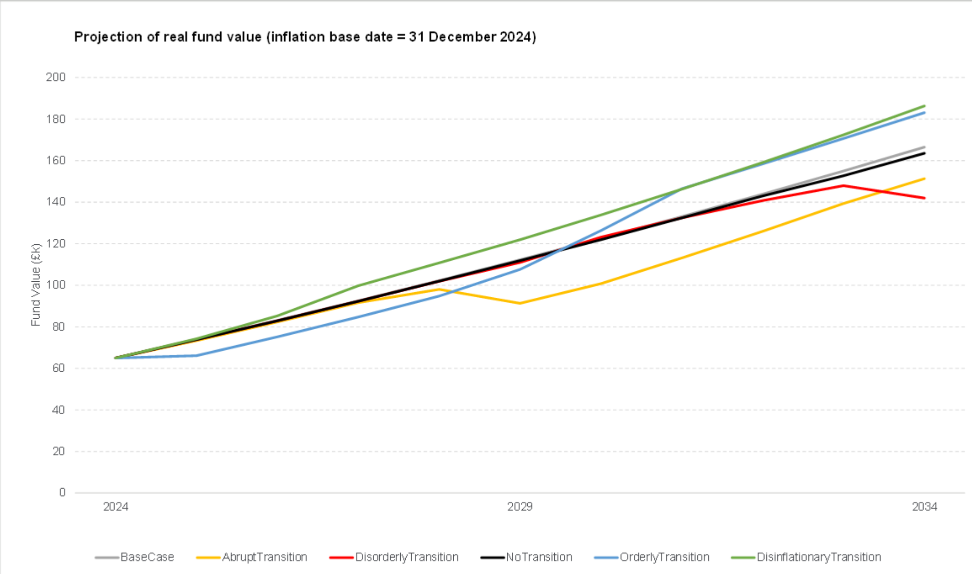
**Projected real fund value**




Source: Aon. Fund values are shown in real terms projected from 31 December 2024. Note these projections assume no withdrawals from the asset pool over the modelling period and contributions into the fund are assumed to be paid half-way through the year.

## Member D: 55-years old active member invested in the Aon Managed Core Retirement Pathway Funds

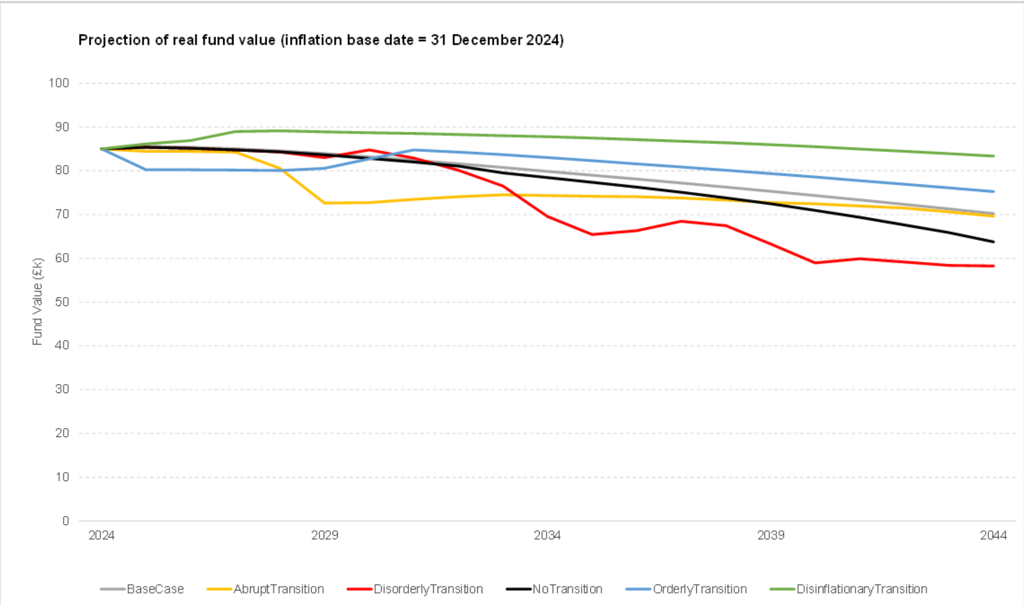
**Projected real fund value**




Source: Aon. Fund values are shown in real terms projected from 31 December 2024. Note these projections assume no withdrawals from the asset pool over the modelling period and contributions into the fund are assumed to be paid half-way through the year.

## Member E: 65-years old member accessing drawdown and invested in the Aon Managed Core Retirement Pathway Funds

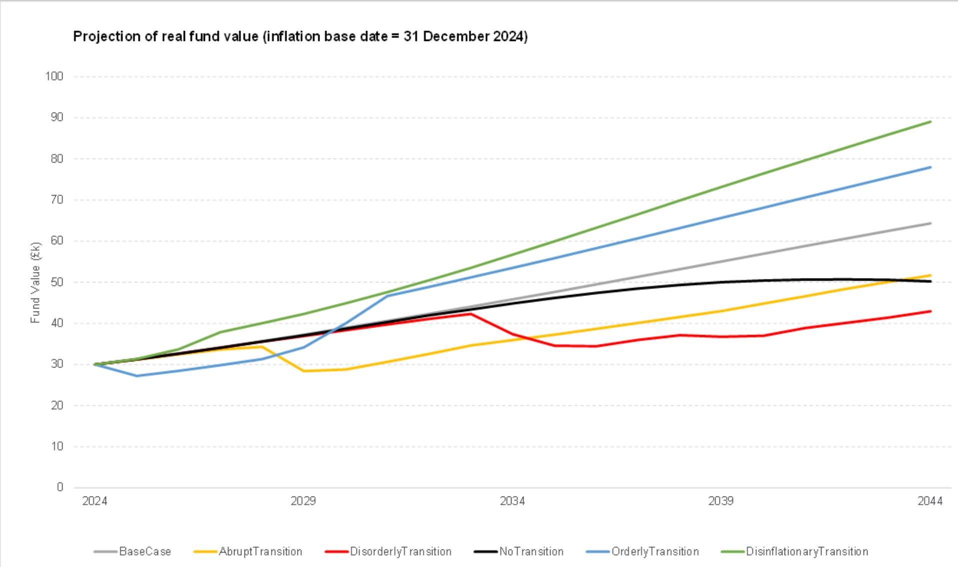
**Projected real fund value**




Source: Aon. Fund values are shown in real terms projected from 31 December 2024. Note these projections assume withdrawals of £3,000 p.a. (3% of the assumed starting fund value) from the asset pool over the modelling period. These are assumed to be paid half-way through the year. No contributions are made into the fund after retirement.

### Member F: 45-years old deferred member invested in the Aon Managed Core Retirement Pathway Funds

**Projected real fund value**




Source: Aon. Fund values are shown in real terms projected from 31 December 2024. Note these projections assume no withdrawals from the asset pool over the modelling period and no contributions are paid into the fund.

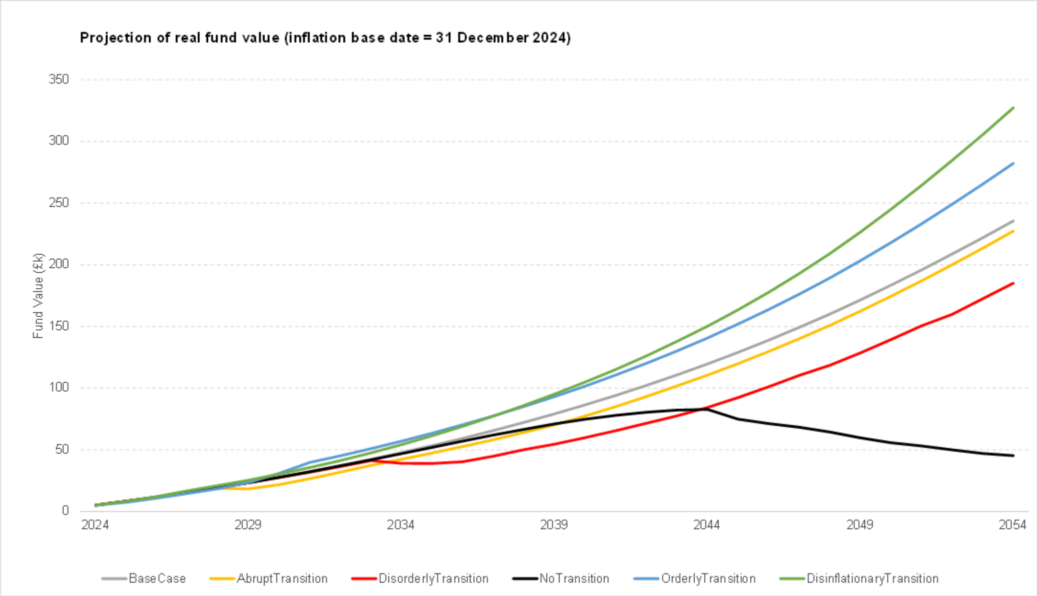
## Impact Assessment: Aon Managed Retirement Pathway Funds

Starting with our youngest example member invested in the Aon Managed Retirement Pathway Funds, the chart below illustrates the projected real fund value over the next 30 years for each of our five climate change scenarios, together with our base case scenario (grey line).

The projections allow for investment growth and assume our example members continues to pay contributions to their pension. The projections are shown in real terms i.e. in today's money.

### Member A: 25-years old active member invested in the Aon Managed Retirement Pathway Funds

**Projected real fund value**




Source: Aon. Fund values are shown in real terms projected from 31 December 2024. Note these projections assume no withdrawals from the asset pool over the modelling period and contributions into the fund are assumed to be paid half-way through the year.

The projections show that the default investment strategy exhibits reasonable resilience under most of the climate scenarios, particularly in the short to medium-term. This is due to inclusion of an ESG overlay on the equity portfolios. This is improved further by the recent changes to incorporate a climate transition equity strategy.

In all the scenarios modelled, the default investment strategies' equity exposure proved to be the most volatile asset class, seeing particularly large drawdowns in the No Transition (black line) and Disorderly Transition (red line) scenario.

In the short-term, the biggest risk for our youngest representative member is the Orderly Transition scenario (blue line). Poor asset returns, particularly from equities, in the next few years cause the value of members' pension savings to fall. The overall decline is mitigated by the ESG overlay in place, leaving our youngest representative member better positioned to benefit from the material recovery in later years.

In the longer term, the biggest risk is the No Transition scenario (black line). While initially members' pension savings rise in value, a large shock to asset returns takes place after 20 years. This results in very poor returns over the longer term and a lower value of members' pension savings compared with our Base Case scenario (grey line).

The Disorderly Transition scenario (red line) also results in relatively poor outcomes over the longer term. This is due to a large shock to asset returns which takes place after 10 years, resulting in lower results over the longer term and a lower value of members' pension savings compared with other scenarios. Another key risk is the volatility of projected fund levels. Under the No Transition, Disorderly Transition and Abrupt Transition scenarios, our youngest representative member might expect lower projected fund values compared with our Base Case scenario. Lower projected fund values mean members are likely to have less money to spend in retirement. In turn, this may result in our members needing to pay additional contributions, retire later or accept a lower level of income in retirement.

In the next few pages we share the projections for the other example members.

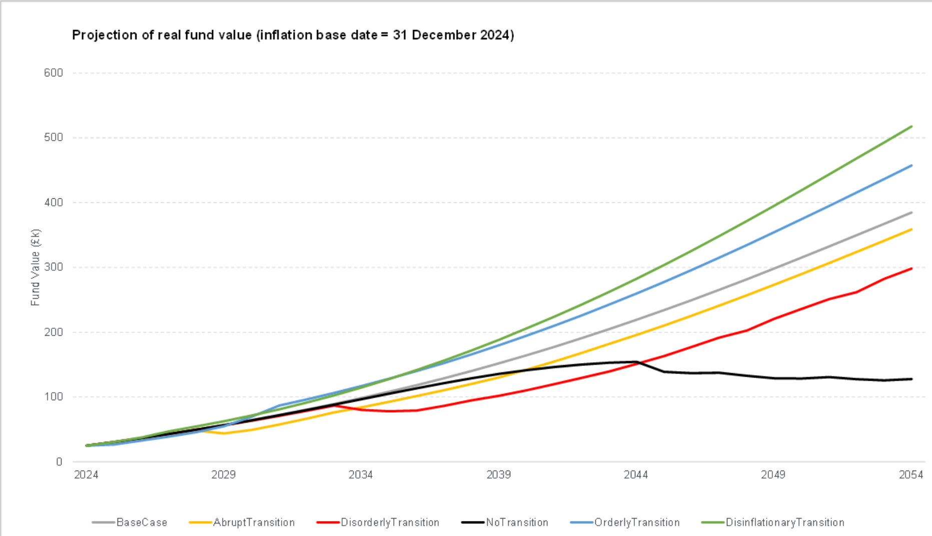
Overall, the analysis shows the default investment strategy exhibits reasonable resilience under most of the climate scenarios, particularly in the short to medium-term. This is due to inclusion of an ESG overlay on the equity portfolios and inclusion of more defensive asset classes as members approach retirement. The recent changes to incorporate a climate transition equity strategy will help to increase this resilience.

As for our youngest representative members, in the short-term, the biggest risk for our members is the Orderly Transition scenario (blue line). The impact is mitigated by the ESG overlay in place and inclusion of more defensive asset classes for members closer to retirement.

In the longer term, for most of our members, and particularly members in the early to mid-part of their career, the biggest risk is the No Transition (black line) and Disorderly Transition (red line) scenario.

### Member B: 35-years old active member invested in the Aon Managed Retirement Pathway Funds

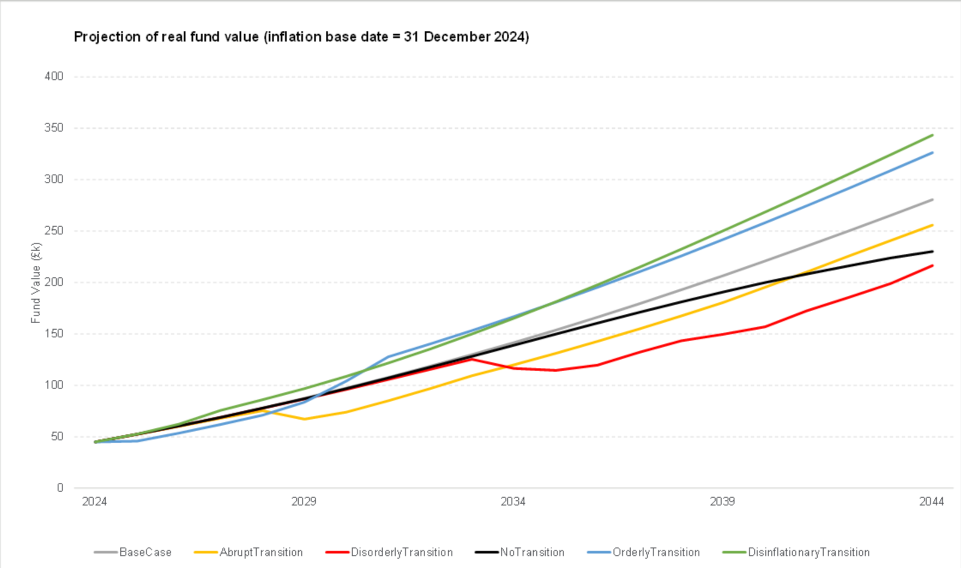
**Projected real fund value**




Source: Aon. Fund values are shown in real terms projected from 31 December 2024. Note these projections assume no withdrawals from the asset pool over the modelling period and contributions into the fund are assumed to be paid half-way through the year.

## Member C: 45-years old active member invested in the Aon Managed Retirement Pathway Funds

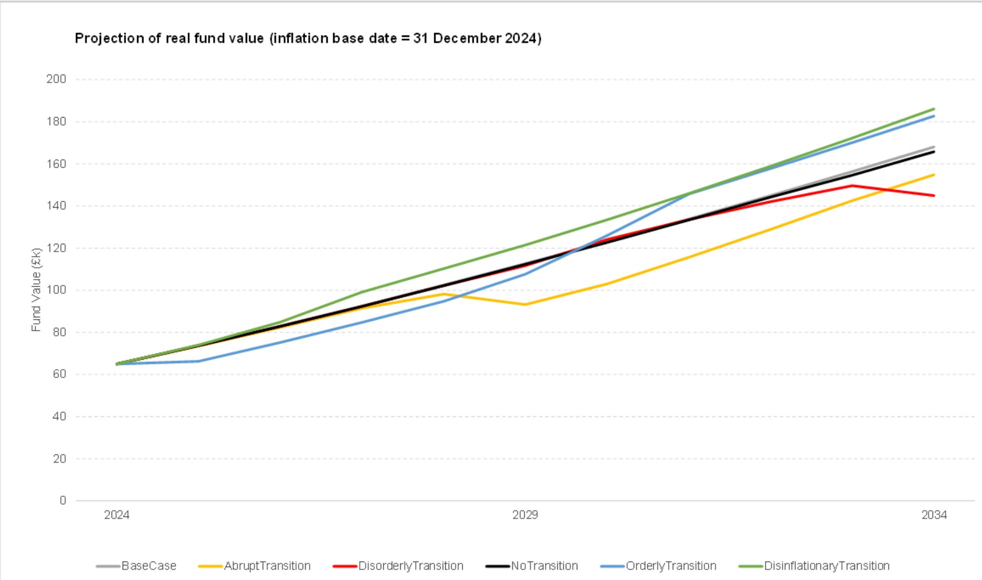
**Projected real fund value**




Source: Aon. Fund values are shown in real terms projected from 31 December 2024. Note these projections assume no withdrawals from the asset pool over the modelling period and contributions into the fund are assumed to be paid half-way through the year.

## Member D: 55-years old active member invested in the Aon Managed Retirement Pathway Funds

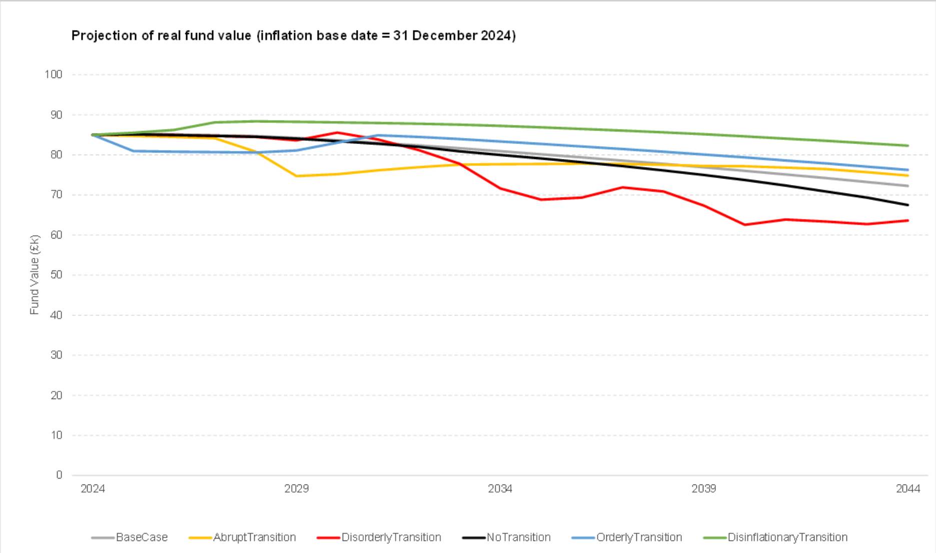
**Projected real fund value**




Source: Aon. Fund values are shown in real terms projected from 31 December 2024. Note these projections assume no withdrawals from the asset pool over the modelling period and contributions into the fund are assumed to be paid half-way through the year.

## Member E: 65-years old member accessing drawdown and invested in the Aon Managed Retirement Pathway Funds

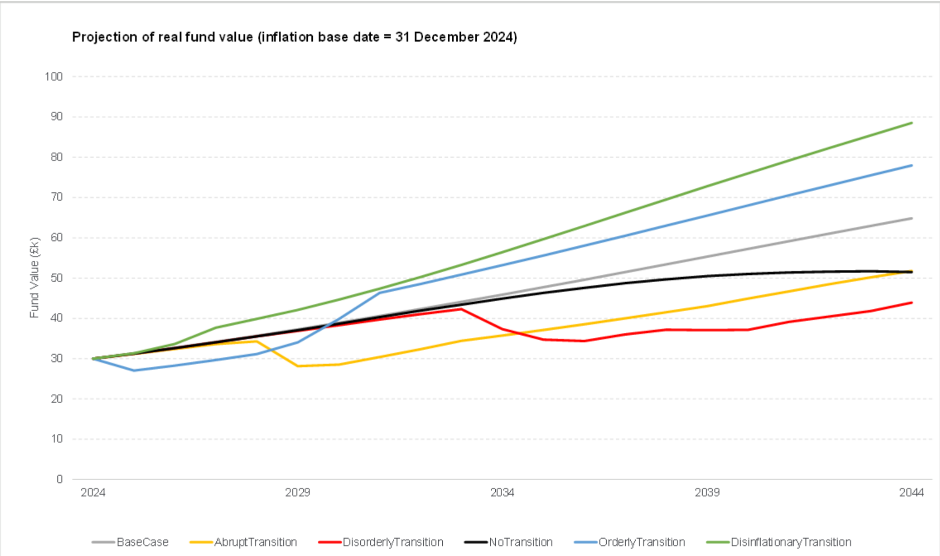
**Projected real fund value**




Source: Aon. Fund values are shown in real terms projected from 31 December 2024. Note these projections assume withdrawals of £3,000 p.a. (3% of the assumed starting fund value) from the asset pool over the modelling period. These are assumed to be paid half-way through the year. No contributions are made into the fund after retirement.

## Member F: 45-years old deferred member invested in the Aon Managed Retirement Pathway Funds

**Projected real fund value**




Source: Aon. Fund values are shown in real terms projected from 31 December 2024. Note these projections assume no withdrawals from the asset pool over the modelling period and no contributions are paid into the fund.

# Appendix 6 – Climate risk management framework

We maintain a climate risk management framework that seeks to capture the climate-related risks the MasterTrust is exposed to.

We carry out a detailed annual review of our Climate Risk Management Framework. Climate-related risks are also included in our wider risk management framework, which we reassess on a quarterly basis.

Below we provide an overview of our climate risk management framework. This describes who is involved, what is done and how often.

## Governance

| Activity | TCFD Pillar | Advisor / supplier support | Frequency of review |
|---|---|---|---|
| Review climate change governance framework | 1A, 3A, 3B | Aon | Annual |
| Review ESG beliefs (including climate change) | 1A | Investment advisor | Ongoing |
| Trustee training on climate-related issues | 1B, 3A | Advisors | Annual |
| Review advisor objectives to ensure advisors have appropriate climate capability, and bring important, relevant and timely climate-related issues to the Trustee's attention | 1B, 3A | Advisors | Annual |
| Ensure investment proposals and changes to the Aon Managed Funds offered to members explicitly consider the impact of climate risks and opportunities, and seek investment opportunities | 2A, 2B | Investment advisor / Investment manager | Ongoing |
| Engage with the investment manager to understand how climate risks are considered in their investment approach, and stewardship activities are being undertaken appropriately | 2A, 2B | Investment manager, underlying asset managers, Investment advisor | Ongoing |

## Strategy

| Activity | TCFD Pillar | Advisor / supplier support | Frequency of review |
|---|---|---|---|
| Identify climate-related risks and opportunities (over agreed time periods) for investment strategy and assess their likelihood and impact | 2A, 2B | Investment advisor / Investment manager | Annual |
| Climate scenario analysis - annual review for the continuing suitability of the results | 2C | Investment advisor / Investment manager | Annual |
| Climate scenario analysis - update modelling | 2C | Investment advisor / Investment manager | No less than triennial |

## Risk management

| Activity | TCFD Pillar | Advisor / supplier support | Frequency of review |
|---|---|---|---|
| Consider the prioritisation of those climate-related risks, and the management of the most significant in terms of potential loss and likelihood. | 2A, 2B, 3B | Investment advisor / Investment manager | Annual |
| Include consideration of climate-related risks in the MasterTrust's other risk processes and documents, such as the risk register and the SIP, and regularly review these | 3C | Advisors | Ongoing |

## Metrics and Targets

| Activity | TCFD Pillar | Advisor / supplier support | Frequency of review |
|---|---|---|---|
| Obtain data for metrics | 4A, 4B | Investment manager / Investment advisor | Annual |
| Review continued appropriateness of metrics | 4C | Investment manager / Investment advisor | Annual |
| Review targets | 4C | Investment manager / Investment advisor | Annual |

# Appendix 7 – Greenhouse gas emissions in more detail

Greenhouse gases in the atmosphere, including water vapour, carbon dioxide, methane, and nitrous oxide, keep the Earth's surface and atmosphere warm because they absorb sunlight and re-emit it as heat in all directions including back down to Earth. Adding more greenhouse gases to the atmosphere makes it even more effective at preventing heat from leaving the Earth's atmosphere.

Greenhouse gases are vital because they act like a blanket around the Earth making the climate habitable. The problem is that human activity is making the blanket "thicker". For example, when we burn coal, oil, and natural gas we send huge amounts of carbon dioxide into the air. When we destroy forests, the carbon stored in the trees escapes to the atmosphere. Other basic activities, such as raising cattle and planting rice, emit methane, nitrous oxide, and other greenhouse gases.

The amount of greenhouse gases in the atmosphere has significantly increased since the Industrial Revolution. The Kyoto Protocol[15] identifies six greenhouse gases which human activity is largely responsible for emitting. Of these six gases, human-made carbon dioxide is the biggest contributor to global warming.

Each greenhouse gas has a different global warming potential and persists for a different length of time in the atmosphere. Therefore, emissions are expressed as a carbon dioxide equivalent ($CO_2e$). This enables the different gases to be compared on a like-for-like bases, relative to one unit of carbon dioxide.

**Six main greenhouse gases identified by the Kyoto Protocol**

| Carbon dioxide | Methane | Nitrous oxide | Hydro-fluorocarbons | Per-fluorocarbons | Sulphur hexafluoride |
|---|---|---|---|---|---|
| $CO_2$ | $CH_4$ | $N_2O$ | HFCs | PFCs | $SF_6$ |

[15] https://unfccc.int/kyoto_protocol

Greenhouse gases are categorised into three types or 'scopes' by the Greenhouse Gas Protocol, the world's most used greenhouse gas accounting standard. The three scopes are described below:

## Scope 1

All direct emissions from the activities of an organisation which are under their control; these typically include emissions from an organisation's own buildings, facilities and vehicles

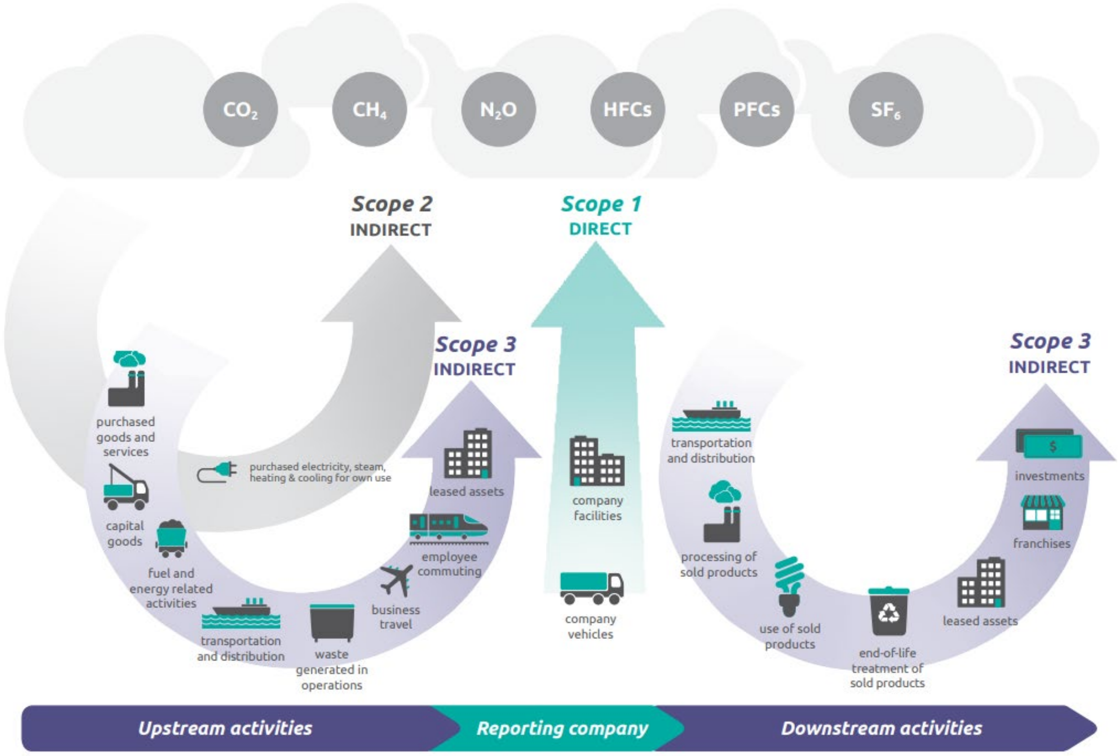
## Scope 2

These are the indirect emissions from the generation of electricity purchased and used by an organisation

## Scope 3

All other indirect emissions linked to the wider supply chain and activities of the organisation from outside its own operations – from the goods it purchases to the disposal of the products it sells.

**Overview of GHG Protocol scopes and emissions across the value chain**




Source: Greenhouse Gas Protocol, Corporate value chain (scope 3) Accounting and Reporting Standard, 2011

# Appendix 8 – Methodology and assumptions used to calculate climate metrics

We have established certain parameters and assumptions in order to standardise the data in a matter consistent with the regulatory guidance at the time of writing. For the sake of clarity, these are set out below.

1. The reported investments are based off our long physical positions, which exclude any short positions and synthetics / derivatives and include assets in the following categories:

    a. Public Equities: includes publicly traded equities, equity index funds, listed REITs and infrastructures,

    b. Public Credits: includes corporate bonds, asset-backed securities and credit funds,

    c. Sovereigns: includes sovereign and municipal bonds, and gilt-linked funds,

    d. Commercial Properties: includes our direct investments in Columbia Threadneedle

    e. Cash: includes physical cash, certificates of deposits, commercial papers, short-term liquidity funds and time deposits.

2. Physical cash holdings are assumed to have zero emissions associated with them. This excludes certificates of deposit, commercial paper, short-term liquidity fund holdings and time deposits.

3. Our investment manager has not derived carbon metrics attributed to our short positions and synthetics / derivatives due to the novelty of the topic and related discussions. Our investment has also not derived carbon metrics attributed to our allocation to gold, in line with current industry guidance.

4. In all instances, the latest available data has been used as available from MSCI and the sources as described below. This includes data from the base year (2019) up to the current reporting year (2024).

5. Total greenhouse gas emissions are calculated as the MasterTrust's share of the greenhouse gas emissions for each underlying company / entity. This is calculated as the value invested (£ million) in each company / entity, divided by the Enterprise Value Including Cash (EVIC) for each company / entity. EVIC represents the total value of a company, based on both its equity (measured by total market capitalisation for both common and preferred shares) and debt (measured by the market value of outstanding debt in issuance). Cash and cash equivalents on the balance sheet are also included in this figure. This is calculated separately for each default strategy.

6. For sovereign bonds, total greenhouse gas emissions are calculated as the MasterTrust's share of the greenhouse gas emissions for each underlying country. This is calculated as the value invested (£ million) in sovereign bonds of each country, divided by the Purchasing Power Parity adjusted Gross Domestic Product (GDP) for each country.

7. Carbon footprint is calculated as the total greenhouse gas emissions of each asset class used in the default strategy within the MasterTrust (as calculated in note 1 and 2 above), divided by the current value invested in each asset class used in each default strategy for which greenhouse gas emissions data is available.

8. Greenhouse gas emissions are a mixture of emissions reported by the underlying companies / entities and estimated emissions, as provided by MSCI. There are some asset classes, e.g., commercial

property, where MSCI does not have oversight of such data. As far as practicable, our investment manager has sourced the emissions data from the underlying investment managers and / or relied on published estimation methodologies to derive the related figures. These are discussed in detail in the notes below. Furthermore, it should be noted that estimated emissions will vary by data provider. For equities and corporate bonds most of the emissions data is reported emissions, with a smaller proportion relating to estimated emissions. Emissions data for sovereign bonds are estimated.

9. For our sovereign bonds, our investment manager has obtained estimated scope 1 and 2 greenhouse gas emissions and GDP data for the 12-month periods ending 31 December 2024, 31 December 2023, 31 December 2022, 31 December 2021 and 31 December 2019 from the following sources:
    a. Emission data from the Emissions Database for Global Atmospheric Research (EDGAR).
    b. PPP-adjusted GDP from the Organization for Economic Cooperation.
10. For commercial property, our investment manager has relied on greenhouse gas emissions data provided by the underlying property manager, Columbia Threadneedle Investments. We requested that this data be provided in line with the methodology established within the industry-standard Carbon Emissions Template reporting tool developed by a Joint PLSA / ABI / IA Working Group[16].
11. Reflecting the latest DWP and PCAF guidance we have not calculated nor disclosed greenhouse gas emissions for our gold allocation.
12. The proportion of companies with a SBTi aligned target has been obtained from MSCI and reflects the latest available data. Our investment manager has used the Net Zero Tracker dataset to identify those countries which have made a net-zero / zero carbon commitment.

[16] https://www.plsa.co.uk/Policy-and-Research/Document-library/Carbon-Emissions-Template