

# Our investment approach to climate change

Task Force on Climate-related Financial Disclosures 2023 Status Report

Mercer Investment Solutions  
August 2024



welcome to brighter

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## About this report

This report sets out in detail how Mercer Investment Solutions intends to fulfil the climate-related commitments made in the publicly available Sustainability Policy and manage climate-related financial risks and opportunities for the Mercer Funds, our suite of managed investment schemes.

Mercer's approach and disclosure, outlined in the following pages, is consistent with the framework recommended by the Financial Stability Board's Task Force on Climate-

related Financial Disclosures (the TCFD), which has become the industry standard globally. Disclosure consistent with the TCFD recommendations is encouraged for appointed investment managers.

Please note that climate reporting in relation to Mercer's operations is captured within Marsh McLennan, Mercer's parent entity, reporting globally. In addition, Marsh McLennan reports annual carbon emissions to CDP.

# Introduction

## About Mercer Investment Solutions (Mercer IS)

Mercer Investment Solutions (Mercer IS<sup>1</sup>) is a leading provider of investment solutions, offering customised guidance on investment decisions, risk management and investment monitoring services to a broad range of institutional investors, including pension funds, insurance companies, endowments, foundations and other investors.

Our purpose is to support clients in setting, implementing and monitoring their investment strategies through our investment solutions so they can meet their goals and fiduciary responsibilities. Management of climate risks and opportunities plays a key role in this regard.

This report sets out in detail how Mercer IS seeks to manage climate-related financial risks and considers climate-related investment opportunities for the Mercer Funds.<sup>2</sup> It is intended for current and prospective investors.

The Principles for Responsible Investment (the PRI), the world's leading proponent of responsible investment, provides the following introduction to climate change in the investor context:

**“Climate change will have significant physical and economic impacts on many different aspects of human activity, as identified by bodies including the Intergovernmental Panel on Climate Change (IPCC),<sup>3</sup> the IMF<sup>4</sup> and the Bank of England.<sup>5</sup> Climate change is a systemic issue which affects all asset types and sectors. As such, it will impact the portfolio returns, asset valuations and asset allocation processes of asset owners with diversified, global portfolios. It will provide new investment opportunities [...] Climate change also introduces new risk.”**

More information on the relevance of climate change, why it matters to investors, the science underpinning it and how asset owners can approach its effects can be found on the PRI website<sup>6</sup> in its introductory guide to climate change for asset owners.

Climate issues relating to Mercer's corporate operations are covered within Marsh McLennan's global sustainability reporting, available on the [Marsh McLennan website](#).

## About the Mercer Funds

Mercer IS is responsible for the Mercer Funds' design and implementation, including the investment objectives and allocations to different investment manager strategies, as well as monitoring and reporting. Our local Investment Solutions team draws on Mercer's global investment research, financial tools and advice.

Mercer IS does not select securities directly; we appoint and combine highly rated specialist sub-investment managers into funds (both multi-client and bespoke) and those funds into portfolios for certain clients. We provide a range of funds across equities, fixed income, passive solutions and alternatives.<sup>7</sup>

Mercer IS may also rely on third-party environmental, social and governance (ESG) research and data providers and their methodologies for implementing our approach to climate change; for example, by providing carbon-emissions data on portfolio companies.

## Our guiding framework

We aim to make our approach and disclosure consistent with the framework developed by the Financial Stability Board's Task Force on Climate-related Financial Disclosures (the TCFD),<sup>8</sup> while incorporating other standards, including the International Sustainability Standards Board (ISSB) Standards.

The TCFD recommendations are categorised into four key areas: governance, strategy, risk management, and metrics and targets.

Figure 1. TCFD framework



### Governance

The organisation's governance around climate-related risks and opportunities

### Strategy

The actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning

### Risk management

The processes used by the organisation to identify, assess and manage climate-related risks

### Metrics and targets

The metrics and targets used to assess and manage relevant climate-related risks and opportunities



## Message from the Chief Investment Officer



**Climate change and consideration of its investment implications has been referred to in Mercer's global investment philosophy since 2018: We recognise climate change is a systemic risk and that limiting global average temperatures to well below 2°C<sup>9</sup> is likely aligned to the best financial outcomes for long-term diversified investors.**

In 2021, Mercer announced its aim to achieve net-zero absolute portfolio carbon emissions by 2050 for UK, European and Asian discretionary portfolios and for the majority of its multi-client, multi-asset funds domiciled in Ireland (Net Zero Target). Mercer also established an expectation that portfolio carbon emissions intensity would reduce by 45% by 2030 from 2020 baseline levels.<sup>10</sup> This target setting relies on some key assumptions as outlined in Metrics and Targets on page 25.

Our climate-related investment philosophy, policy, target and action plan have been informed by a range of research and analysis:

- Mercer's climate transition framework and Analytics for Climate Transition (ACT) tool
- Ortec Finance ClimateMAPS research
- Institutional Investor Group on Climate Change Net Zero Investment Framework
- Mercer's recent 2023 *Transition Today* and 2024 *State of the Transition* papers
- Mercer's 2015 and 2019 *Investing in a Time of Climate Change* reports<sup>11</sup>
- Mercer's long history of research on climate change and its implications for strategic asset allocation

Mercer continues to evolve its thinking and how it incorporates climate-related risks and opportunities within its investment decision-making processes and across the Mercer Funds.

### Key recent activities include:

- Continuing to implement climate-related governance, including commencing a sustainability policy review, and sustainable investment (SI) considerations, including climate change, in broader reviews of governance and committee structures
- Applying Mercer's latest global Climate Analysis Scenario Tool (CAST) to a range of Mercer IS diversified portfolios in 2022 to inform our climate and broader investment strategy into 2023 and beyond
- Building on our climate risk management approach through ongoing and enhanced analysis and engagement across a range of climate risks and opportunities, including fossil fuel reserves, investments in contributors to climate solutions and emissions monitoring
- Enhancing the sustainability characteristics of a substantial portion of funds and solutions to further promote environmental characteristics in line with the Sustainable Finance Disclosure Regulations (SFDR)
- Actively monitoring and engaging with appointed managers on how climate considerations are incorporated into the investment process and across their engagement and voting activities with underlying companies and other relevant stakeholders
- Introducing a range of new climate-related metrics to our ongoing monitoring, such as physical risks metrics, and continuing to track progress towards our Net Zero Target and associated climate transition plan  
**(Climate Transition Plan)**

We're mindful that we are early on our long-term journey towards meeting our Net Zero Target while also keeping our 2030 expectations in sight and navigating short-term transition-risk volatility, particularly in the current market environment. We'll review and publish this document as necessary to keep our stakeholders updated about how our approach and Climate Transition Plan are evolving.

Ultimately, we believe that for true success, all players in the economic ecosystem need to play their parts. Collaboration will become more critical. We'll engage with industry, regulators, lawmakers and other bodies to inform our investment strategies and solutions as we seek to decarbonise in accordance with our targets while still meeting investment objectives.

We hope this report gives our investors and stakeholders confidence that we continue to thoughtfully incorporate climate-related financial risk and opportunity considerations into our investment processes and decision-making.



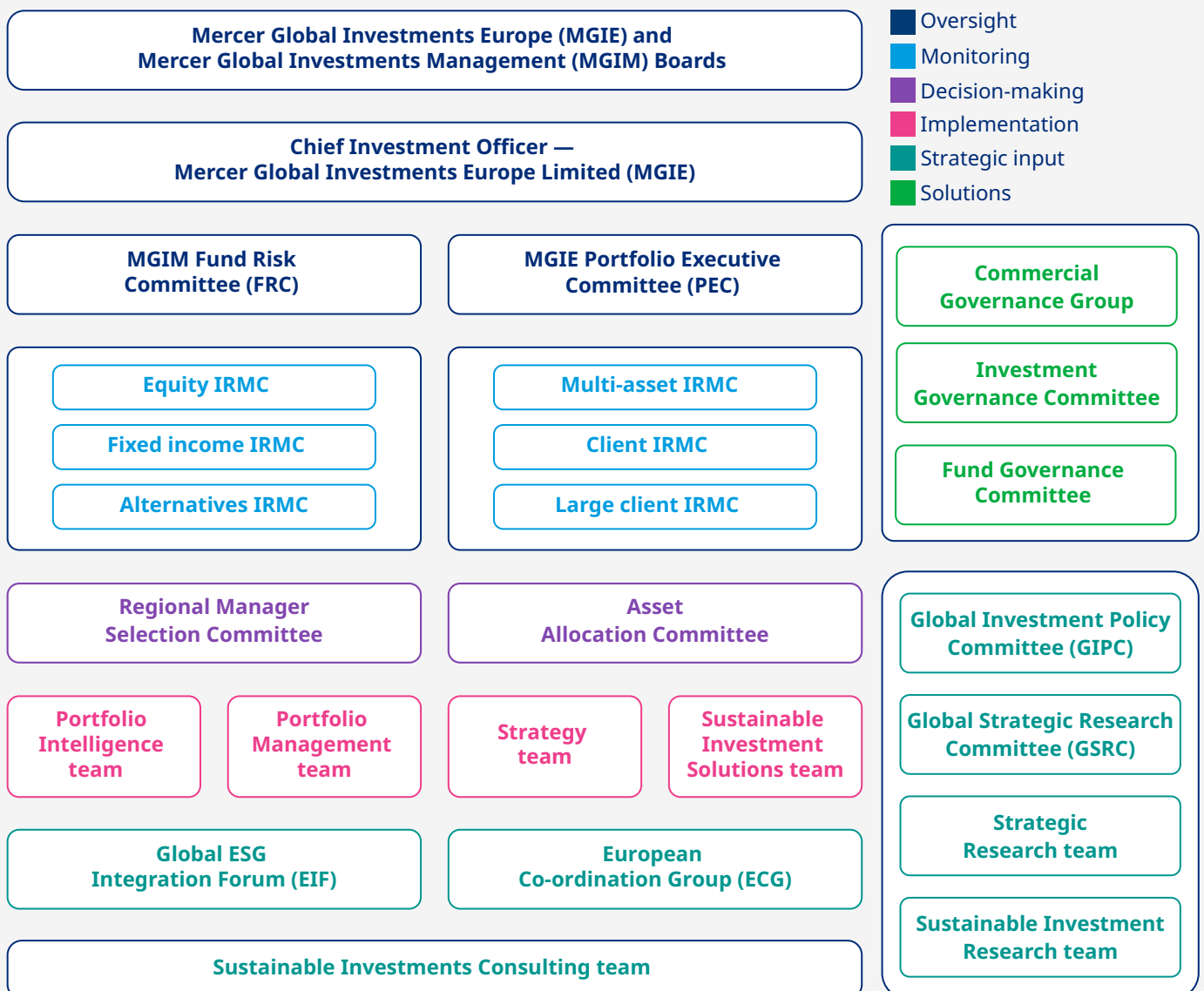
**David O'Sullivan**  
Chief Investment Officer  
Mercer Global Investments Europe Ltd.

# Governance

Mercer IS has established a robust sustainable investment governance structure. It allocates responsibilities at board and management levels, including inputs and oversight from Mercer global investment leadership and integration responsibilities across the organisation. Our team

has proven experience in sustainable investment, supporting Mercer's climate-related policies and targets while continuing to meet client or fund investment objectives.

**Figure 2. Climate change governance structure**



## Sustainability policy

Mercer's global investment philosophy recognises that:

- Portfolio resilience can be enhanced by integrating financially material sustainability, transition and socioeconomic risks into investment decision-making.
- Investing to solve long-term systemic issues may provide opportunities to improve risk-adjusted returns.
- Effective stewardship can improve investment outcomes.

Mercer applies each of these three lenses when considering climate change. Climate change is a widely recognised systemic risk, and we assess the transition to a low-carbon economy and the physical damages associated with global temperature increases via our climate scenarios analysis and Analytics for Climate Transition (ACT) tool, which evaluates the alignment of portfolios to the low-carbon transition. Climate change has been identified as one of our priorities from a stewardship perspective.

Our Sustainability Policy plays an important role in establishing how we translate and achieve our sustainable investment philosophy. Consistent with our commitment to achieving the Net Zero Target, this now includes a dedicated section on climate change that outlines a summary of our Climate Transition Plan.





Our Climate Transition Plan aims for:

- An approach to decarbonisation that is broadly aligned with the well-below-2°C commitment within the Paris Agreement<sup>12</sup> but which also accounts for the transition in the real economy and understands the different transition capacities by asset class given liquidity and sector exposures

- A reduction in atmospheric carbon emissions, not just portfolio carbon emissions, currently measured by portfolio-weighted average carbon intensity (typically referred to as WACI<sup>13</sup>)

We integrate climate-change considerations into our investment processes for the Mercer Funds. We have three key implementation approaches where relevant and consistent with stated investment objectives — the three pillars of our approach:

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### Integration

Incorporating climate-risk metrics and scenario analysis in investment management processes to help inform strategic asset allocation modelling and strategy allocations within asset classes and monitoring

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### Active ownership

Engaging on climate-related topics — for example, high-emitting companies and their decarbonisation targets and implementation plans — primarily via our appointed investment managers and through participation in collaborative initiatives (engagement is preferred over an exclusions approach as we expect this has a greater probability of supporting real-world emissions reductions, not just portfolio reduction)

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### Sustainability-themed investment

Including exposure to investment managers that identify longer-term environmental and social themes and seek to invest in companies delivering solutions to environmental and social challenges

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**Note:** Active ownership (sometimes termed “stewardship”) is an umbrella term for a wide range of activities. In the context of our climate-related activities covered in this report, we primarily mean our engagement with appointed investment managers and collaborative company engagement as described above. Our voting model outsources voting to appointed investment managers, and we expect investment managers to vote in a manner deemed most likely to protect and enhance long-term value.

Exclusions may also be used as an implementation tool where appropriate, but our overarching preference is for engagement over exclusions.

Broadly, our Sustainability Policy describes how we manage climate-change considerations across the Investment Solutions business and sets out our responsibilities. We will inform stakeholders about any new iterations of the Sustainability Policy whenever it is updated.

## Boards

The Mercer IS Boards [Mercer Global Investments Europe (MGIE) and Mercer Global Investment Management (MGIM) Boards, or “the Boards”] are responsible for ensuring effective governance of climate-related and broader sustainability risks and opportunities across the investment management process as highlighted in Mercer IS’s Sustainability Policy. More specifically, this includes overseeing the multi-client, multi-asset funds and discretionary model portfolios for which Mercer is targeting net-zero by 2050.

The Boards oversee Mercer IS’s approach by reviewing, at least annually, reporting from management, which is responsible for

overseeing the integration of climate-related and broader sustainability risks and opportunities into the investment-management process. Board members continue to develop their knowledge on climate-related risks and opportunities and how these may influence decisions concerning risk management, strategy setting, implementation and monitoring. These reviews include reporting that covers Mercer IS’s Climate Scenario Analysis results, progress towards its climate targets, and climate-transition risk-assessment results using multiple climate metrics, such as carbon emissions, transition capacity and exposure to green revenues. Please see more within the **Metrics and Targets** section.



## Management

MGIE Chief Investment Officer (CIO) David O’Sullivan is responsible for ensuring climate-related risks and opportunities are appropriately incorporated into the investment management process for the Irish-domiciled Mercer Funds. This is executed by setting clear expectations of, and providing clear direction to, those responsible for implementing climate-related considerations across the investment process.

The Sustainable Investment Solutions team (“SIS team”) works closely with Mercer’s dedicated Sustainable Investment consulting team (“SI team”) in defining its approach to broader sustainability and climate-related risks and opportunities by translating Mercer’s thought leadership and best practice into clear policies and processes for implementation within portfolios by various teams across the business. The SI team provides thought leadership and guidance to the SIS team and the CIO on best practice around climate-related risks and opportunities.

These policies and processes, and their application across portfolios, are captured in Mercer IS’s Sustainability Policy, which is approved by the CIO and the Boards.

The SIS team works closely with the Portfolio Management, Strategy and Portfolio Intelligence teams on the ongoing management and implementation of climate-related risks and

opportunities. The Portfolio Management team takes responsibility for ensuring climate and broader sustainability considerations are incorporated into Mercer’s investment management strategies, while the Asset Allocation Committee ensures strategic- and dynamic-asset-allocation decisions take climate-related risks and opportunities into account. This team’s mandate is to ensure climate and broader sustainability considerations are incorporated into the portfolio construction process of multi-asset funds and multi-asset portfolios. The building blocks are predominantly Mercer Funds, although third-party funds are used in some cases. The Portfolio Intelligence team supports each of these teams and decision-making committees with data and analytics related to climate factors.

The Portfolio Executive Committee (PEC), chaired by David O’Sullivan, consists of senior members from the Portfolio Management and SIS teams. The PEC oversees Mercer IS’s key regulatory responsibilities, including ratifying the Sustainability Policy.

The various MGIE Investment Risk Management Committees (IRMCs) and the MGIM’s Fund Risk Committee provide quarterly monitoring of the relevant climate-related risk metrics. This includes tracking progress towards our net-zero commitment as well as other climate-related metrics aligned with sustainability characteristics we’ve committed to promoting and considering under the SFDR.



## Global team of specialists

David O'Sullivan has the support of Regional CIO Garvan McCarthy and Global CIO Hooman Kaveh, who ensure that climate-related considerations are captured and monitored for developments within investment decisions in regional and Global CIO and Governance Committee meetings.

The Global ESG Integration Forum (EIF), which evolved from the previous Global ESG Integration Committee formed in 2018, meets quarterly to coordinate Mercer IS's global approach to investing more sustainably. The EIF oversees and coordinates the approach to integrating climate-related risks and opportunities within the regional Investment Solutions practices and ensures Mercer's best thinking on climate risks and opportunities is integrated into sustainability policies and practices, aiming for global consistency where possible. The EIF includes representatives from Mercer's IS and SI consulting teams in the Pacific, Europe and North America.

The SI team works closely with the various research groups. These groups provide strategic input through thought leadership and guidance on integrating climate-related risks and opportunities across asset classes as well as insights on sustainability-themed strategies (including climate, biodiversity and natural capital). The Global CIO group is also informed by Mercer's investment governance structure and research committees charged with reviewing and setting guidance on Mercer's intellectual capital development.





## Mercer IS colleagues

We provide ongoing employee training on sustainability-related risks and opportunities, including those related to climate. The SIS team, working closely with the SI team, regularly provides training to the business on a variety of sustainability-related topics. The SI team also includes semi-annual updates on “current topics” for clients.

Mercer launched a mandatory ESG, climate and sustainability training programme, which all colleagues globally are required to pass. Its aim is to provide a baseline understanding of:

1. What ESG, climate and sustainability is and what Mercer’s philosophy is
2. The relevance of ESG, climate and sustainability to Mercer’s clients
3. How to talk about ESG, climate and sustainability with clients
4. Mercer’s internal ESG, climate and sustainability governance framework, when and how to apply it, and the risks involved

In addition to this, Mercer’s parent company, Marsh McLennan, has released a climate self-guided training programme to its colleagues. This programme gathers insights from Marsh McLennan and beyond to help colleagues

- 1) understand the causes of climate change;
- 2) explain climate change’s economic and social impact;
- 3) describe global progress, challenges and opportunities in relation to climate issues; and
- 4) communicate why and how Marsh McLennan supports clients in this area.



Along with providing ongoing training, Mercer believes in encouraging a culture that promotes the consideration of sustainability factors across its broader business activities. We have adopted a [remuneration policy](#) consistent with promoting greater recognition of sustainability, including climate risks, across our activities. To achieve this, sustainability goals are included in all Mercer IS employee goals and objectives. All employees are expected to support the business in undertaking its activities in a responsible manner through the inclusion of sustainability considerations in their roles and decision-making processes. Employees involved in investment-decision-making activities are expected to implement the key principles embedded in our Sustainability Policy.

# Strategy

We believe investors should consider the potential financial impacts of both the associated transition to net zero and the physical impacts of different climate outcomes, and this informs our strategic response.

Where we act as the trustee or fiduciary manager and make investment decisions on behalf of our investors, our role in understanding and assessing the impacts of climate change on our investment portfolios — and how these may emerge over the investment horizon — is critical in determining how these are addressed in our investment strategies.

We address this through a top-down and bottom-up approach:

- Top-down is primarily informed by climate-scenario analysis.
- Bottom-up is primarily informed by our transition assessment tool and physical-risk assessment.

## Climate-scenario analysis

We've carried out climate-scenario analysis specifically for the purpose of evaluating potential strategic asset allocation implications for key portfolios against various temperature-increase scenarios. The aim is to identify potential climate-related risks and opportunities based on several variables, including different investment portfolios, timeframes and scenarios, in support of a strategic approach to climate change for portfolios.

We've carried out analysis on the strategic asset allocations (SAA) for our key model portfolios, selected by assets under management, and on an SAA range to illustrate potential implications under the three different scenarios outlined below. The latest analysis was based on the SAA of the reviewed portfolios as at 31 December 2021 and used asset class assumptions rather than actual fund-holding data. We will be refreshing this analysis later this

year ahead of our next *Investment Approach to Climate Change* report.

Our analysis uses the following three core (hypothetical) scenarios:

- **A rapid transition** — Average temperature increase of 1.5°C by 2100. Sudden divestments across multiple securities in 2025 to align portfolios to the Paris Agreement goals, which have disruptive effects on financial markets with sudden repricing followed by stranded assets and a sentiment shock. Following this shock, there is a partial recovery.
- **An orderly transition** — Average temperature increase of less than 2°C by 2100. Political and social organisations acting quickly and predictably to implement the recommendations of the Paris Agreement to limit global warming to well below 2°C. Transition impacts do occur but are relatively muted across the broad market.
- **A failed transition** — Average temperature increase above 4°C by 2100. The world fails to coordinate a transition to net zero and global warming exceeds 4°C above pre-industrial levels by 2100. Physical climate impacts cause large reductions in economic productivity and increasing impacts from extreme weather events, reflected in repricing events in the late 2020s and late 2030s.

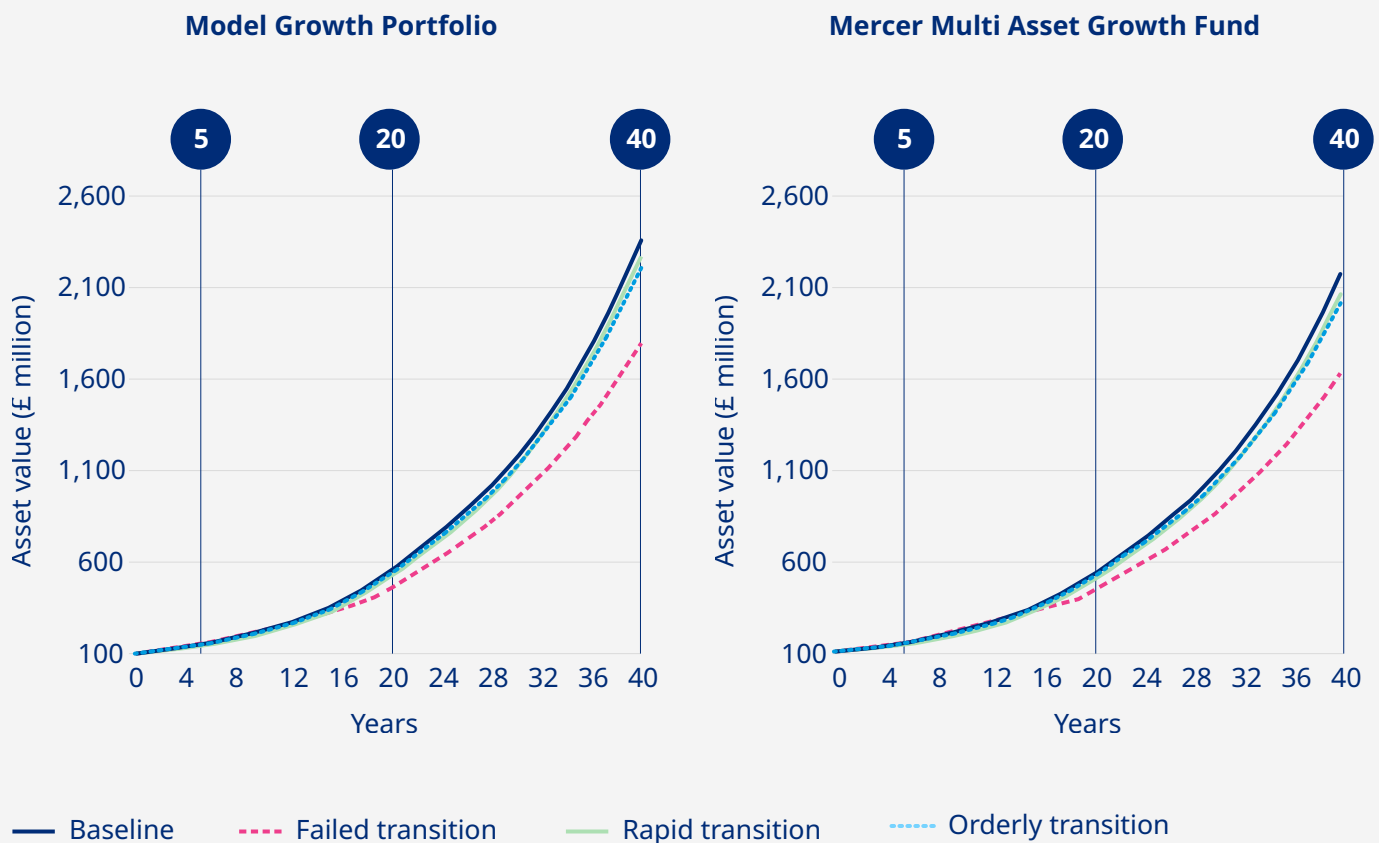
These scenarios are compared against a baseline that reflects Mercer's Capital Market Assumptions plus a weighted combination of the three climate scenarios. The weighting is Mercer's view on the scenarios that markets are anticipating and already pricing in. (The Appendix contains more information on this subject.)

Although every investor has a particular timeframe, the selected scenario modelling illustrates potential

impacts over a 40-year period. It includes the ability to review shorter periods; for example, five and 20 years. We expect the modelling to be most beneficial when it reflects typical investor time horizons as well as the longer outlook.

The below charts illustrate the five-, 20- and 40-year projection across each scenario.

**Figure 3. Asset value projection across three time frames and all transition scenarios**

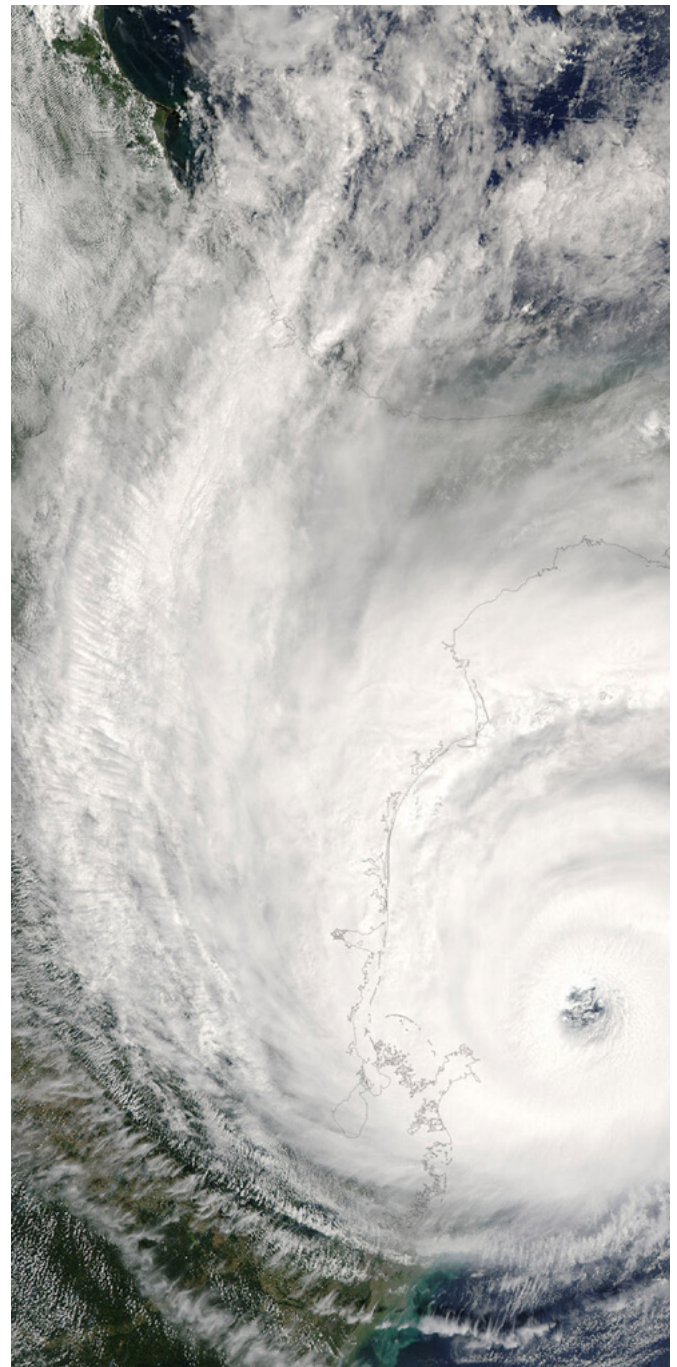


We can draw the following high-level conclusions:

- **Lower-temperature scenarios are expected to preserve asset values compared to scenarios associated with higher-temperature outcomes:**
  - An orderly transition may be marginally preferable for these example portfolios, but a rapid transition increases the probability of achieving a 1.5°C objective, which is expected to have lower physical risk than under higher-emissions scenarios. Portfolios can be positioned differently to perform better in a rapid-transition scenario, should that come to pass.
- **Sector exposure is key.** Differences in return impact are most visible at an industry-sector level, with significant divergence between scenarios, for example, in energy and utilities.
- **Regional analysis is important** for transition considerations as well as understanding physical risks over the long term. Overlaying country exposures with sector exposures provides additional insights.
- **Future pricing shocks are likely.** Longer-term impacts, including transition and physical risk, could impact portfolios before they occur. Although the exact timing of these shocks is unknown, considering them is beneficial for risk analysis.

Scenario analysis remains an important reminder that isolating a preferred scenario does not mean it will transpire. Complex system changes are at play that may prevent accurate modelling and are unlikely to be linear or neat. We also appreciate that while investors have an influential role to play, they do not have direct control over government policies or investee company decisions.

Scenario analysis helps to set the potential context, with the complementary bottom-up assessments important for monitoring and responding to scenario likelihood over shorter time periods.





## Our strategic response

Our internally developed and managed diversified portfolios are invested in a range of asset classes by our appointed investment managers.

The table below provides examples of the climate-related impacts that could have a material financial impact in some of the asset classes we invest in.

Asset class	Impact of climate change on asset class
<b>Equity</b>	<p>Climate-related impacts in equities are those that have the potential to affect either the profitability or overall value of a company.</p> <p>For example, changing regulations that restrict carbon emissions poses transition risks to companies with emissions exposures through increased operational costs. Companies can also face shifts in consumer preferences and demand, which can impact company revenue.</p> <p>However, the transition to net zero can also create opportunities, such as for companies that are developing new technologies like renewable energy assets that will replace traditional, more carbon-intensive solutions.</p> <p>Companies may also be exposed to physical risks with financial impacts, such as damage to property and equipment during stronger storm and cyclone events or reduced access to primary inputs like water if there is less rainfall. This can lead to higher insurance premiums and capital costs or even an inability to insure against the risks.</p>
<b>Fixed income</b>	<p>The impact of climate change on fixed-income investments, through corporate and government-issued bonds, differs from shares.</p> <p>The most likely risk in fixed income comes from the default risk of the issuer — the possibility that they will be unable to return the money the investor gave them or pay the investor the promised interest. Investors should always assess the potential impacts that may affect an issuer's ability to fund any interest payments and repay the initial capital.</p> <p>As fixed-income investments generally have a fixed term, climate-related impacts may be considered over a more defined timeframe.</p> <p>In addition, climate-related opportunities have appeared through green bonds and climate bonds, which fund low-carbon and renewable-energy developments. Issuers can benefit from the growing investor appetite for these bonds and diversify their investor base.</p>

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**Asset class**
**Impact of climate change on asset class**


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**Real assets**

The focus on asset investment means there is greater exposure to the physical impacts of climate change compared to other asset classes. For example, the growing frequency and severity of extreme weather events can leave assets in certain geographies increasingly exposed to the physical impacts of climate change, such as extreme heat or rising sea levels.

Real assets investors, whether asset owners or investment managers, may also be exposed to regulatory actions designed to reduce carbon emissions and influence consumer behaviour. They may also face client and public pressure to take a clear and systematic approach to emissions reductions and resilience preparedness.

In transitioning the global economy toward net zero, climate-related opportunities arise from things like renewable energy infrastructure, climate-resilient and/or “green property” assets, and carbon sequestration and nature-positive developments in forestry/farmland. These provide investors with improved resiliency to climate-related impacts.

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**What is Mercer IS's strategic response?**


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Mercer IS considers climate-related impacts in the investment process across three pillars:

- **Integration:** We seek to incorporate climate-change considerations into key investment-decision-making processes and endeavour to ensure the impacts are considered in a “business as usual” manner. Importantly, this does not result in a specific, fixed weight given to climate considerations in these processes. We integrate climate-specific considerations into strategic asset allocations for diversified funds and investment manager selection as well as our appointment and monitoring processes. We do this by leveraging internal research and analysis [such as Mercer’s Climate Scenario Analysis, the Analytics for Climate Transition (ACT) tool and Mercer’s global *Manager Sustainability and Stewardship Survey (Manager Survey)* responses and ESG Ratings] to provide insights alongside financial and investment-related information. The relevance of this may change dependent on the asset class and the investment strategy. There are some asset classes and investment strategies for which climate-specific considerations have greater or lesser relevance (for example, listed equities and cash, respectively). This may be due to the accuracy and quality of climate-related information available and/or the availability and effectiveness of mechanisms that can be used to identify, assess and act on climate-related information.
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## What is Mercer IS's strategic response?

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- **Active ownership:** As a multi-manager, Mercer IS's approach to active ownership is driven by engagements with our appointed investment managers. Climate-related engagement with investment managers occurs across the spectrum of sustainability-related investment activities, from investment manager monitoring to voting, exclusions and thought leadership. Alongside this, we also take part in relevant collaborative initiatives. We believe these approaches can help drive real-world decarbonisation by supporting progress in climate policy and regulatory responses and transition changes in high-emitting companies:
  - Select manager engagement is undertaken by the relevant portfolio managers and analysts on our Investment Management team and may be in conjunction with our SI specialists, where climate change will be given a greater strategic focus. This process is more likely to occur in cases where a manager has higher exposures to companies with a greater chance of being impacted by climate-related risks; for example, as determined by integration analytics. Our specialists will leverage manager research views and answers to the *Manager Survey* climate-change questions to seek improvements in how managers are allocating to and engaging with investee companies.
  - Collaborative engagement refers to our involvement via initiatives such as the Institutional Investors Group on Climate Change (IIGCC) and Climate Action 100+. These initiatives are aimed at climate policy advocacy as well as engagement with the highest emitting companies.
- **Sustainability-themed investing:** Mercer IS considers how investment managers are approaching specific themes, including climate transition and adaptation, in their idea-generation, stock-selection, or portfolio-construction processes. Allocation to these strategies occurs primarily through sustainability-themed equity, credit and listed infrastructure strategies. For some equity and listed infrastructure strategies, there are specific alignment provisions and/or climate-related restrictions in the investment manager agreement.

You can read more about our actions against these pillars in the **Risk Management** section of this report.

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# Risk management

Mercer IS expects its appointed investment managers to assess and reflect ESG factors (including climate-related risks and opportunities) when they select securities or assets and construct portfolios. We understand that the degree of relevance or materiality varies across asset classes and the type of investment strategy, but our role is to monitor these risks and opportunities across our relevant holdings, using systematic frameworks to inform broader investment-decision making processes. We continue to monitor appointed managers' unique approaches, engaging with them to seek improvements where appropriate.

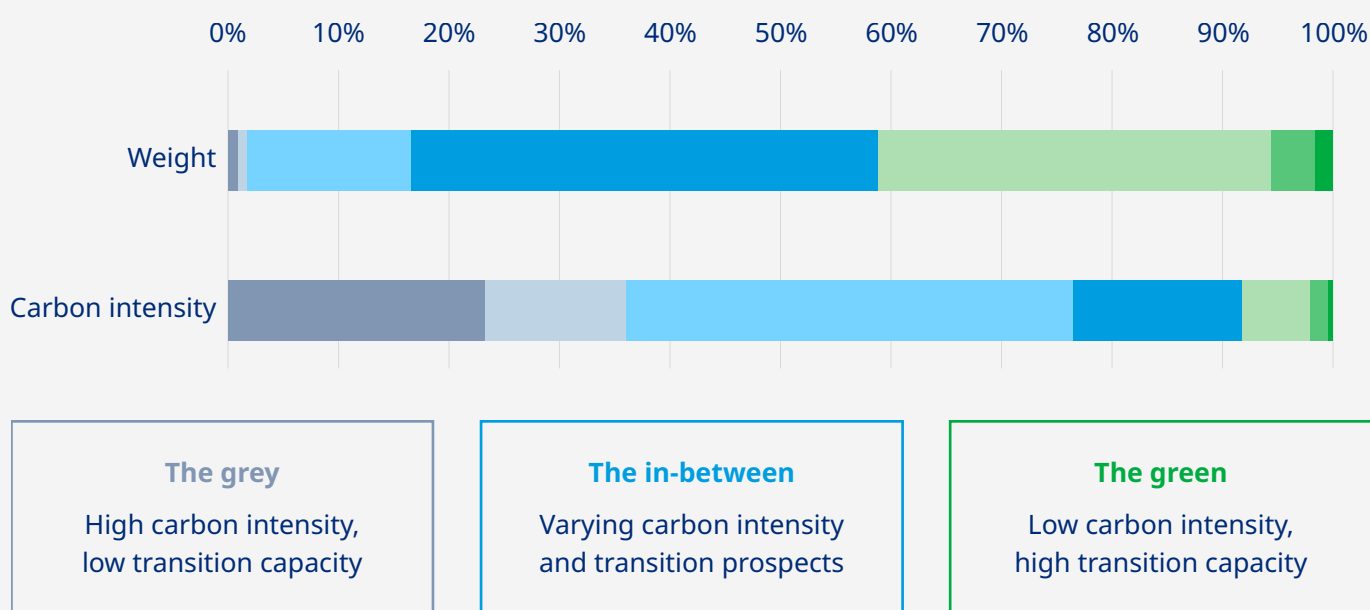
For Mercer Funds, climate-related risk is addressed primarily through the Integration and Active Ownership channels as shown in the Key Actions table below and throughout this report.

## Informing risk management

Top-down climate scenario analysis<sup>14</sup> is the framework we use to assess the size and scope of potential climate-related return impacts in a range of future scenario outcomes. This framework seeks to inform the asset class and industry sector considerations to minimise risks and maximise new opportunities. This is complemented by bottom-up company and asset-level analysis generated by Mercer's ACT tool,<sup>15</sup> which provides a company-level perspective across relevant asset classes on a well-below-2°C or transition scenario. You can find more details about the methodology and framework in **Appendix C**.





**Figure 4. Transition assessment: Example diversified portfolio**

Source: Mercer, with underlying metrics from MSCI ESG Research and ISS.

The ACT tool has helped us identify where the highest carbon-intensity and transition capacity risks lie in our portfolios, including the potential for stranded-asset risk in the high emissions intensity/ low transition capacity ("dark grey" companies), and where emissions reductions can best be achieved by portfolio weight while still meeting investment objectives.

Company-level categorisation helps in comparing different portfolios and benchmarks within asset classes as well as asset-class impacts to adopt a thorough risk management approach to an economy- and portfolio-wide transition using the proxy insights from our assessable portfolios. (These generally comprise more than 75% of our total key portfolios.)

You can see the key outputs from our analysis in the **Metrics and Targets** section.

We seek to ensure our established frameworks and processes meet existing and anticipated regulatory requirements. We also keep up to date on climate change regulation and industry developments through relevant industry working groups, such as the IIGCC, industry conferences, and associated research and briefing.

## Taking action to manage risks

Our Climate Transition Plan provides a structure for climate-related risk management. The following table outlines some of the key actions we have taken as part of this plan. Actions are split across

three implementation pillars: Integration, Active Ownership and Sustainability-themed Investing. Through these pillars, we focus on a whole-of-economy and portfolio transition, not just portfolio emissions reduction.

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### Key actions

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#### Integration (risk reduction)

- **Informing investment-related decisions and monitoring:** Including climate-related analysis alongside traditional financial information during key investment decision-making and monitoring processes provides Mercer with a better understanding of potential impacts on its approach.
  - **Strategic asset allocation (SAA):** In SAA reviews of our key model portfolios, climate-related analysis is included for consideration as part of the process. Our multi-asset funds are well diversified across asset classes, sectors and geographies to manage risks, including climate-related risks. We evaluate model portfolios under various scenarios and assumptions to help make more informed SAA decisions and help clients set the best portfolio mixes for their long-term strategic goals and objectives. This is important for avoiding silo decisions and ensuring alignment at a total-portfolio level.
  - **Portfolio intelligence:** Risk exposures are evaluated for relevance and prioritisation through a specific asset-class lens, including regional and sector exposures. Climate-related analysis across asset classes, funds and managers is provided to inform our positioning (analysis is based on our primary climate analysis tools as well as other key metrics; for example, weighted average carbon intensity, or “WACI”).
  - **Appointed managers:** At the appointed manager level, we expect climate related risk assessment and risk reduction to be integrated into each strategy’s approach to investment decision-making and stewardship activities. Mercer works closely with its appointed managers to improve their ESG and climate change integration practices where required.
  - **Strengthening climate-related analysis:** Climate-related analysis is a critical part of our investment decision-making. We regularly monitor appropriate metrics, such as emission reduction targets and portfolio transition capabilities.
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## Key actions

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- Our primary climate analysis tools are:
    - **Climate Scenario Analysis:** This analysis specifically evaluates portfolios under scenarios for a 1.5°C (rapid transition), 1.8°C (orderly transition) and >4°C (failed transition) increase by 2100<sup>16</sup> and this information is distributed to key teams.
    - **Mercer's ACT tool:** The tool draws on multiple third-party metrics for company-level emissions and reserves, transition commitments and green revenues, and other UN SDG indicators to categorise companies from “grey” (high-carbon and low-transition investments) to “green” (those already low-/zero-carbon or with climate solutions). We share the results with our portfolio management teams to support manager engagement.
    - **Mercer's Manager Sustainability and Stewardship Survey (Manager Survey):** This goes to appointed investment managers globally, at individual strategy level, to monitor developments and support manager engagements. The results from the dedicated climate-change section provide insight into managers' policies, processes and activities, which — when combined with portfolio analytics — are used to inform engagements with managers.
  - **Integrating the Climate Transition Plan into investment processes and decision-making:**
    - **Net Zero Target:** Mercer has set a Net Zero Target based on insights gained from our ACT tool and advice framework. The Target, alongside our Climate Transition Plan, sets a clear firmwide position and provides a structured approach to delivery.
    - **Manager appointments:** Agreements are made with select appointed investment managers, based on materiality, for inclusion of transition management and emissions reductions and other climate analytics where relevant.
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## Active ownership (transition support)

- To date, climate-related company engagement has largely been undertaken via our investment managers as well as through the Climate Action 100+ collaborative engagement initiative. Key active-ownership activities with a risk management lens include:
    - **Regular manager meetings:** Regular meetings with appointed investment managers may include discussion of material ESG issues, such as climate-related impacts, as relevant to portfolio investments; that is, strategy carbon intensity, portfolio vulnerabilities and specific investment opportunities.
    - **Annual Manager Sustainability and Stewardship Survey:** This survey provides specific insights on how managers are addressing climate risks and opportunities that support manager monitoring and engagements.
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## Key actions

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- **Voting:** Although proxy voting responsibility is outsourced to equity managers, the SIS team carefully examines the voting activity annually to ensure alignment with our commitments on climate transition and long-term value creation. Mercer’s Stewardship Policy has evolved to now include voting expectations for managers, requiring them to review climate-related disclosures, challenge boards with inaction on climate change, and consider voting against directors not supportive of the climate transition. Mercer also encourages voting in favour of resolutions promoting climate-related disclosures and emission-reduction targets.
- **Collaborative initiatives:** Mercer is a supporter/signatory to the following climate-related initiatives:
  - Institutional Investors Group on Climate Change (IIGCC)
  - Task Force on Climate-related Financial Disclosures (TCFD)
  - Climate Action 100+ (CA100+)
  - Taskforce on Nature-related Financial Disclosures (TNFD Forum Member)
  - CDP
  - Transition Pathway Initiative (TPI)
  - Nature Action 100

These initiatives help us manage risk by providing insight into upcoming policy reviews, peer engagements and industry developments. Some of these initiatives, specifically CA100+, include direct company engagement to help drive better company-level climate-risk management and disclosure. Adopting a collaborative approach is generally deemed beneficial from both a resource-management and outcomes perspective for investors and companies rather than each investor approaching companies individually with different requests. This is illustrated in the consistent asks of high-emitting companies by the CA100+ Net Zero Company Benchmark report and the progress tracked in recent years.<sup>17</sup>

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## Sustainability-themed investing (opportunities)

- **Selection and monitoring process:** In addition to the climate-integration approaches set out above under **Integration**, the manager-selection and portfolio-construction decision process considers exposure to sustainability themes, including climate transition and adaptation themes. We also use Mercer’s investment manager ESG Ratings and associated analysis to evaluate manager capabilities and practices across all manager-selection decisions. These proprietary ESG Ratings include assessing how the manager is incorporating material ESG factors (including climate) into its evaluation of investments.
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## Key actions

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- **Solutions allocations:** Our investments in companies contributing to climate solutions<sup>18</sup> have primarily been in dedicated sustainability-themed listed equity, infrastructure and credit strategies, driven by investment manager and strategy selection. Our sustainability-themed listed equity and credit funds seek to have a higher allocation to strategies targeting solutions exposures relative to the broader market opportunity set. For some strategies, there are specific alignment provisions and/or climate-related restrictions in the investment manager agreements with appointed managers. We have recently launched a new actively managed sustainable listed infrastructure strategy to position our portfolios more effectively for the transition and fully incorporate sustainability themes throughout the portfolio-construction process. The new strategy is c. 50% less carbon intensive than the previous strategy, and our best-ideas Model Growth Portfolio carbon intensity saw an 11% reduction attributable to this strategy switch alone. The transition capacity of the new strategy, according to our ACT Tool, is significantly greater than the old strategy, with 21% more “green” asset exposure when compared to the old strategy as at 2023 year-end. There is also less potential stranded-asset risk associated with the solution, identified via “grey” asset exposures, which are 15% lower in the new solution.
  - **Climate-aware benchmarks:** A selection of our passively managed strategies track climate-aware benchmarks, such as Paris-aligned and Climate Transition benchmarks, as defined under the EU’s Benchmark Regulation. These benchmarks exclude certain activities, such as companies generating revenues >1% from coal and >10% from oil fuels,<sup>19</sup> as well as carbon-emission-reduction targets; for example, at least a 50% initial reduction for Paris-aligned benchmarks compared to the parent (Climate Transition benchmarks’ initial reduction is 30% versus parent). In some cases, the benchmarks also incorporate ESG tilting based on proprietary ESG scoring. We are exploring the broader use of climate-aware benchmarks to position our passive solutions more effectively for the transition to a low-carbon economy.
  - **Sustainable Finance Disclosure Regulation (SFDR):** We have implemented binding criteria that promote positive environmental and social characteristics for the majority of our multi-client mainstream asset class solutions and are disclosing under Article 8 of the SFDR for these approximately 60 funds. These commitments include, among other approaches, benchmark-relative WACI reductions, exclusions related to fossil fuel and the highest carbon-emitting activities, along with an enhanced UN Global Compact engagement and escalation framework.
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In addition to the above, where deemed necessary, we will consider the exclusion of companies based on their contributions to carbon emissions. Limited exclusions, focused on some of the most environmentally damaging sectors, have already been implemented in the majority of our multi-client equity and fixed-income solutions that disclose under Article 8 of the SFDR. We will regularly review the broadening of emissions-based exclusions through the application of our Sensitive Topics Framework, evolved from our Exclusions Framework established in 2018, which supports our decision-making process globally and is applied on a regional basis.

## Integration of climate into our overall risk management process

Mercer IS adopts the Enterprise Risk Management (ERM) Framework across all group functions to support Mercer IS's risk management objectives and policies. The ERM Framework establishes the governance arrangements and the principles of how risk is to be identified, assessed, managed, monitored and reported. The ERM Framework provides a basis that supports the realisation of strategy in a sustainable way, within limitations set out in the risk-appetite statement. Sustainability risk, including climate risk, forms part of this framework. A sustainability materiality assessment methodology is applied to current risk registers to identify ESG risks in Mercer IS's risk environment.

Risks are regularly assessed as part of the ERM process and particularly through the periodic risk register process and presentations by risk owners to the Executive Risk Committee (ERC), which is chaired by the MGIE chief operations officer and meets monthly. The ERC assists the Board Risk Committee (BRC), a sub-committee of the board, and the board in its responsibilities to ensure risks are appropriately identified, assessed and managed.



Mercer IS's strategy is to integrate ESG risks into governance structures, establishing clear working procedures and responsibilities for business lines, internal control functions, the relevant committee(s) and management body, with a view to ensuring a sound and comprehensive approach to the incorporation of ESG risks into business strategy, business processes and risk management.

The Risk and Compliance team, as the second line of control, has embedded sustainability in its monitoring framework and provides oversight of the various sustainability-related commitments made by Mercer IS within its Sustainability Policy. This includes commitments addressing climate risks. The team conducts an annual review of controls in place to ensure sustainability and climate-related policy commitments are carried out and provides a summary of findings to the BRC.

# Metrics and targets

Climate-related metrics help us understand fund exposures and opportunities. We identify areas for further risk management, including appointed manager portfolio monitoring. These metrics also inform active ownership priorities and are essential for monitoring progress towards our climate targets.

We know the availability of accurate data for some asset classes is an industry-wide issue. We encourage our investment managers and the underlying companies in which they invest to improve their climate (and carbon) reporting as quickly as reasonably possible.

## Climate targets

In 2021, we set our Net Zero Target for absolute portfolio carbon emissions by 2050 for our discretionary model portfolios and multi-asset, multi-client funds on behalf of our UK, Europe, Asia and Pacific client bases. To achieve this, we expect to reduce portfolio carbon emission intensity by 45% by 2030 from 2020 baseline levels. This target is applicable to all listed equities and corporate fixed income holdings held in our discretionary model portfolios and multi-asset, multi-client Funds.

When the goal was originally set, the 2050 Net Zero Target was consistent with targeting a well-below-2°C limit on global temperature increases and the broader Paris Agreement ambitions for a 1.5°C warming scenario with no or limited overshoot. Although we continue to view our current Climate Transition Plan and interim expectations as broadly aligned with this objective, we also recognise greater reductions may become required more quickly in future to maintain that alignment status.

## Progress against the Net Zero Target

Climate-related metrics help Mercer IS understand fund exposures and opportunities and identify areas for further risk management, including appointed manager portfolio monitoring and informing stewardship priorities.

For the purposes of this report, we will focus on the progress of our four core portfolios, where the majority of our clients' assets are invested. There are numerous other portfolios and Funds in scope of the Target, all but one of which are either on track or well ahead of where they need to be at this stage of the journey.

WACI is the most widely used metric to assess carbon risk for portfolios and make comparisons across assets. WACI is the measure of portfolio exposure to companies' carbon emissions, measured by emissions (tCO<sub>2</sub>e) per million US dollars of revenue.

Our progress for these four portfolios, as of 31 December 2023, is indicated below:

Portfolio	Status	Commentary
<b>Model Growth Portfolio</b>	Well ahead	<p>Up until the end of 2022, our predominantly actively managed Model Growth Portfolio was off track versus the required decarbonisation pathway. In early 2023, we launched the Mercer Sustainable Listed Infrastructure UCITS CCF and transitioned the majority of our delegated clients' active listed infrastructure exposures to the new fund. The new fund's carbon intensity is 50% lower than the original Mercer Global Listed Infrastructure Fund, and its transition capacity, as analysed using Mercer's ACT tool, is significantly higher. At portfolio level, this transition contributed to an 11% reduction in carbon intensity over the year. This has brought the Model Growth Portfolio back on track, having seen a 33% reduction since baseline, 26% of which was realised over 2023.</p> <p>One detractor to perceived progress, but an enhancement of accuracy, was new data covering the external pooled vehicles used in our Dynamic Asset Allocation tilts. The Asia high-yield strategy we use, in particular, has a relatively high carbon intensity. This additional information, while offsetting some carbon-intensity reductions achieved elsewhere in the portfolio, will enhance our decision-making going forward and provide us with a clearer, more accurate picture of the climate risks of our portfolios.</p>
<b>Mercer Multi Asset Growth Fund and Mercer Diversified Growth Fund</b>	Well ahead	<p>These Funds have significantly reduced their positions in high-yield credit, with a moderate reduction in building-block-strategy carbon intensity also contributing, driving most of the top-line multi-asset Fund-level carbon-intensity reductions seen across these two multi-asset funds.</p> <p>Listed infrastructure has a moderate allocation (7.5%) and is the strategy with the highest carbon intensity held within the Funds. Mercer changed the benchmark of the underlying building-block strategy to a Transition Pathway Initiative Climate Transition Index as part of SFDR Level 2 commitments during 2022. The new index is aligned with a 1.5°C or well below 2°C scenario, which will be key to driving Fund-level decarbonisation progress over time.</p> <p>There was a slight offset to progress due an increased allocation to emerging market equity (a relatively high carbon-intensive strategy) and the inclusion of the Asia high-yield new data coverage as with the Model Growth Portfolio above.</p>



Portfolio	Status	Commentary
<b>Mercer Diversified Retirement Fund</b>	Well ahead	<p>This Fund's main driver of topline carbon-intensity reduction over 2023 was a reduced allocation to US corporate bonds, a relatively high carbon-intensive asset class. During the year, the global credit strategy held in the fund restructured to become a pure active strategy (previously a blend of active and passive), and this resulted in a reduction in strategy carbon intensity of c. 19%.</p> <p>The higher allocation to emerging markets equity and improved data coverage for Asia high-yield have also played detracting roles in this Fund's decarbonisation trajectory.</p>

We have made positive progress towards reducing our total-portfolio-level carbon-intensity metrics versus baseline levels. The Model Growth Portfolio has reduced its carbon intensity 33% when compared to December 2019 and is on track to meet Mercer's 2030 reduction expectations, to be aligned with the recommended IPCC 1.5°C pathway to net zero by 2050 with no or limited overshoot. The Mercer Multi Asset Growth Fund and Mercer Diversified Growth Fund have reduced their carbon intensities by a greater magnitude (c. 40%) versus December 2019 baseline levels and are also well ahead of the recommended IPCC 1.5°C pathway. The Diversified Retirement Fund has already reduced its carbon intensity by the 2030 expectation of 45%.

Results will become more insightful as rolling multi-year outcomes can be tracked, particularly given high volatility in carbon intensities to date and as data coverage improves across asset classes.

### Key assumptions

The Net Zero Target is based on the belief that it is likely in the best long-term financial interests of clients and that short-term implementation can be achieved while still meeting diversified fund

objectives for clients. This target draws on current climate science, government policy responses internationally and the response by companies in the real economy.

This target relies upon several key assumptions, including:

- The prevalent climate science at the time the target was set, recommending a net-zero target date of 2050
- Mercer's Climate Scenario Analysis, undertaken three times since 2015, indicating that a 2°C or below scenario is in investors' best interests and that aligning with a transition scenario does not present additional long-term downside risk if another scenario eventuates
- The availability of sufficient investment strategies, solutions, asset-level climate data and industry frameworks that allow investors across asset classes to decarbonise while meeting investment objectives

- Our discussions with many investment managers about their ability to still deliver on investment objectives with these net-zero emissions-reduction considerations in mind
- A staged transition across different asset classes and strategies based on underlying sector exposures and liquidity considerations
- An expectation that governments will follow through on their own commitments to ensure the objectives of the Paris Agreement are met, including increasing the ambition of their nationally determined contributions

## Achieving net zero

The **Risk Management** section outlines how we manage climate-related impacts as part of the Climate Transition Plan. However, the table below explains specific examples relevant to our Plan across the three pillars.

Key actions	
<b>Integration</b>	<p>Monitoring metrics against the Net Zero Target and understanding the drivers for change; that is, market environment, asset allocation, strategy allocations and company-level change.</p> <p>Developing specific emissions reductions and other climate-related provisions for investment manager agreements. The development of this approach and the subsequent provisions was the result of extensive consultation and engagement with our internal Portfolio Management teams and relevant appointed investment managers, among others. Inclusion of climate-related provisions may be based on a range of factors, including materiality and the role of the strategy from a portfolio construction perspective; for example, our multi-client active equity strategies are required to have a carbon intensity 20% lower than benchmark over a three-year rolling period.</p>
<b>Active ownership</b>	<p>Engaging appointed investment managers on the approaches taken to integrate climate considerations in their investment processes, specifically via the annual <i>Manager Survey</i>. The most recent <i>Manager Survey</i> included questions on net-zero targets and monitoring metrics and further aimed to capture the connected roles that natural capital and biodiversity play with climate change.</p>

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### Key actions

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We have also built on company-level engagement via managers, with initial prioritisation based on several climate-related metrics, including emissions materiality and Mercer's ACT tool. Investment manager views on these identified companies' approaches to the transition and their engagement progress with company boards and management to encourage decarbonisation help inform next steps, which may include escalation through voting or potential divestment. We will look to develop this framework further, expanding the scope of metrics considered to include new data points related to the credibility of decarbonisation plans, such as fossil fuel reserves expansion. Prioritised companies will be refreshed iteratively based on engagement outcomes.

Together, these priorities will help develop the framework to conduct goal-orientated engagements as we work towards setting quantifiable stewardship targets.

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### Sustainability-themed investment

Monitoring fund-level exposure to contributors to climate solutions and continuing to consider the role this plays in our portfolio and Climate Transition Plan. We broadly expect the opportunities to continue to grow and our portfolio exposure to climate solutions to increase. However, this area is still evolving, and we intend to set targets when the industry is more aligned around common data, analysis approaches and relevant standards. We expect the emerging definitions and consistency with the EU's SFDR and Taxonomy Regulation will help to address this area.

Implementing significant changes to most of the underlying building-block funds of Mercer portfolios, particularly those with the highest emitters and lowest transition capacities (grey assets):

- We updated the benchmarks for two of our higher-emitting passive strategies to incorporate climate risk more effectively. Our passive listed infrastructure strategy now tracks a Transition Pathway Initiative benchmark and has reduced its carbon footprint by 43% since changing the benchmark index. Similarly, our passive low-volatility strategy now tracks a low-carbon benchmark and has reduced its carbon footprint by 69% since changing the benchmark index.
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### Key actions

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- We introduced certain carbon- and/or fossil-fuel-activity-based exclusions to the majority of our multi-client building-block strategies and set emissions reduction targets relative to benchmarks for in-scope active equity strategies (as mentioned previously in this report). These changes have positioned our clients for the transition to net-zero portfolio carbon emissions more effectively as can be seen by the reduction in grey (high carbon and low-transition capacity) asset exposure across key portfolios.
- We launched a new sustainable listed infrastructure strategy in 2023 and transitioned most of our delegated clients' active listed infrastructure allocations across. Preserving listed infrastructure asset class characteristics while aligning with our wider focus on climate transition, this actively managed Fund has an explicit focus on integrating the climate transition within the investment processes of appointed managers. This results in a material reduction in carbon intensity and higher exposure to renewables versus the benchmark. Future emissions reduction enablement expectations are significantly greater in the new solution given the strategy's focus on transition infrastructure investing.

All these changes aim to enhance the Funds' environmental and social characteristics in line with EU SFDR Article 8 disclosure requirements, positioning them more effectively for the upcoming transition to a low-carbon economy and further enabling progress towards our Net Zero Target.

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## Climate metrics

We currently report on the following emissions metrics in line with the TCFD framework, which we believe to be credible and easy-to-understand measures that are useful in decision-making. These climate-related metrics are detailed in **Appendix A: Metrics and Targets Analysis Results**.

**Absolute emissions** — This represents each company's reported or estimated greenhouse gas emissions, where available (includes Scope 1 and 2 emissions, with Scope 3 shown separately). Scope 1 emissions are those from sources owned or controlled by the company (for example, direct combustion of fuel from vehicles), whereas Scope 2 emissions are those caused by the generation of energy purchased by the company. Scope 3 emissions include emissions produced in the supply chain (upstream) and the distribution process (downstream). Because Scope 3 emissions can be challenging to measure reliably, we use only estimated datasets as calculated by MSCI as it allows for a consistent calculation methodology.

**Carbon footprint** — This measures the carbon emissions (in metric tons) per million US dollars invested for listed equity and corporate fixed income. We scale by size of investment to negate the effect of asset growth in the calculation of the financed emissions figures for effective tracking against a baseline over time. For sovereign debt, a country's production emissions are normalised by purchasing power-parity-adjusted gross domestic product (GDP) rather than sales to give a sovereign intensity metric.

**Weighted average carbon intensity (WACI)** — This is an alternative carbon-emission-intensity metric, which measures the carbon emissions (in metric tons) generated per million US dollars of sales for listed equities and corporate fixed income.

**Implied temperature rise** — This analyses the warming scenario with which the investment is aligned. Implied temperature rise is a forward-looking metric that helps infer the degree of portfolio alignment with the goals of the Paris Agreement (that is, limiting global warming to well below 2°C). We recognise that very few companies are currently aligned with net-zero pathways but that this will change as companies transition their business models.

**Science Based Target Initiative approved targets** — This represents the percentage of portfolio companies with approved net-zero decarbonisation targets assessed by the Science Based Targets Initiative (SBTi).

**Data quality** — This represents the percentage of the portfolio that has reported data, estimated data, verified data and not-covered data. This shows the share of the portfolio held at year-end for which climate-related metrics of an acceptable quality have been obtained. The share of the portfolio on which high-quality climate-related disclosures are taking place is a good indication of the integration of climate risk and opportunity in investor and asset manager decision-making.

**Climate value at risk** — This demonstrates the expected return contribution from changes arising in a 1.5°C scenario out to 2100. It is designed to provide a forward-looking and returns-based valuation assessment to measure climate-related risks and opportunities in an investment portfolio across top-down risks and opportunities (transition and physical exposures) and bottom-up risks and opportunities (policy/economic impacts and technology/company-specifics).

We disclose these metrics for the key portfolios in which our clients are invested in Appendix A. The methodologies for these metrics are also disclosed there, as is additional detail on physical damages risk assessments and climate solutions.

We produce regulatory product- and entity-level disclosures as required under the SFDR, which cover a broad set of sustainability-related metrics, including those relating to climate change. Please see our [Responsible Investment website](#) for further details.

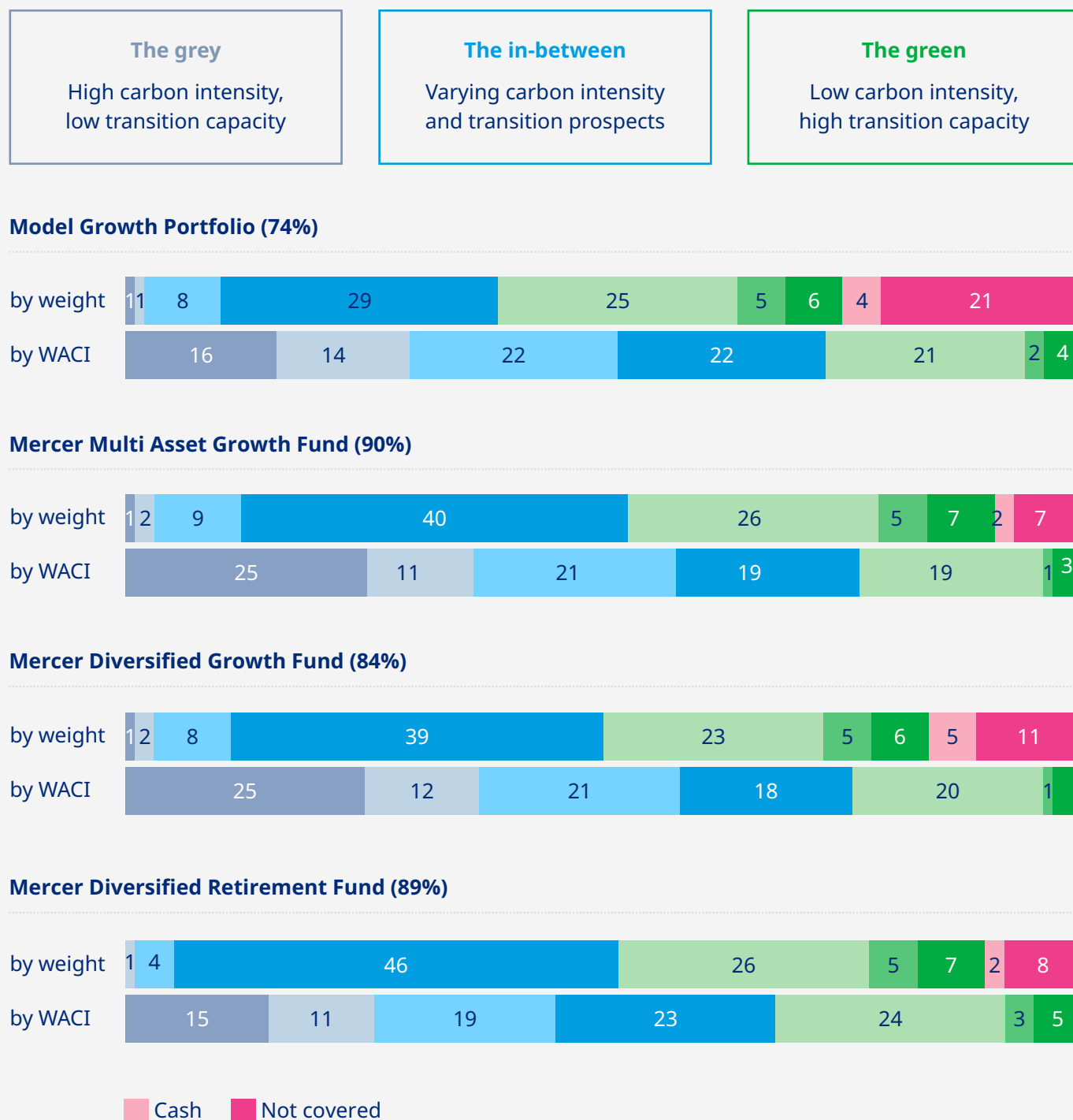
## Transition capacity

In addition to the metrics tracked and assessed above, we also focus on understanding the transition capacity of the Mercer Funds captured through Mercer's ACT tool. The tool aggregates multiple climate-related metrics to provide a forward-looking view of transition capacity on

a spectrum. Although it is not a single metric that can be monitored over time, it is proving to be beneficial for looking forward and assessing potential stranded-asset risk and identifying the most appropriate priorities for future emissions reductions.

Figures 5 and 6 show the climate transition assessment (using the ACT tool) for the *total assessable\** key portfolios as at 31 December 2023 (\*noting data coverage in brackets). These figures illustrate the oversized impact grey assets have on portfolio carbon intensity. The bars split "by weight" show the percentage of portfolio assets allocated to each category. The bars split "by WACI" show the contribution each category has to total portfolio WACI. For example, the Model Growth Portfolio has just 2% of portfolio assets allocated to grey assets, but those same assets are responsible for 30% of the portfolio's total carbon intensity.



**Figure 5. ACT analysis for key portfolios**

These carbon-intensive exposures are monitored regularly so we can manage and engage in line with our Climate Transition Plan. Focusing on dark-grey assets, a further breakdown by asset class reveals that Asia high-yield credit, emerging markets debt

and equities, and listed infrastructure are the greatest contributors to dark-grey-asset carbon intensities, whereas global equities, listed property and listed infrastructure contributed the most to green asset intensities.

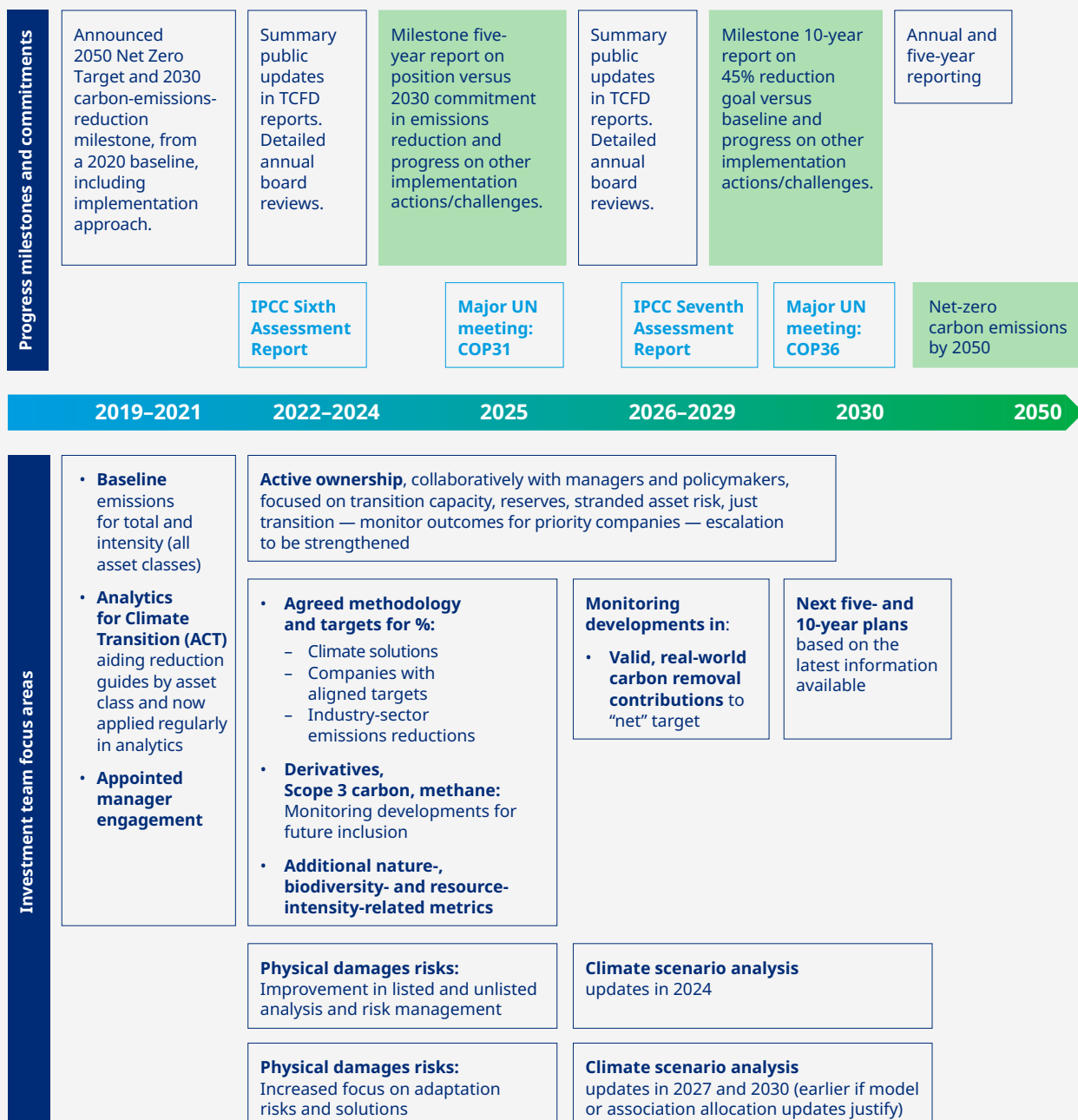
## Looking forward

We hope you found this report useful and informative. We are pleased with the progress we have made, but there is still much to be done.

The timeline below illustrates our key priorities over the short, medium and long term. As the industry and investor needs evolve, we will continue to advance our journey and frameworks.

Please contact your Mercer representative with any feedback or reach out with any questions.

**Figure 6. A roadmap to 2025 and 2030**



# Appendix A.

## Metrics and targets —

## Analysis results

### Climate-related metrics

We show the climate-related metrics for the four key portfolios in which the majority of our clients are invested. Non-emissions-based metrics are shown separately on page 45.

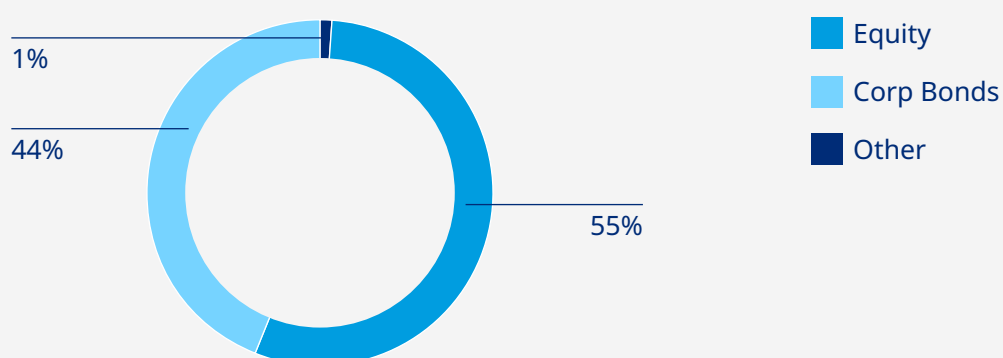
#### Model Growth Portfolio — Emissions-based metrics

Scope 1+2 emissions	% of total portfolio	Absolute emissions (tCO <sub>2</sub> e) Corporate assets		Carbon footprint (tCO <sub>2</sub> e/\$m invested)		Weighted average carbon intensity (tCO <sub>2</sub> e/\$m revenue)		Absolute emissions (tCO <sub>2</sub> e) Sovereign assets	Sovereign intensity (tCO <sub>2</sub> e production emissions/\$m PPP-adjusted GDP)	
				Coverage	Metric	Coverage	Metric		Coverage	Metric
Total portfolio	100%	70,342		83%	66	86%	152	85,136	97%	374
Scope 3 emissions		Upstream Downstream		Upstream Downstream		Upstream Downstream				
Total corporate portfolio	69%	142,247	294,902	91	189	206	590			

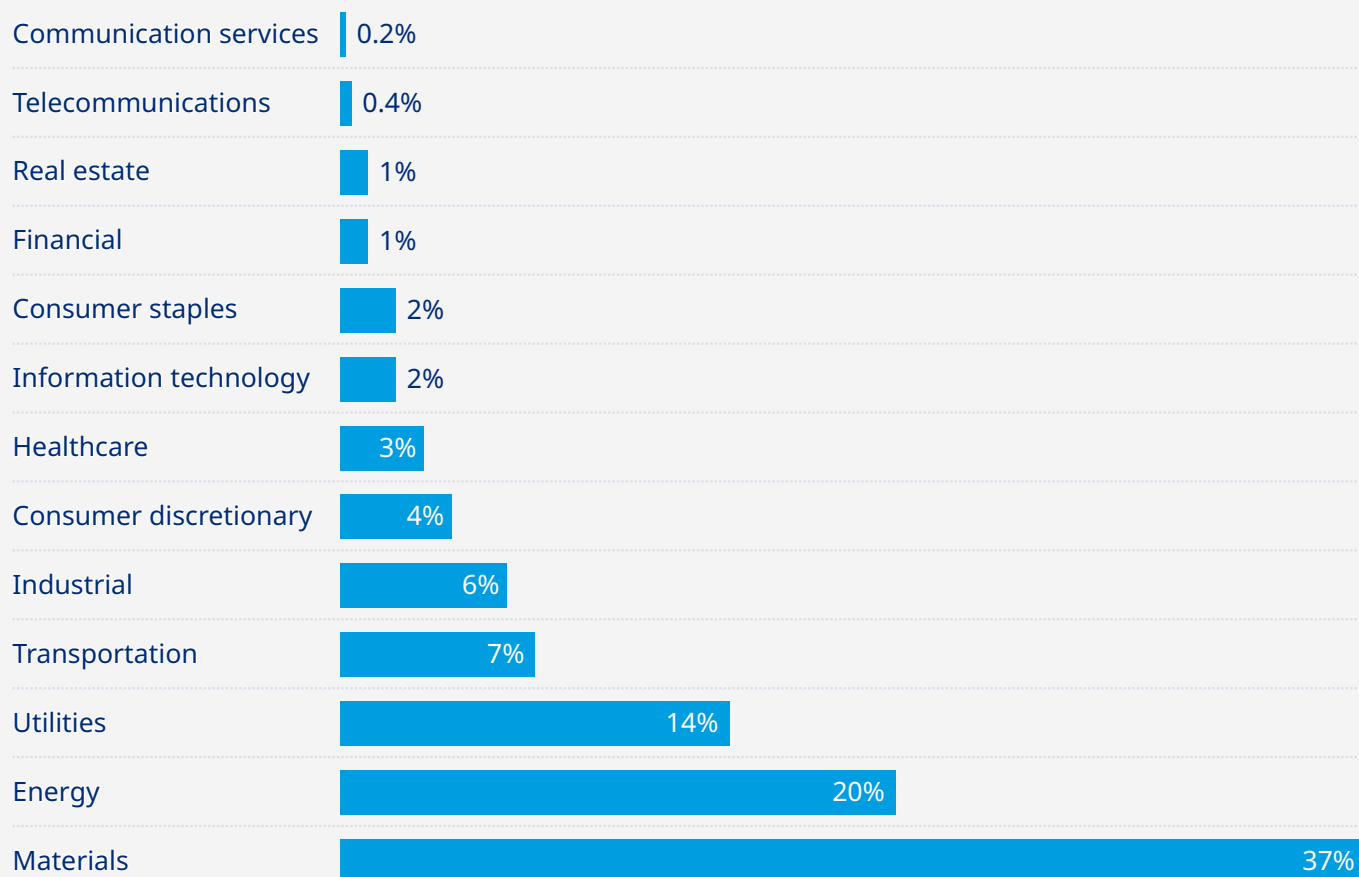
Source: MSCI BarraOne. Absolute emissions have been calculated assuming an asset level of US\$1,558,674,482 as at 31 December 2023.

Carbon footprint is a corporate asset-related metric; therefore, we will discuss its attribution with regards to the “corporate portfolio”. The corporate portfolio, which comprises equity, corporate bonds and securitised assets, represents 68.7% of the total Model Growth Portfolio. Equity assets make up 69.1% of the corporate portfolio but are accountable for only 55% of the carbon footprint.

Corporate bonds, however, make up just 28% of the corporate portfolio but are accountable for 44% of the carbon footprint. This shows that the corporate bond issuers of holdings have, on average, higher carbon intensities than the equity issuers, as expected. This observation is true for all four portfolios analysed.

**Figure 7. Model Growth Portfolio: Carbon footprint split by asset class**

Source: MSCI BarraOne as at 31 December 2023.

**Figure 8. Model Growth Portfolio: Carbon footprint split by sector**

Source: MSCI BarraOne as at 31 December 2023.

The main contributing sector to portfolio carbon footprint is materials, followed by energy and utilities. These sectors are significant drivers of all portfolio carbon footprints analysed. Communication services and telecommunications

contribute <1% combined to the portfolio carbon footprint. Most of the portfolios' carbon footprints are driven by emerging markets corporate bonds, held across emerging markets debt and Asia high-yield strategies.



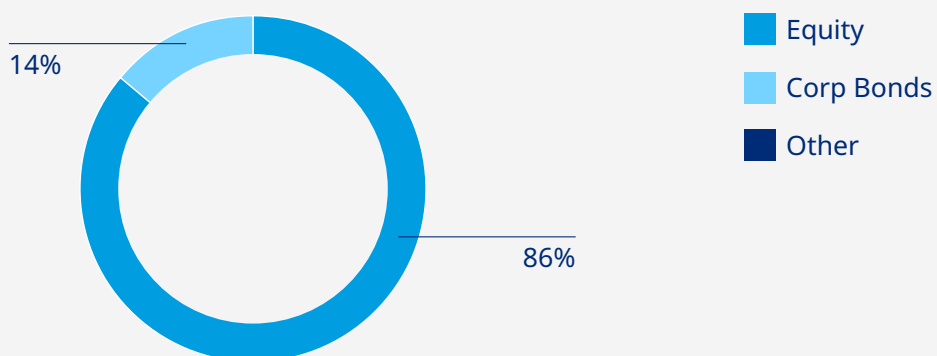
**Figure 9. Model Growth Portfolio: Data quality**

Source: MSCI BarraOne as at 31 December 2023. Due to differences in reporting approaches for Scope 3 emissions, only estimated data are used in calculations to ensure consistency in the underlying methodology.

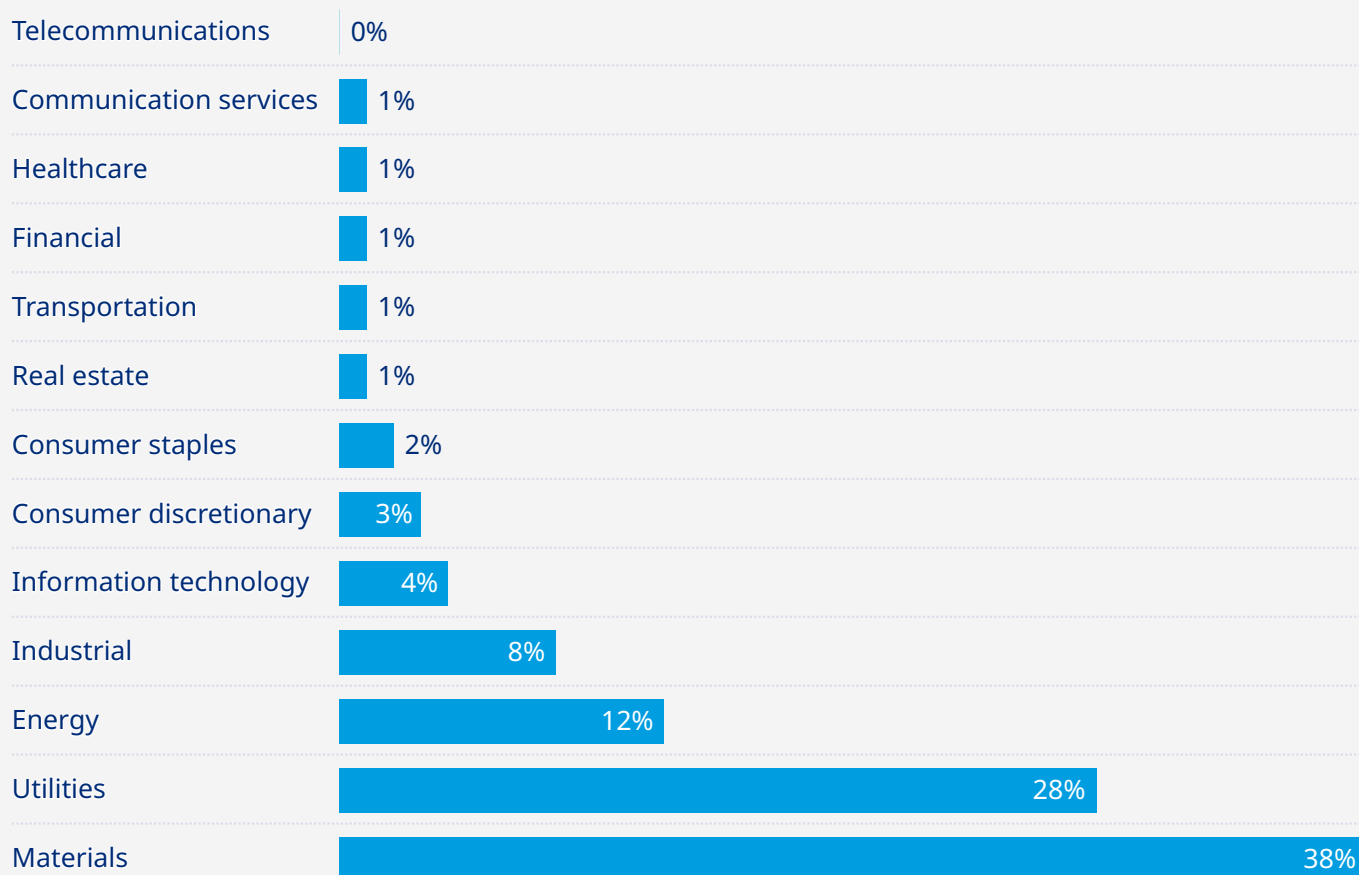
## Mercer Multi Asset Growth Fund — Emissions-based metrics

Scope 1+2 emissions	% of total portfolio	Absolute emissions (tCO <sub>2</sub> e) Corporate assets		Carbon footprint (tCO <sub>2</sub> e/\$m invested)		Weighted average carbon intensity (tCO <sub>2</sub> e/\$m revenue)		Absolute emissions (tCO <sub>2</sub> e) Sovereign assets	Sovereign intensity (tCO <sub>2</sub> e production emissions/\$m PPP-adjusted GDP)	
				Coverage	Metric	Coverage	Metric		Coverage	Metric
Total portfolio	100%	827,099		96%	78	98%	198	698,514	100%	312
Scope 3 emissions		Upstream		Downstream		Upstream		Downstream		
Total corporate portfolio	76%	1,170,236	2,295,526	83	164	208	275			

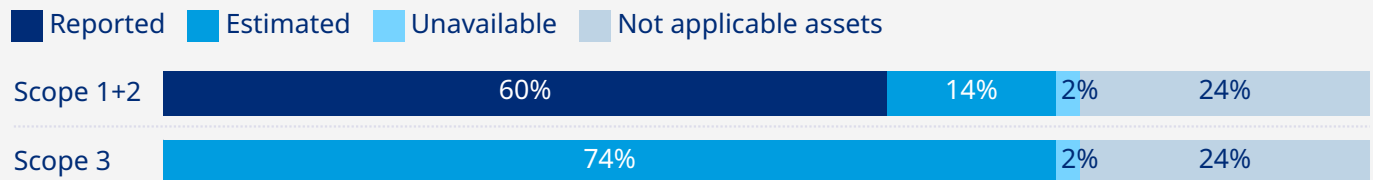
Source: MSCI BarraOne. Absolute emissions have been calculated assuming an asset level of US\$14,023,120,171 as at 31 December 2023.

**Figure 10. Mercer Multi-Asset Growth Fund: Carbon footprint split by asset class**

Source: MSCI BarraOne as at 31 December 2023.

**Figure 11. Mercer Multi Asset Growth Fund: Carbon footprint split by sector**

Source: MSCI BarraOne as at 31 December 2023.

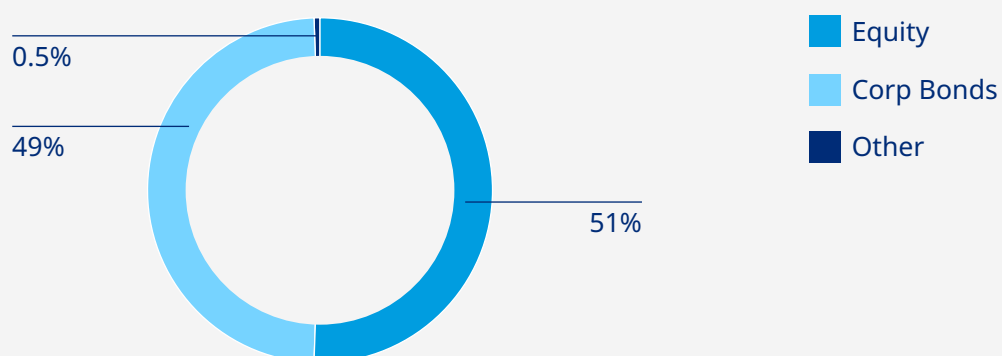
**Figure 12. Mercer Multi Asset Growth Fund: Data quality**

Source: MSCI BarraOne as at 31 December 2023. Due to differences in reporting approaches for Scope 3 emissions, only estimated data are used in calculations to ensure consistency in the underlying methodology.

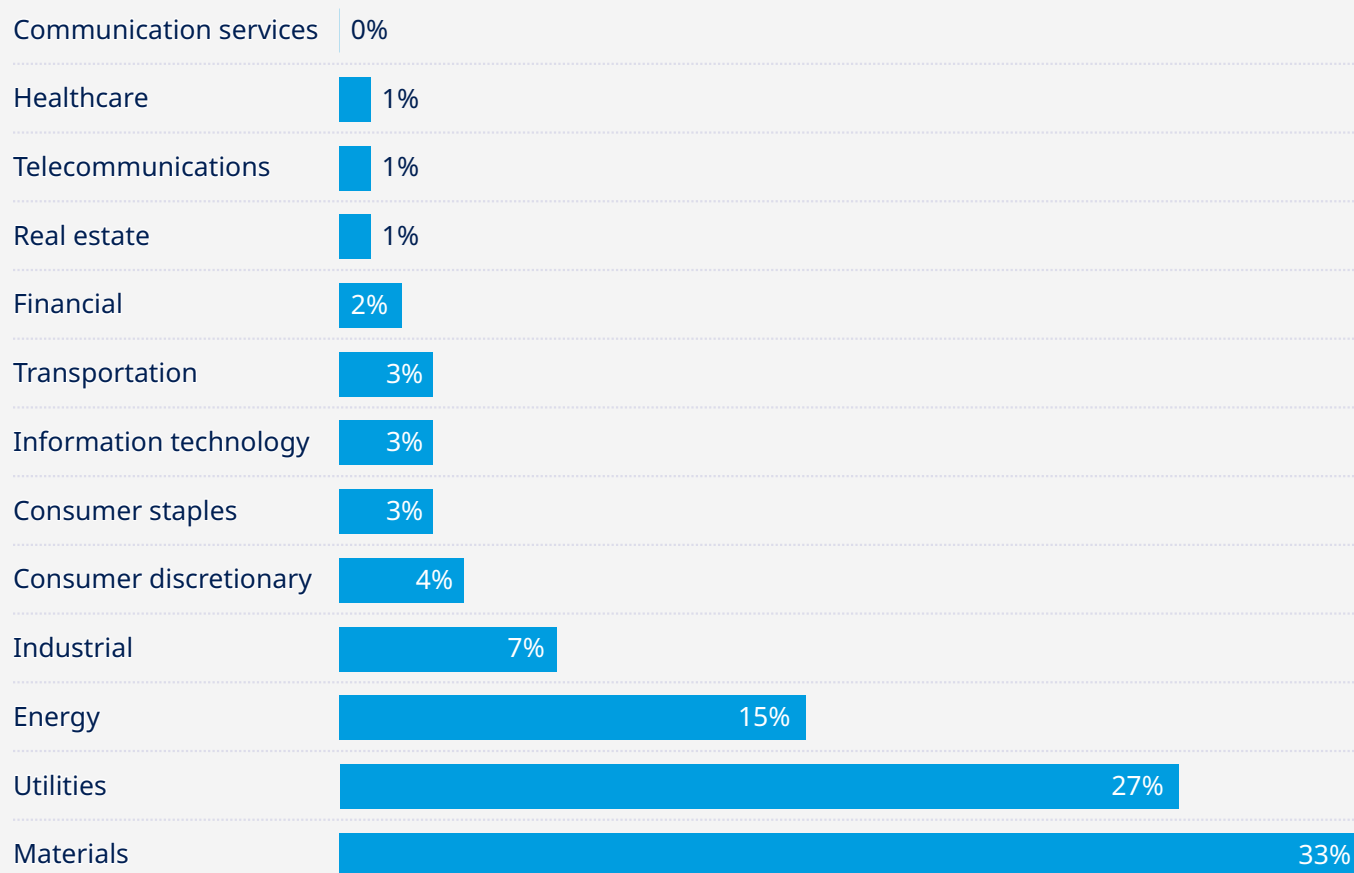
## Mercer Diversified Retirement Fund — Emissions-based metrics

Scope 1+2 emissions	% of total portfolio	Absolute emissions (tCO <sub>2</sub> e) Corporate assets		Carbon footprint (tCO <sub>2</sub> e/\$m invested)		Weighted average carbon intensity (tCO <sub>2</sub> e/\$m revenue)		Absolute emissions (tCO <sub>2</sub> e) Sovereign assets	Sovereign intensity (tCO <sub>2</sub> e production emissions/\$m PPP-adjusted GDP)	
				Coverage	Metric	Coverage	Metric		Coverage	Metric
Total portfolio	100%	63,875		85%	58	94%	150	102,216	100%	201
Scope 3 emissions		Upstream	Downstream	Upstream	Downstream	Upstream	Downstream			
Total corporate portfolio	63%	108,639	221,228	63	128	163	275			

Source: MSCI BarraOne. Absolute emissions have been calculated assuming an asset level of US\$1,734,797,560 as at 31 December 2023.

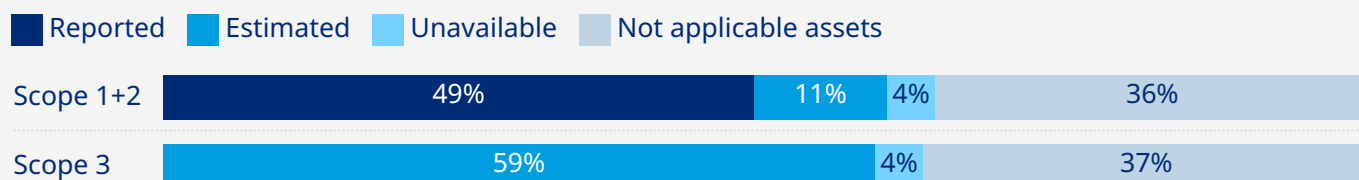
**Figure 13. Mercer Diversified Retirement Fund: Carbon footprint split by asset class**

Source: MSCI BarraOne as at 31 December 2023.

**Figure 14. Mercer Diversified Retirement Fund: Carbon footprint split by sector**

Source: MSCI BarraOne as at 31 December 2023.



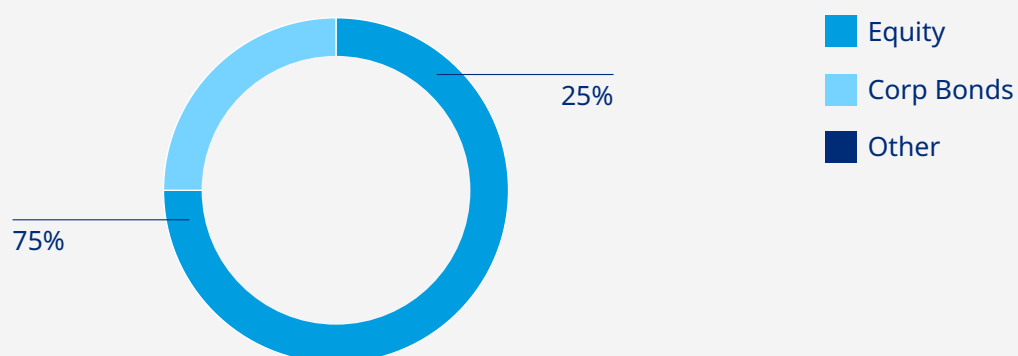
**Figure 15. Mercer Diversified Retirement Fund: Data quality**

Source: MSCI BarraOne as at 31 December 2023. Due to differences in reporting approaches for Scope 3 emissions, only estimated data are used in calculations to ensure consistency in the underlying methodology. The above may not sum to 100% due to rounding.

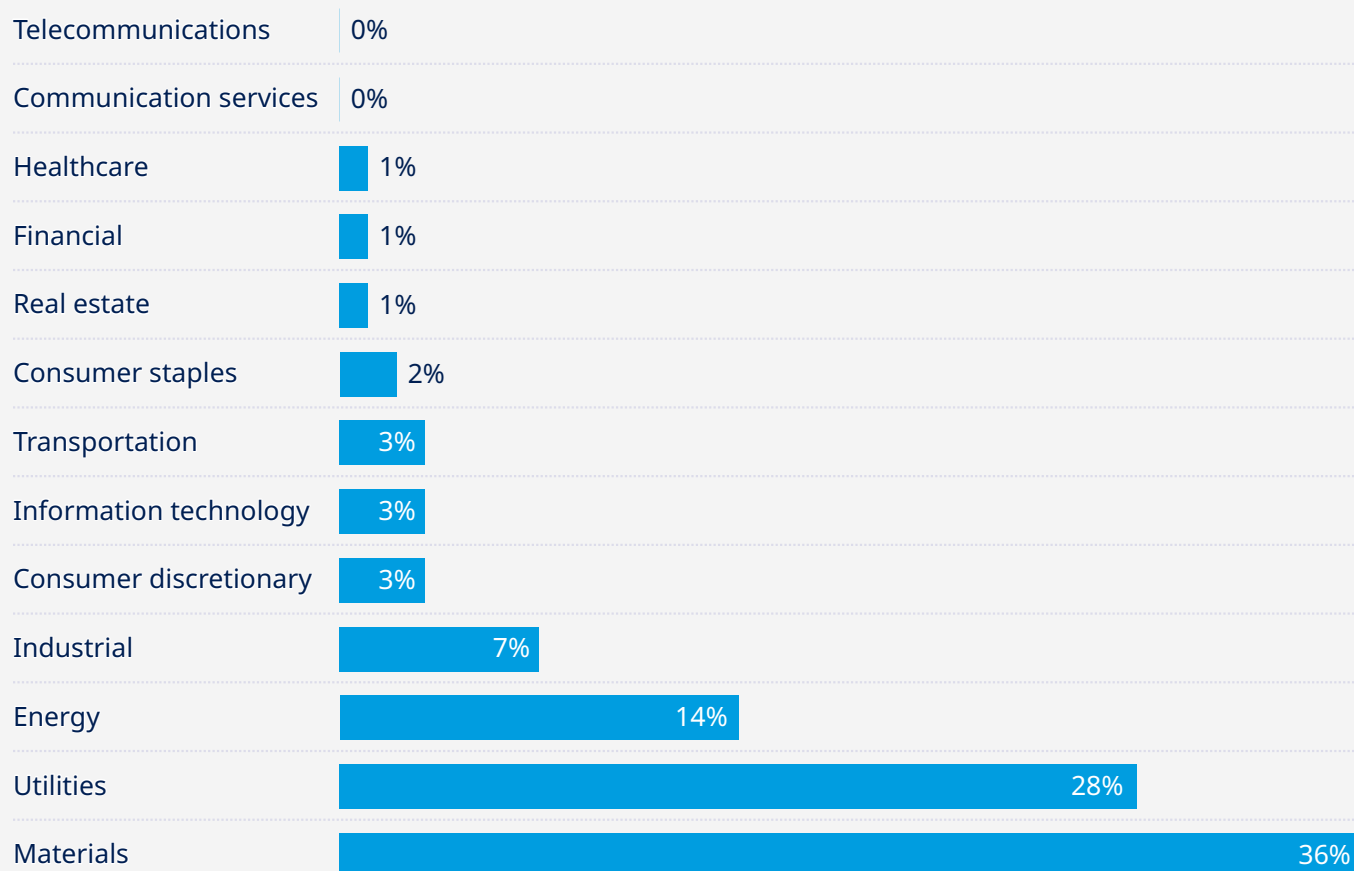
## Mercer Diversified Growth Fund — Emissions-based metrics

Scope 1+2 emissions	% of total portfolio	Absolute emissions (tCO <sub>2</sub> e) Corporate assets		Carbon footprint (tCO <sub>2</sub> e/\$m invested)		Weighted average carbon intensity (tCO <sub>2</sub> e/\$m revenue)		Absolute emissions (tCO <sub>2</sub> e) Sovereign assets	Sovereign intensity (tCO <sub>2</sub> e production emissions/\$m PPP-adjusted GDP)	
				Coverage	Metric	Coverage	Metric		Coverage	Metric
Total portfolio	100%	487,138		93%	80	96%	205	454,200	100%	297
Scope 3 emissions		Upstream		Downstream		Upstream		Downstream		
Total corporate portfolio	70%	677,026	1,376,606	77	157	194	271			

Source: MSCI BarraOne. Absolute emissions have been calculated assuming an asset level of US\$8,761,272,713 as at 31 December 2023.

**Figure 16. Mercer Diversified Growth Fund: Carbon footprint split by asset class**

Source: MSCI BarraOne as at 31 December 2023.

**Figure 17. Mercer Diversified Growth Fund: Carbon footprint split by sector**

Source: MSCI BarraOne as at 31 December 2023.

**Figure 18. Mercer Diversified Growth Fund: Data quality**

Source: MSCI BarraOne as at 31 December 2023. Due to differences in reporting approaches for Scope 3 emissions, only estimated data are used in calculations to ensure consistency in the underlying methodology. The above may not sum to 100% due to rounding.

## Alignment and non-emissions-based metrics — Corporate assets only

	Corporate assets (% of portfolio)	Climate value at risk (%)		Implied temperature rise (C)		SBTi alignment (%)
		Coverage	Metric	Coverage	Metric	
Model Growth Portfolio	69%	82%	-16.7%	80%	2.4C	30%
Mercer Multi Asset Growth Fund	76%	95%	-16.3%	94%	2.4C	35%
Mercer Diversified Growth Fund	70%	92%	-16.4%	92%	2.4C	34%
Mercer Diversified Retirement Fund	63%	83%	-14.2%	90%	2.2C	37%

Source: MSCI BarraOne as at 31 December 2023.

## Physical damages risk analysis

### Corporate portfolio results as at 31 December 2023

Physical risk analysis allows us to assess the downside potential associated with risks from physical damages on a business's assets to identify those holdings most exposed to physical risk impacts between now and 2100.

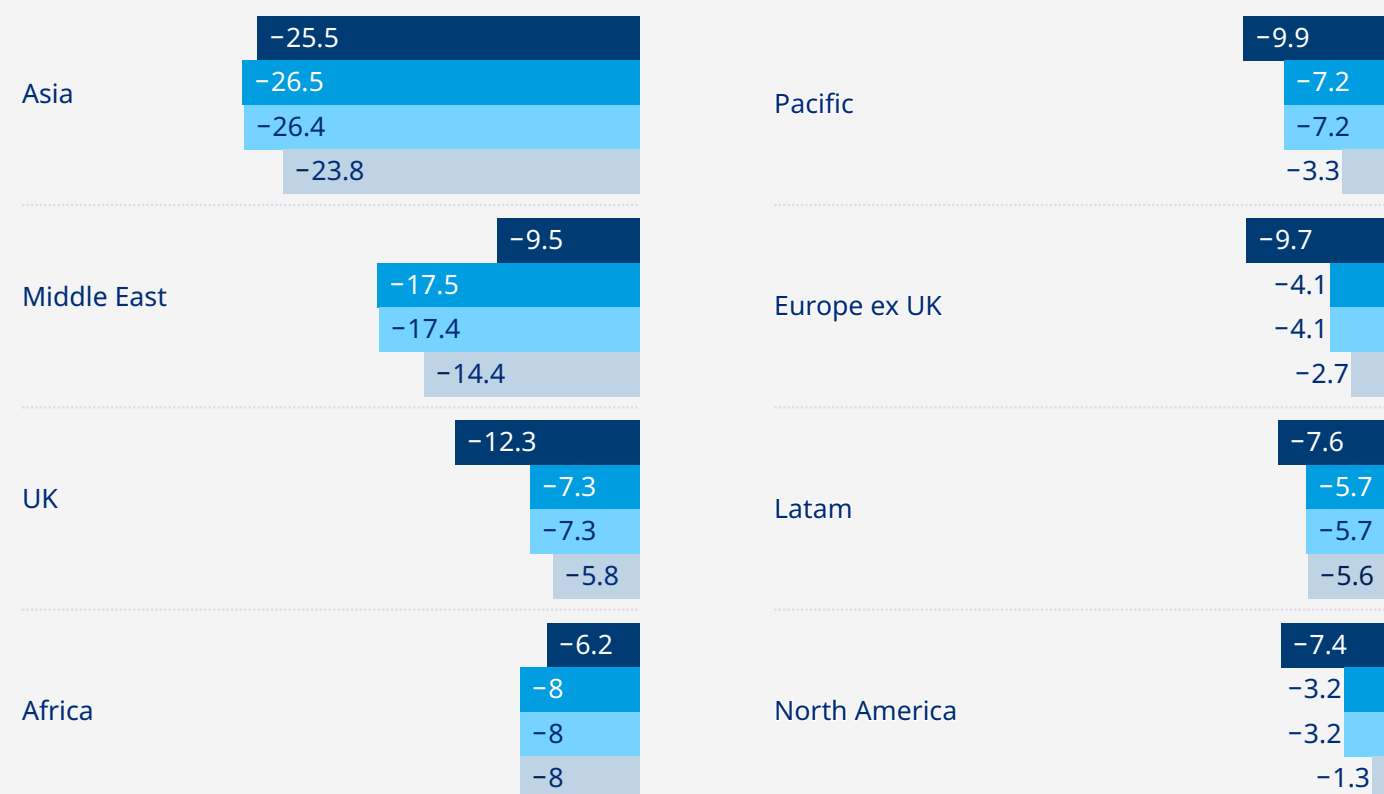
The chart below assesses physical damage using the physical climate value at risk ("**physical CVaR**") metric, measured across each building-block strategy held within our key portfolios.

On a regional basis, emerging markets have the highest physical CVaR, particularly Asia and the Middle East. On a sector basis, this is broadly driven by energy, consumer discretionary, industrials and materials.

Developed markets are least exposed to physical damages risks, evidenced by smaller physical CVaR associated with North America and Europe (excluding UK) and Pacific. Transportation, healthcare and communication services are the sectors with the least impact on portfolio physical CVaR.

Figure 19. Physical damages risk assessment

#### Physical damages value at risk (%)



■ Model Growth Portfolio 
 ■ Mercer Multi Asset Growth Fund  
■ Mercer Diversified Growth Fund 
 ■ Mercer Diversified Retirement Fund

Source: MSCI BarraOne . Data as at 31 December 2023.



## Contributors to Climate Solutions Analysis (corporate only)

### Example results as at 31 December 2023 — Mercer Sustainable Global Equity Fund

ISS ESG's UN Sustainable Development Goals (SDGs) Impact ratings (products and services only) have been used to measure investments that are contributing to or obstructing the transformation processes required to achieve the environmental and social goals identified in the UN SDGs, covering listed securities only.

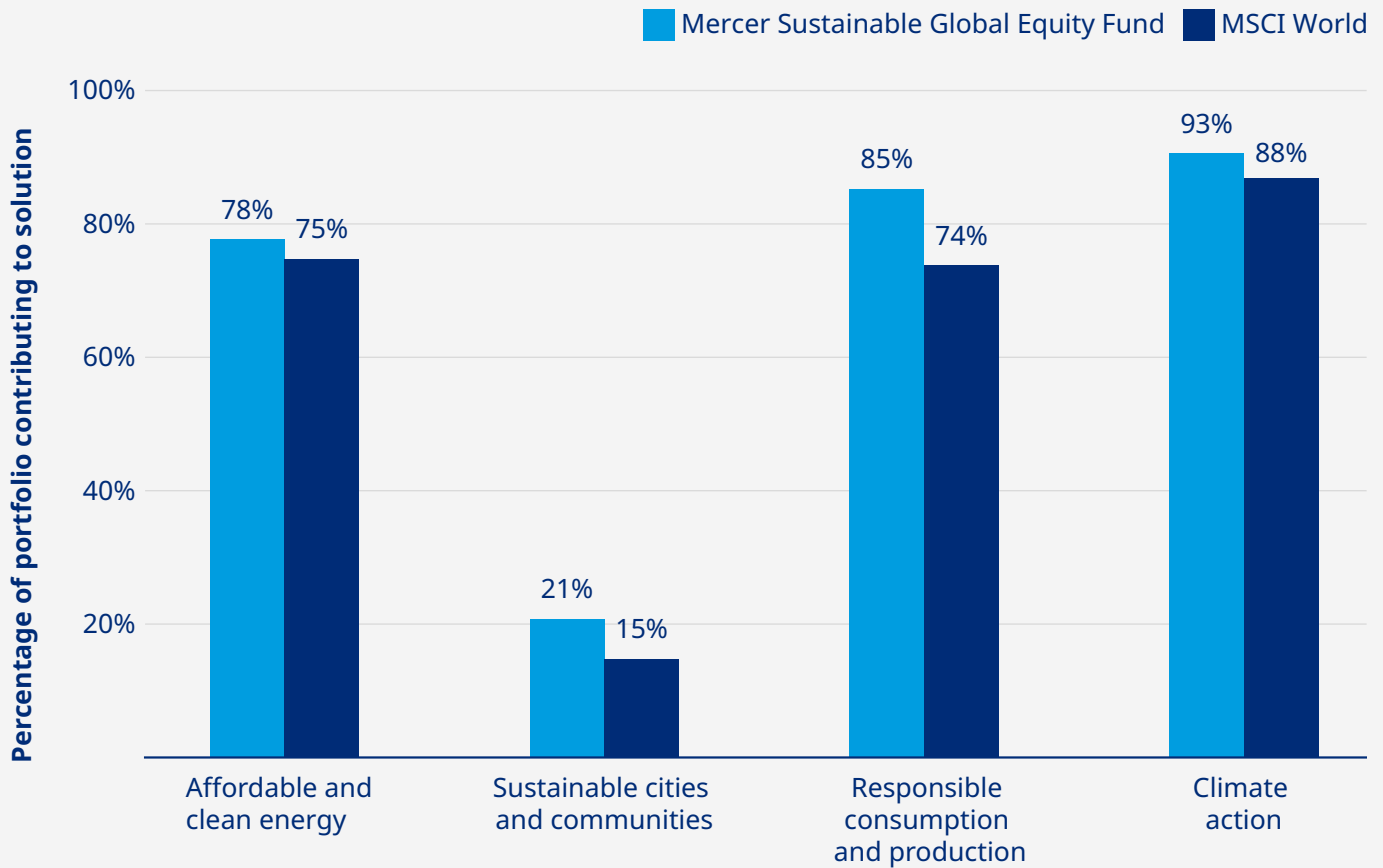
Figure 20 on the following page provides an example of the results for the Mercer Sustainable Global Equity Fund. These are companies making a neutral or positive contribution that are above 0 on the 0 to +10 scale. We have not yet set a higher minimum threshold.

The four SDGs selected for inclusion in this analysis as most relevant to climate solutions are:

1. SDG 7 — Affordable and clean energy
2. SDG 11 — Sustainable cities and communities
3. SDG 12 — Responsible consumption and production
4. SDG 13 — Climate action

Companies are rated on a scale of -10 (significant negative impact) to +10 (significant positive impact). Over 6,500 global companies are covered by this dataset. Research is limited to companies so that equity and credit strategies can be analysed but sovereigns or derivative strategies cannot.



**Figure 20. Exposure to climate solutions**

Source: MSCI BarraOne. Data as at 31 December 2023.

- The Mercer Sustainable Global Equity Fund has higher allocations to companies providing climate solutions contributing to achieving the UN SDGs than its benchmark across all four SDG themes analysed.
- SDG 11 (sustainable cities and communities) has the fewest aligned investments across both the Fund and Index.

Sector analysis on benchmarks identified no sector bias towards SDG 12 (responsible consumption). Utilities and information technology indicate a bias towards SDG 7 (affordable and clean energy) and SDG 13 (climate action) solutions. Real estate and utilities also indicate a bias towards SDG 11, meaning higher allocations to these sectors would likely increase relevant solutions exposure.

# Appendix B.

## Climate scenario model

We use climate-change scenario analysis to support strategic asset allocation decisions by testing resilience under multiple potential future outcomes. These scenarios cover a range of policy assumptions, market responses and temperature outcomes.

The Mercer climate scenarios are modelled using the macro-econometric (non-equilibrium) model of Cambridge Econometrics (the E3ME climate model), delivered in collaboration with Ortec Finance. Mercer's collaboration with Ortec Finance (and their collaboration with Cambridge Econometrics) aims to ensure the scenarios are grounded in the latest climate and economic research and give practical insights.

### More about the climate scenarios

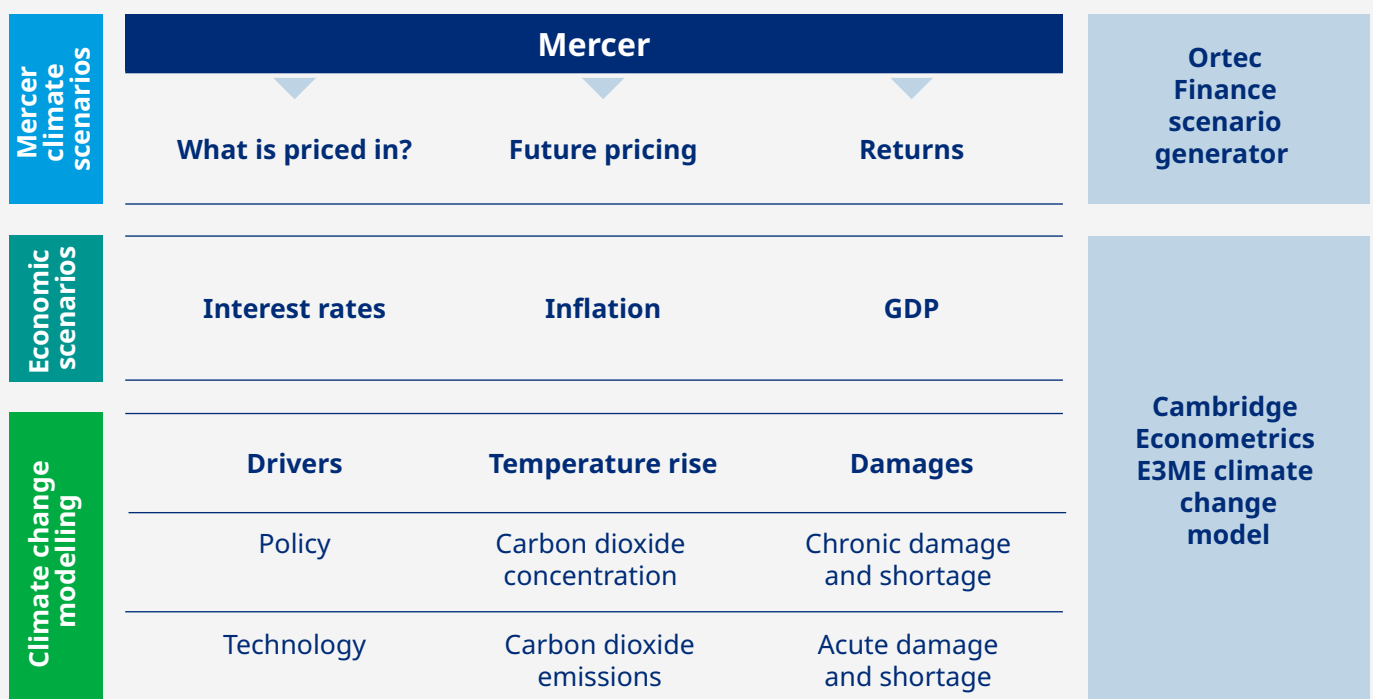
Mercer's climate scenarios build investment modelling on top of the economic impacts of

different climate-change scenarios within the E3ME climate model.

Each scenario covers a specific level of warming, driven by levels of carbon dioxide (**CO<sub>2</sub>**) and other greenhouse gases (**GHGs**). These levels are determined by the policies enacted and the technological developments. The impacts of the warming are shown in the physical risks. E3ME and Ortec's PREDICT model maps the physical risks to economic impacts and Ortec Finance's scenario generator maps the economic impacts to investment returns by making assumptions on what's currently priced in and how future pricing shocks will occur.

Mercer's scenarios include Mercer's views on what is priced in and are built on Mercer's climate-aware Capital Market Assumptions.

**Figure 21. Mercer's climate scenario construction model**



How does the modelling work?

The diagram above provides an overview of how the scenarios are constructed in multiple layers, including investment scenarios, economic scenarios and climate scenarios.

Potential financial impacts are driven by two key sources of change:

1. The physical risks expected from an increase in average global temperatures
2. The associated transition to net zero

The image below demonstrates some of the potential risk factors associated with these key sources of change.

Physical risk factors



- Technology
- Policy



- Availability of natural resources
- Chronic damage (including productivity)
- Acute damage (catastrophes)

Opportunities from the low-carbon transition

Sudden asset repricing risk

Sector performance divergence — energy, transport and agriculture most impacted

Physical risks increasingly dominate over longer term



The scenarios are not built on the Network for Greening the Financial System (NGFS) scenarios but can be mapped to the NGFS framework, including the orderly and disorderly transition and increased warming and physical damages scenarios. A key differentiating factor in our scenarios is the forward pricing-in of stress tests. The September 2022 NGFS update has not been considered in the CAST analysis presented in this report.

- Scenario stress-testing is embedded in the Mercer/Ortec scenarios, whereas the NGFS scenarios do not incorporate this.

- Pricing-in shocks are captured before the actual risk event. For example, the physical risk is now assumed to be priced in within current investor timeframes rather than in 2100.

The baseline comparison is Mercer's view on what is already priced in at the time of the analysis, reflecting capital market assumptions and a weighted combination of the three climate scenarios given current policies.

## Modelling assumptions

	Rapid transition	Orderly transition	Failed transition
<b>Summary</b>	Sudden divestments in 2025 to align portfolios with the Paris Agreement goals have disruptive effects on financial markets with sudden repricing followed by stranded assets and a sentiment shock.	Political and social organisations act quickly and predictably to implement the recommendations of the Paris Agreement to limit global warming to below 2°C.	The world fails to meet the Paris Agreement goals, and global warming reaches 4.3°C above pre-industrial levels by 2100. Physical climate impacts cause large reductions in economic productivity and increasing impacts from extreme weather events.
<b>Cumulative emissions</b>	416 GtCO <sub>2</sub> (2020–2100) — most closely corresponding to the “lowest emissions” IPCC pathway: SSP1 RCP1.9.	810 GtCO <sub>2</sub> (2019–2020) — most closely corresponding to the “low emissions” IPCC pathway: SSP1 RCP2.6.	5,127 GtCO <sub>2</sub> (2020–2100) — most closely corresponding to the “high emissions” IPCC pathway: SSP3 RCP7.0.
<b>Temperature change</b>	Average temperature increase of 1.5°C by 2100.	Average temperature increase of 1.8°C by 2100.	Average temperature increase of >4°C by 2100.

	Rapid transition	Orderly transition	Failed transition
<b>Key policy and tech assumptions</b>	<p>An ambitious policy regime is pursued to encourage greater decarbonisation of the electricity sector and to reduce emissions across all sectors of the economy.</p> <p>Higher carbon prices, larger investment in energy efficiency and faster phase out of coal-fired power generation will be likely under a rapid transition.</p>		Existing policy regimes are continued with the same level of ambition.
<b>Financial climate modelling</b>	Pricing-in of transition and physical risks of the coming 40 years occurs within one year in 2025. As a result of this aggressive market correction, a confidence shock to the financial system takes place in the same year.	Pricing-in of transition and physical risks until 2050 takes place over the first five years.	Physical risks are priced in two different periods: 2026–2030 (risks of first 40 years) and 2036–2040 (risks of 40–80 years).
<b>Physical risk impact on GDP</b>	<p>Physical risks are differentiated regionally, consider variation in expected temperature increase per region and increase dramatically with rising average global temperature. Physical risks are built up from:</p> <ul style="list-style-type: none"> <li>• Gradual physical risks associated with rising temperature (agricultural, labour and industrial productivity losses)</li> <li>• Economic impacts from climate-related extreme weather events</li> </ul> <p>Current modelling does not capture environmental tipping points or knock-on effects (for example, migration and conflict).</p>		
<b>Physical risk impact on inflation</b>	Gradual physical impact (supply shocks) on inflation included through risks to agriculture and change in food prices. Total impact on a Global CPI Index is +2% in 2100.	No explicit modelling of physical risk impact on inflation (supply-side shocks). Impact on inflation follows the historical relationship between GDP and CPI.	Severe gradual physical impact (supply shocks) on inflation included through risks to agriculture and change in food prices. Total impact on a Global CPI Index is +15% in 2100.

Although there are many benefits, there are also limitations associated with any modelling. Further detail is provided later in this Appendix.

## Summary scenario analysis results for Mercer portfolios

We carry out climate-change-scenario analysis on the strategic asset allocation (SAA) for our key model portfolios and multi-asset multi-client funds to assess the potential implications under the three different scenarios outlined above. The latest climate-change-scenario analysis was based on the strategic asset allocation of each portfolio as at 31 December 2021 and used asset-class assumptions rather than actual fund-holding data. We plan to repeat this analysis in 2024 to

capture changes made to the portfolios since and updates to the scenarios.

Due to the long-term nature of the climate-change-scenario analysis, we assessed the impact of climate scenarios against our strategic asset allocation given the time horizons as opposed to including the shorter-term dynamic asset allocation overlay.

The outputs shown in the table below for the additional climate impact on returns expected annually relative to the baseline<sup>20</sup> are for the Model Growth Portfolio and the Mercer Multi Asset Growth Fund:

### Annualised additional return impacts — Model Growth Portfolio and Mercer Multi Asset Growth Fund as at 31 December 2021

	Model Growth Portfolio annualised additional expected return impact (% p.a.)	Mercer Multi Asset Growth Fund annualised additional expected return impact (% p.a.)
<b>Rapid transition</b>		
Impact at five years (2026)	-1.3%	-1.6%
Impact at 20 years (2041)	-0.2%	-0.3%
Impact at 40 years (2061)	-0.1%	-0.1%
<b>Orderly transition</b>		
Impact at five years (2026)	-0.4%	-0.4%
Impact at 20 years (2041)	-0.1%	-0.1%
Impact at 40 years (2061)	-0.2%	-0.2%
<b>Failed transition</b>		
Impact at five years (2026)	0.3%	0.4%
Impact at 20 years (2041)	-1.0%	-1.0%
Impact at 40 years (2061)	-0.7%	-0.8%

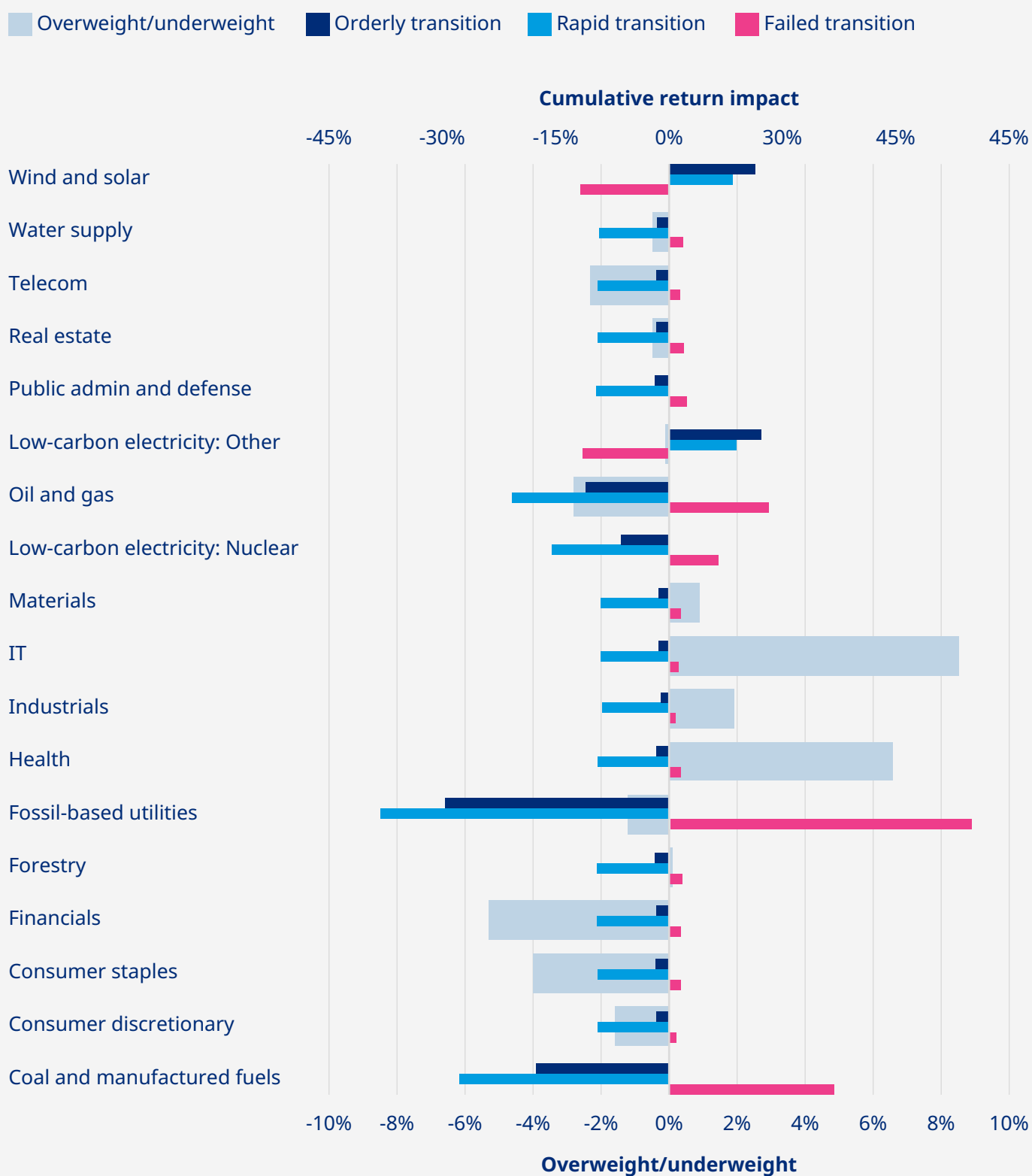
While the impacts on returns are muted on an annualised basis, we believe they are quite significant on a longer-term cumulative basis.



Time horizon	Portfolio implications
<b>Short term (five years)</b>	Transition risk dominates, with the rapid transition having the biggest impact over a five-year period, with this timeframe muted for the orderly and failed transition scenarios.
<b>Medium term (20 years)</b>	Over the medium term, physical risks and transition risks have material negative impacts on return in the failed transition scenario, which do not eventuate in the rapid and orderly transitions.
<b>Long term (40 years)</b>	Over the long term, physical risks continue to drive meaningful annual drags on return, which do not eventuate in a rapid or orderly transition scenario. We also know that the physical risks modelling cannot capture the full systemic impacts that may emerge (see the Appendix for links to further commentary on this).

Source: Mercer.

Within asset classes, the sector exposures are important and can have meaningfully divergent results under different climate scenarios.

**Figure 22. Sector analysis — Five years (2026)**

Source: Mercer. Analysis as at 31 December 2021.

## Risks and opportunities

### Transition risks and opportunities

We reviewed the potential financial and economic risks and opportunities from the transition to net zero (that is, one that has a low or no reliance on fossil fuels) in areas such as technology and policy.

Risks may include the possibility of sudden asset re-pricing events or increased costs associated with high-carbon activities and products. There may also be opportunities from low-carbon technology developments.

The transition to net-zero emissions is already underway as evidenced by the disruption in major sectors such as energy and utilities and, increasingly, in transport and the built environment. These technology and economy-driven changes are emerging iteratively, with a growing policy ambition globally from governments, companies and investors together with individual demand. These developments may increase the likelihood of a lower warming scenario and the near-term risks and opportunities this scenario may present.

### Physical risks and opportunities

The higher the future level of global temperature rises, the more frequent and significant physical risks are expected to be. Physical risks may include:

- Availability of natural resources (water, food, materials, biodiversity loss)
- Chronic damage (longer-term shifts in climate patterns causing sea levels to rise and directly impacting the productivity of labour, agriculture and industry)
- Acute damage (major catastrophes from storms, wildfires, droughts, floods)

Over shorter timeframes, transition risk tends to dominate. However, over longer timeframes, physical risk and the associated damage (both anticipated and realised) are likely to be the key drivers of climate impacts. Physical damage risk and loss are largely expected to emerge in the medium to longer term and to require increasing prioritisation given emerging evidence for perils eventuating sooner than anticipated in multiple regions.<sup>21</sup> These tend to present the greatest risk in cases where the physical assets of a company are critical to its financial outcomes (for example, an office building, a network of factories or a timber plantation).<sup>22</sup> One key strength of our scenario analysis is that it aims to allow for climate impacts to be priced in before they happen. This reflects likely market dynamics and our expectation that climate impacts can be expected within investment timeframes.



## Climate-scenario modelling limitations

1. The further into the future you go, the less reliable any quantitative modelling is likely to be.
2. Looking at average asset-class returns over multi-decade timeframes leads to invariably small impacts. The results are potentially significantly underestimated.
3. There's a reasonable likelihood that physical risks are underestimated. Feedback loops or tipping points, like permafrost melting, are challenging to model particularly around the timing and the speed at which they could accelerate.
4. Financial stability and insurance breakdown is not modelled. A systemic failure may be caused by either an uninsurable 4°C physical environment or due to the scale of adaptation required following material warming of the planet.
5. Most adaptation costs and social factors are not priced into the models. These include population health and climate-related migration.



# Appendix C.

## Analytics for Climate Transition methodology



Mercer's proprietary ACT tool provides a bottom-up company-level perspective on transition risk and capacity across asset classes. A transition scenario, rapid or orderly, is increasingly possible, as the number of climate laws and decisions made by global policymakers to attempt to curb global emissions increases.

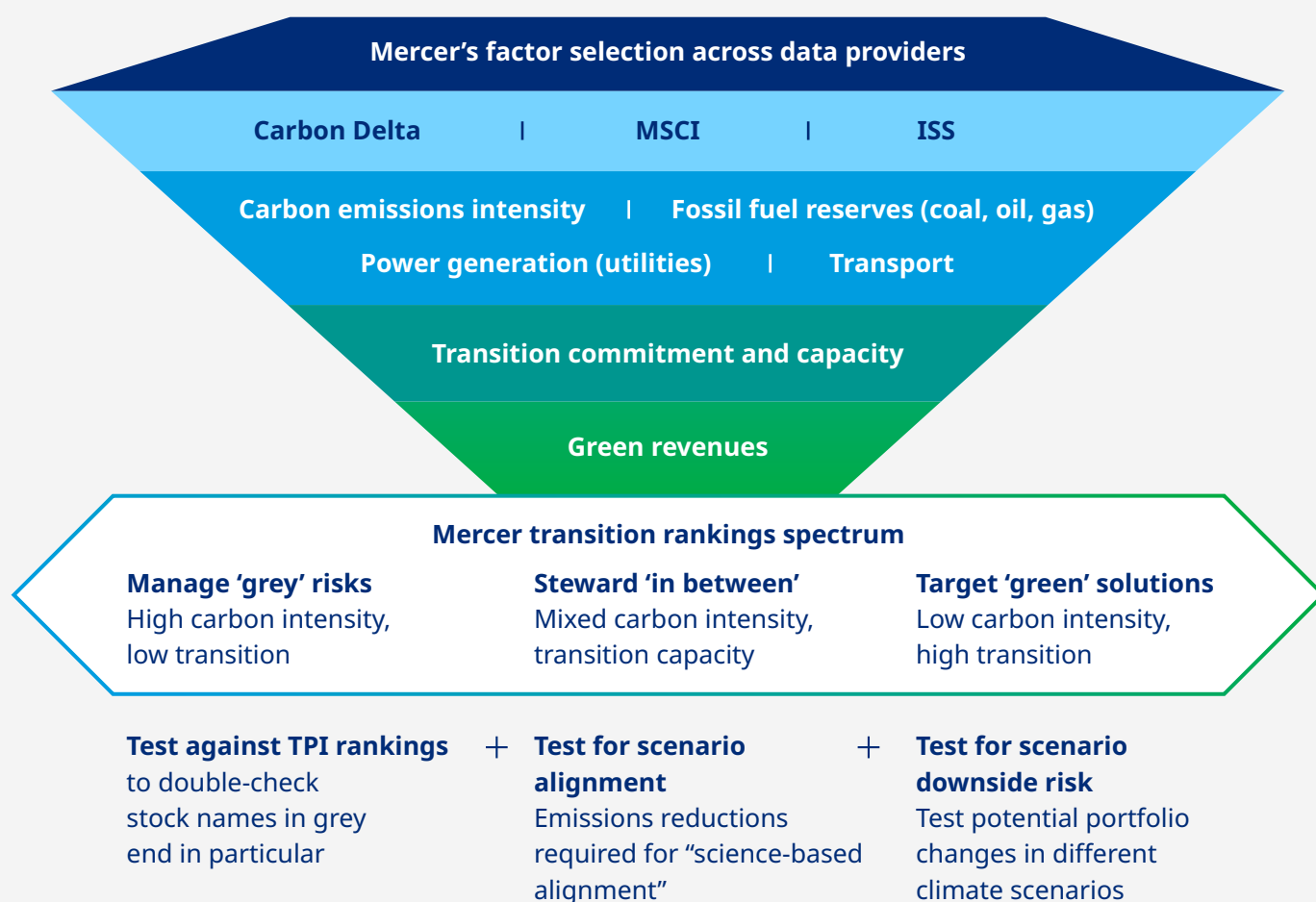
That said, global emissions are still rising. As financial climate-change-related disclosure regulation covers more companies and asset owners/managers, the impact of climate change is likely to be increasingly priced into markets and impact asset prices. Government policy and

regulation, the Paris Agreement, technology tipping points and pricing shifts in the energy sector, along with consumer sentiment and company actions, are all contributing to this pricing-in. A transition scenario presents the greatest short-term risks and opportunities in different sectors over the next decade to investors and therefore it is critical to understand risk exposures and where opportunities from the transition may lie.

ACT draws on multiple third-party metrics for company-level emissions and reserves, transition commitments and green revenues, and other UN SDG indicators. Mercer has selected and weighted the metrics to provide a single transition-capacity assessment, categorising companies and therefore strategies and portfolios

on a spectrum — going from “grey” (high-carbon and low-transition investments) to “green” (those already low-/zero-carbon or climate solutions) and the many companies “in between” — with varying transition capacities.

**Figure 23. Climate transition risk management**



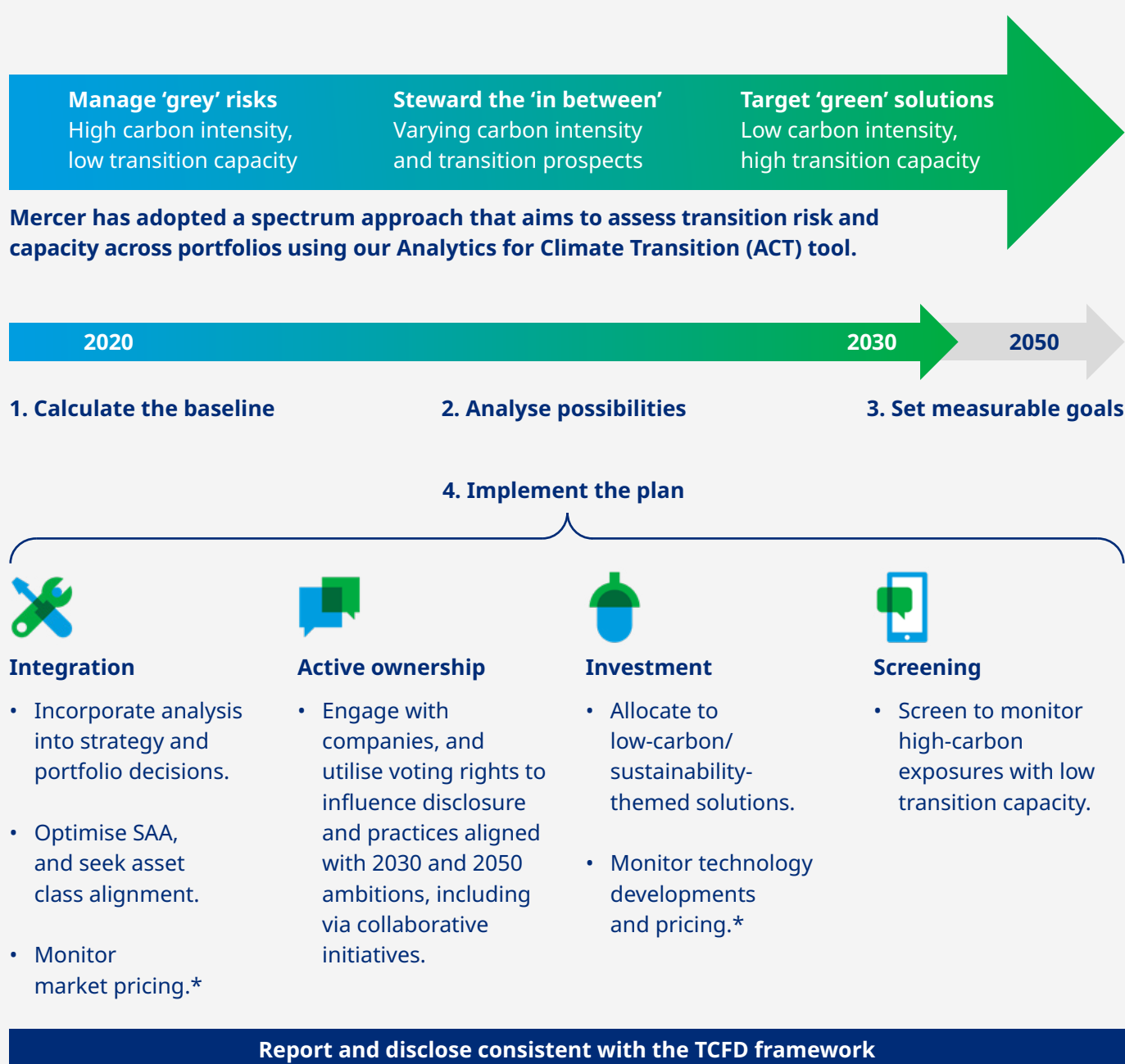
# Appendix D

## Net Zero Target

We have undertaken a step-by-step process to manage climate transition risk and underpin Mercer's Net Zero Target, supported by what we believe to be a robust analysis and our Climate Transition Plan.

We expect to achieve this without altering investment objectives or expected risk-return profiles to deliver on both short- and long-term investor outcomes.

**Figure 24. Climate transition framework**



\* "Decarbonisation at the right price" (DARP) is a term used to describe this market-aware approach to transition objectives.



Carbon-reduction targets are much like performance targets. They help to set expectations and provide goalposts to track and measure progress. We allocate investment capital to many companies across local and global economies, and, consistent with Mercer's global thinking, we expect that setting a public carbon-reduction target, underpinned by a thoughtful Climate Transition Plan focused on genuine economic transition, sends an important signal that we, alongside like-minded investors, companies and governments, can play a role in achieving a well-below-2°C scenario.

To meet our targets, we can apply the following key levers:

- Strategic asset allocation and portfolio construction decisions to allocate to solutions in line with our climate goals and consistent with our fiduciary responsibilities
- Asset-class approach to implementation; for example, selecting strategies and mandate guidelines with consideration for climate-goal alignment and other risk-return factors
- Active ownership and voting and engagement tools to ultimately target transition within company business models
- Allocation to sustainable infrastructure to support the energy transition that underpins significant parts of the whole economy

We work closely with our investment managers to identify and manage a staged emissions reduction plan, oversee fund allocations to climate solutions and steward an increase in transition capacity across the Mercer Funds. We monitor and report progress on reductions to clients annually. These targets are also embedded within necessary governance, risk management and strategy processes, and we communicate them to relevant partners and third parties (such as our investment managers and data providers).



# Appendix E

## Metrics methodology



### Data sources

Our climate-related metrics are sourced from MSCI BarraOne using stock list data provided by our investment managers and/or appointed custodian.

### Data coverage

Data coverage refers to the proportion of an asset in which the various climate-related metric data are available. There are gaps in the data as:

- Some public listed companies are not publishing climate-related data or are providing poor quality data, particularly public equity and corporate bonds. It is also challenging to obtain data for emerging markets issuers due to general disclosure and transparency issues.
- Many private companies do not currently produce climate-related data. In addition,

coverage for private markets, such as private equity and private debt, is low or zero for mature funds.

- Sovereigns or governments may not publish climate-related data in the public domain. This is a particular challenge for emerging market debt.
- Short-term instruments, such as secured-finance assets, have limited data available due to the short-term nature of the individual assets.

Metrics in this report use a pro-rata approach to scale up each climate metric to present the data as if full coverage was available for each asset. This assumes that the part of an investment fund that does not have data available has the same investment characteristics (for example, same sector or geography) as the part where there is data.



## Metrics calculations methodology

Emissions-based	<b>Weighted average carbon intensity (WACI)</b> (corporate assets only)	$\sum \frac{\$ \text{ investment}}{\$ \text{ portfolio value}} \times \frac{\text{Scope 1 and 2 emissions}}{\$ \text{ million of issuer's sales}}$
	<b>Sovereign carbon intensity</b> (sovereign debt assets only)	$\sum \frac{\$ \text{ investment}}{\$ \text{ portfolio value}} \times \frac{\text{Production GHG emissions of country}}{\text{PPP-adjusted GDP of country}}$
	<b>Absolute emissions</b>	$\sum \frac{\$ \text{ investment}}{\text{issuer's EVIC}} \times \text{Scope 1 and 2 emissions}$
	<b>Carbon footprint</b>	$\sum \left[ \frac{\$ \text{ investment}}{\text{issuer's EVIC}} \times \text{Scope 1 and 2 emissions} \right] \div \$ \text{ portfolio value } (\$ \text{ million})$
Portfolio alignment	<b>Implied temperature rise</b>	The metric projects emissions forward for each company to assess how closely aligned it is with the Paris Agreement objective of 2°C of warming by 2100, taking into account the company's emissions, commitments and momentum. This is then aggregated to the fund and portfolio levels. Methodologies for this metric may vary by data provider. For the purposes of this analysis, the data provider is MSCI. Further methodology details can be viewed <a href="#">on the MSCI website</a> .
Non-emissions-based	<b>Data quality</b>	The percentage of a portfolio that has reported data, estimated data, verified data and no available data
	<b>Climate value at risk</b>	This demonstrates the expected return contribution from changes arising in a 1.5°C scenario out to 2100. It is designed to provide a forward-looking and returns-based valuation assessment to measure climate-related risks and opportunities in an investment portfolio across top-down risks and opportunities (transition and physical exposures) and bottom-up risks and opportunities (policy/economic impacts and technology/company-specifics).

## Endnotes

- 1 This report equally applies to Mercer Global Investments Europe Limited and Mercer Global Investments Management Limited, and reference to Mercer IS throughout should also be interpreted to cover these entities. Notwithstanding the foregoing, certain information in this report may not be applicable to Mercer Global Investment Management Limited given its current structure.
- 2 “Mercer Funds” are any collective investment scheme, including investment companies, common contractual funds, unit trusts and limited partnerships, for which Mercer Global Investments Europe or any affiliate serves as discretionary investment manager. This includes the Mercer-Ireland-domiciled UCITS and AIFs for which Mercer Global Investments Europe acts as Management Company or Alternative Investment Fund Manager, respectively. For further information, please see the Important Notices section of this document.
- 3 The Intergovernmental Panel on Climate Change, available at <https://www.ipcc.ch/>.
- 4 Kahn ME et al. *Long-Term Macroeconomic Effects of Climate Change: A Cross-Country Analysis*, 11 October 2019, available at <https://www.imf.org/en/Publications/WP/Issues/2019/10/11/Long-Term-Macroeconomic-Effects-of-Climate-Change-A-Cross-Country-Analysis-48691>.
- 5 Carney M. “Breaking the Tragedy of the Horizon — Climate Change and Financial Stability.” Speech by the Governor of the Bank of England and Chairman of the Financial Stability Board given at Lloyd’s of London, 29 September 2015, available at <https://www.bankofengland.co.uk/-/media/boe/files/speech/2015/breaking-the-tragedy-of-the-horizon-climate-change-and-financial-stability.pdf?la=en&hash=7C67E785651862457D99511147C7424FF5EA0C1A>.
- 6 Principles for Responsible Investment. “Climate Change for Asset Owners”, 29 June 2020, available at <https://www.unpri.org/introductory-guides-to-responsible-investment/an-introduction-to-responsible-investment-climate-change-for-asset-owners/5981.article>.
- 7 This material does not constitute advice or an offer or a solicitation of an offer to buy or sell securities, commodities and/or any other financial instruments or products or constitute a solicitation on behalf of any of the investment managers, their affiliates, products, or strategies that Mercer may evaluate or recommend. No investment decision should be made based on this information without first obtaining appropriate professional advice and considering your circumstances.
- 8 The Financial Stability Board is an international body established by the G20 that monitors and makes recommendations about the global financial system. The TCFD’s purpose was to develop recommendations for more effective climate-related disclosures that could in turn be used, in part, to promote more informed investment decisions. The initial recommendations were released in 2017. The taskforce has since been disbanded and monitoring responsibilities are now with International Financial Reporting Standards (IFRS) Foundation.
- 9 In line with the 2015 Paris Agreement.
- 10 As measured by portfolio-weighted average carbon intensity based on data as at 31 December 2019. See Appendix A for a detailed definition.
- 11 Mercer. *Investing in a Time of Climate Change*, 2015, and *Investing in a Time of Climate Change: The Sequel*, 2019, available at <https://www.marshmcclennan.com/insights/publications/2019/may/investing-in-a-time-of-climate-change.html>.
- 12 We note that the 2015 Paris Agreement has a core goal of limiting global temperature increase to well below 2°C while pursuing efforts to limit the increase to 1.5°C.
- 13 See Appendix A for a detailed definition.
- 14 More information is set out in the **Strategy** section.
- 15 To date, this has primarily focused on transition risks but increasingly recognises the need to include physical risks. Both the top-down and bottom-up approaches capture all asset classes except derivatives.
- 16 See **Appendix B** for further details on assumptions and methodology. See the **Strategy** section for key findings.
- 17 2023 Net Zero Company Benchmark results, available at <https://www.climateaction100.org/net-zero-company-benchmark/findings/>.
- 18 In the context of this report, we are defining climate solutions by how we calculate our exposure. We use data from third-party data provider ISS ESG. In this context climate solutions are considered to positively impact one or more of the following UN Sustainable Development Goals (SDGs): Affordable & Clean Energy, Climate Action, Responsible Consumption & Production, and Sustainable Cities & Communities. More information on the UN SDGs is available at <https://sdgs.un.org/>.
- 19 Gross revenue in the last full financial year is used or, where not available, net revenue based on available company filings.
- 20 At a market level, transition risks are reasonably priced in, but longer-term physical risks are more likely to be mispriced. Transition risks remain at sector level and at the market level due to the potential for more extreme transition scenarios to occur. We express this view by modelling scenarios relative to a climate-aware baseline.
- 21 Intergovernmental Panel on Climate Change Sixth Assessment Report, available at <https://www.ipcc.ch/assessment-report/ar6/> (synthesis report released March 2023).
- 22 See Mercer’s Zero Places to Hide paper, available at <https://www.mercer.com/our-thinking/wealth/zero-places-to-hide.html>.

## Important notices from data providers

### Mercer

Past performance does not guarantee future results. The information contained herein has been obtained from a range of third-party sources. Although the information is believed to be reliable, Mercer has not sought to verify it independently. As such, Mercer makes no representations or warranties as to the accuracy of the information presented and takes no responsibility or liability (including for indirect, consequential or incidental damages) for any error, omission or inaccuracy in the data supplied by any third party. The information does not constitute an offer or a solicitation of an offer to buy or sell securities, commodities and/or any other financial instruments or products or constitute a solicitation on behalf of any of the investment managers, their affiliates, products or strategies that Mercer may evaluate or recommend.

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