



# Climate-Related Disclosures

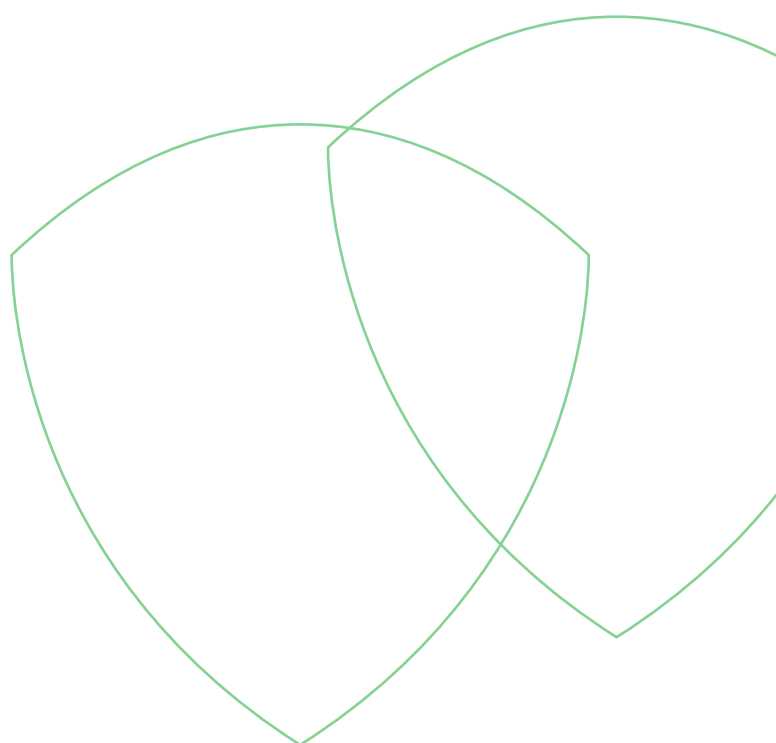
**For the year ended  
31 March 2025**

Medical Funds  
Management Limited

**MAS Investment  
Funds**

# Contents

<b>Introduction</b>	<b>3</b>	<b>Risk management</b>	<b>15</b>
<b>Reporting entity</b>	<b>3</b>	Integration of climate-related risks with overall risk management	15
<b>Funds within the Scheme</b>	<b>4</b>	Tools and methods	15
<b>Statement of compliance</b>	<b>5</b>	Time horizons	16
<b>Important notice for forward looking statements</b>	<b>5</b>	Excluded parts of the value chain	16
<b>Governance</b>	<b>6</b>	Frequency of assessment	17
Governance body	6	Processes for prioritising climate-related risks	17
Processes and frequency	6	<b>Metrics and targets</b>	<b>18</b>
Skills and competencies	6	Adoption Provisions	18
Implementation of investment strategy	6	Gross greenhouse gas (GHG) emissions	18
Metrics and targets for managing climate-related risks and opportunities	7	Percentage of assets vulnerable to transition and physical risks	18
Management's role	7	Assets aligned with climate-related risks and opportunities	18
Organisational structure	8	Metrics used to measure and manage climate-related risks	19
<b>Strategy</b>	<b>9</b>	Targets used to manage climate-related risks	19
Current physical and transition impacts	9	<b>Appendix A: Key assumptions and relevant international and domestic data sets used in scenario analysis</b>	<b>20</b>
Issues and uncertainties of assessing current impacts	9	<b>Appendix B: Climate-related risks and opportunities and anticipated impacts identified through the scenario analysis process</b>	<b>22</b>
Mitigating potential impacts	10		
Limitations of scenario analysis	10		
Scenario analysis undertaken	10		
Key scenario assumptions	11		
Internal capital deployment and funding decision-making processes	13		
Current business model and strategy	13		
Transition plan aspects of strategy	13		
Adoption provisions	14		



# Introduction

Medical Funds Management Limited as the manager of MAS Investment Funds (the Scheme) is pleased to present these climate-related disclosures under the Aotearoa New Zealand Climate Standards (the Standards). These Standards are based on the International Task Force on Climate-Related Financial Disclosures (TCFD) framework.

This is the Scheme's second report under the Standards. The reporting is designed to provide both existing and potential investors with climate-related information, including the risks and opportunities for investments presented by rising temperatures, climate-related policy, and emerging technologies in our changing world.

The reporting seeks to underscore how the Scheme manages climate-related risks and opportunities. It does so by building on its first report as it continues to monitor and adjust how it thinks about, and reacts to, climate change. This report outlines how the Scheme considers transition planning as part of its investment strategy to respond to climate-related risks and opportunities. Being an active manager and having flexibility to adapt to new events and information is a core tenet of this strategy.

The report aims to provide existing and potential investors with an understanding of the Scheme's climate-related governance, strategy and risk management processes. The report sets out how we are thinking about the current impacts of climate change on the Funds within the Scheme, the future climate-related risks and opportunities we have identified, the variety of tools and methods in place to manage risk, and the environmental, social and governance (ESG) factors incorporated in our investment decision-making processes. For example, our approach to fossil fuel exclusions.

The task of climate reporting is inherently fraught with uncertainties, stemming from the evolving nature of climate science, the variability of data quality, and the broader global political landscape. We address these uncertainties by following a consistent approach to last year's report, and by highlighting the limitations and assumptions throughout. As part of our commitment to good governance and transparency, further information such as the MAS Responsible Investment Policy is available at: [mas.co.nz/investmentfunds](https://mas.co.nz/investmentfunds).

Approved on behalf of the Medical Funds Management Limited Board on 8 July 2025.



**Brett Sutton**  
Director



**Brendan O'Donovan**  
Director

## Reporting entity

Medical Funds Management Limited (MFM) is a climate-reporting entity (CRE) under the Financial Markets Conduct Act 2013 (FMCA). The Scheme is managed by MFM (the Manager). MFM is a wholly owned subsidiary of Medical Assurance Society New Zealand Limited (MAS). As such, there are references in this report to the MAS Group, to refer to MAS and all related entities.

As the liabilities of the Manager and the Scheme are not limited to a separate fund, these climate-related disclosures have been completed in relation to the Scheme at a Scheme level<sup>1</sup>. In order to provide useful information to users, detail has been provided on specific Funds where relevant.

Common information for each Fund within the Scheme has been presented at a Scheme level, as allowed by the Standards.

This report covers the period **1 April 2024 to 31 March 2025**.

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<sup>1</sup> FMCA S461ZC (2)(b)

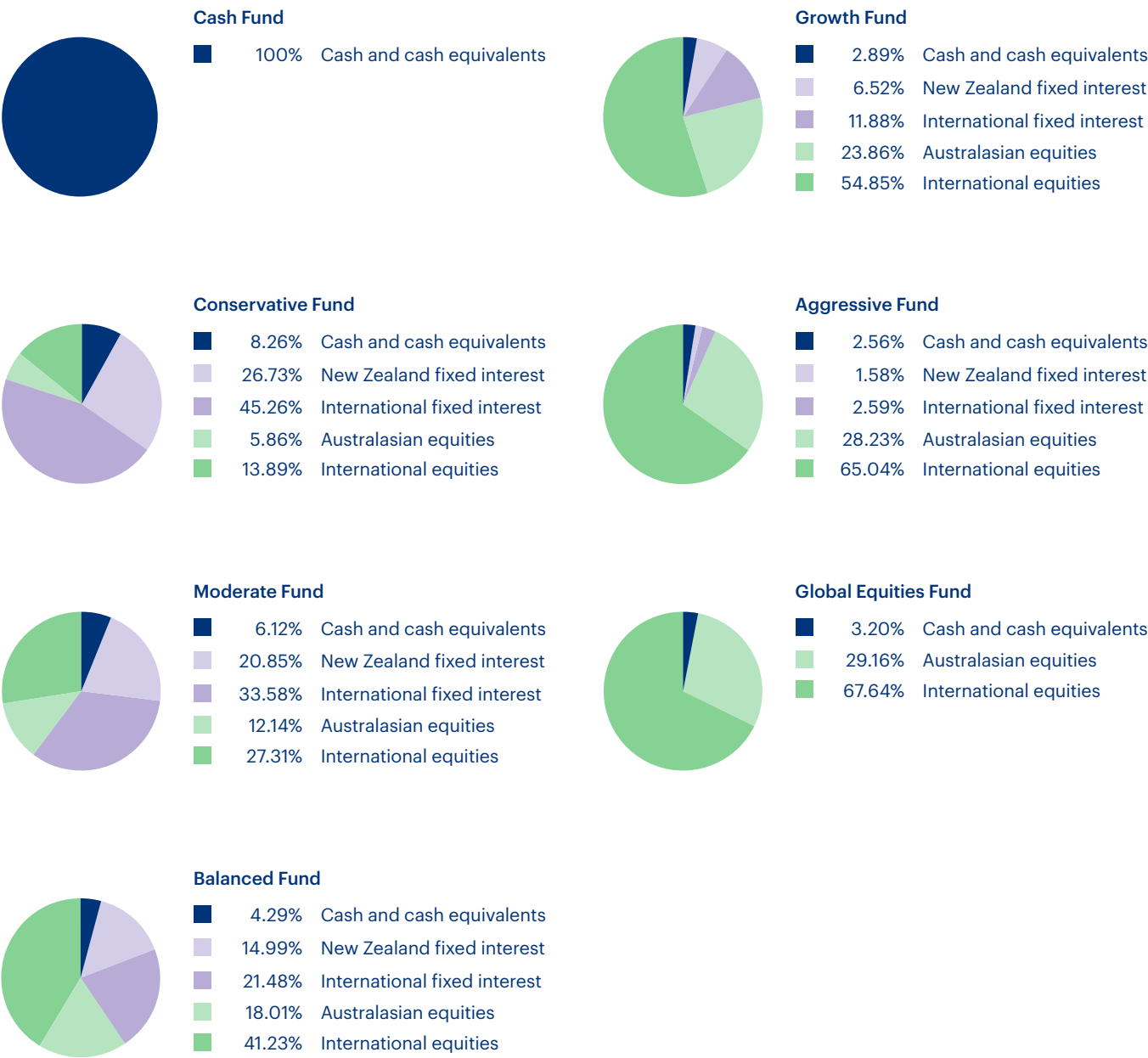
# Funds within the Scheme

The Scheme offers 7 Funds and each Fund has a different investment mix, as outlined in the following graphs. This means each Fund has a different exposure to climate-related risks and opportunities and will be exposed to different impacts. For example, the Cash Fund does not hold equities, so it is not currently exposed to the risks or opportunities from equity investments.

Users of this report are encouraged to read the Scheme’s climate-related disclosures alongside the following graphs.

Scheme documents referred to in these disclosures, including the MAS Responsible Investment Policy and the Scheme’s Statement of Investment Policy and Objectives (SIPO) can be accessed at: [mas.co.nz/investmentfunds](https://mas.co.nz/investmentfunds).

## Actual investment mix as at 31 March 2025





## Statement of compliance

These climate-related disclosures comply with the Aotearoa New Zealand Climate Standards (NZ CS 1, NZ CS 2, and NZ CS 3) issued by the External Reporting Board.

The Scheme has elected to use the following adoption provisions per NZ CS 2 in its second reporting period:

- **Adoption Provision 2:** Anticipated Financial Impacts
- **Adoption Provision 4:** Scope 3 GHG Emissions
- **Adoption Provision 5:** Comparatives for Scope 3 GHG Emissions
- **Adoption Provision 6:** Comparatives for Metrics
- **Adoption Provision 7:** Analysis of Trends

These disclosures have been prepared for our primary users, who we have identified as primarily being existing and potential investors.

## Important notice for forward looking statements

These disclosures contain forward looking statements including climate-related metrics, climate scenarios and anticipated climate impacts.

These disclosures are for informational purposes only and are general in nature. They should not be considered as a prediction of financial or non-financial performance. They are not intended to provide legal, financial or other advice or guidance.

The Manager has prepared these disclosures in good faith on what we consider a reasonable basis based on our current knowledge, our view as to the most suitable methodologies to use, and the information available to us at the time of preparing them. Given the data limitations and inherent uncertainty of carrying out scenario analysis, readers should be aware that there are known and unknown risks and uncertainties that could mean results, performance or events, may differ materially from those set out or implied.

Climate statement preparation is a rapidly evolving area. We anticipate that some of the forward-looking statements made in these disclosures may be updated or amended in subsequent years as more complete data becomes available and methodologies evolve. However, the Manager does not represent that it will revise or update these disclosures in any particular circumstances occurring after this report is published.



# Governance

## Governance body

The Medical Funds Management Limited Board (the MFM Board) is the governance body responsible for oversight of climate-related risks and opportunities. The MFM Board is supported in this regard by 2 committees – the Investment Committee (IC) and Audit and Risk Committee (ARC). These committees play a support role in engaging with Management on climate-related risks and opportunities and other associated areas such as reviewing the MAS Responsible Investment Policy and providing recommendations to the MFM Board as required. The MFM Board generally meets 6 times per year, while the IC and ARC generally meet quarterly.

## Processes and frequency

The MFM Board is kept informed about climate-related risks and opportunities at MFM Board meetings including dedicated annual climate-related training sessions. Reporting from Management is also provided.

Climate-related risks and opportunities are standing ARC and IC agenda items, and reports are presented as standalone items on a 6-monthly basis to the ARC, and quarterly to the IC. Climate-related risks and opportunities are also regularly discussed as part of other agenda items. For example, climate risk is covered at an enterprise level across the MAS Group in the Group Risk reporting to the ARC, and in assessing investment risk more generally at IC meetings.

All ARC and IC minutes are provided to the MFM Board. These committees provide specialist expertise and oversight to assist the MFM Board in performing its responsibilities.

## Skills and competencies

The MFM Board receives climate-training sessions annually and continues to grow competencies through discussion of climate-related reporting provided by Management.

The MFM Board maintains a general skills matrix to ensure it has the appropriate governance skills and competencies available and undertakes external performance reviews every 4 years.

Directors also keep up to date with the latest guidance and resources on governance, including specific climate-related risk governance.

## Implementation of investment strategy

The MFM Board considers climate-related risks and opportunities when developing and overseeing implementation of the Scheme's investment strategy.

Investment Beliefs underpin both the Scheme's general investment objectives and the specific investment strategies employed. These Investment Beliefs represent a set of propositions that, while they cannot be proven, reflect current investment theory and literature, empirical evidence, investment experience, and personal judgement.

Responsible investment is included within these Investment Beliefs. We do this by incorporating environmental, social, and governance (ESG) factors including climate factors, into our investment decision making process. We believe investing responsibly can support a sustainable future.

Another Investment Belief is the importance of a robust governance framework including through setting the MAS Responsible Investment Policy.

The full Investment Beliefs are set out in the Scheme's Statement of Investment Policy and Objectives (SIPO).

The Investment Beliefs, SIPO and MAS Responsible Investment Policy are reviewed at least annually, and specialist investment managers report on investment risks and opportunities, including those related to climate, at each IC meeting. This helps inform the tactical and strategic asset allocation of the Funds in the Scheme.

## Metrics and targets for managing climate-related risks and opportunities

The MFM Board is responsible for setting metrics and targets for managing climate-related risks and opportunities. The Board is supported by the IC.

Climate-related metrics and targets for the Scheme are generally set through the MAS Responsible Investment Policy. The IC is kept informed of the implementation of the MAS Responsible Investment Policy through reporting from Management and specialist investment managers.

Climate-related performance metrics are not incorporated into remuneration policies.

Examples may include, but are not limited to, how they consider climate change, if they have suitable resources to appropriately consider ESG factors, and which responsible investment industry associations they have joined.

The MAS Responsible Investment Policy sets out the approach to responsible investment including any exceptions.

There is structured engagement between governance and Management functions on climate-related risks and opportunities, through reporting to the MFM Board, IC and ARC, and attendance at governance meetings by Management representatives to present this reporting and address questions.

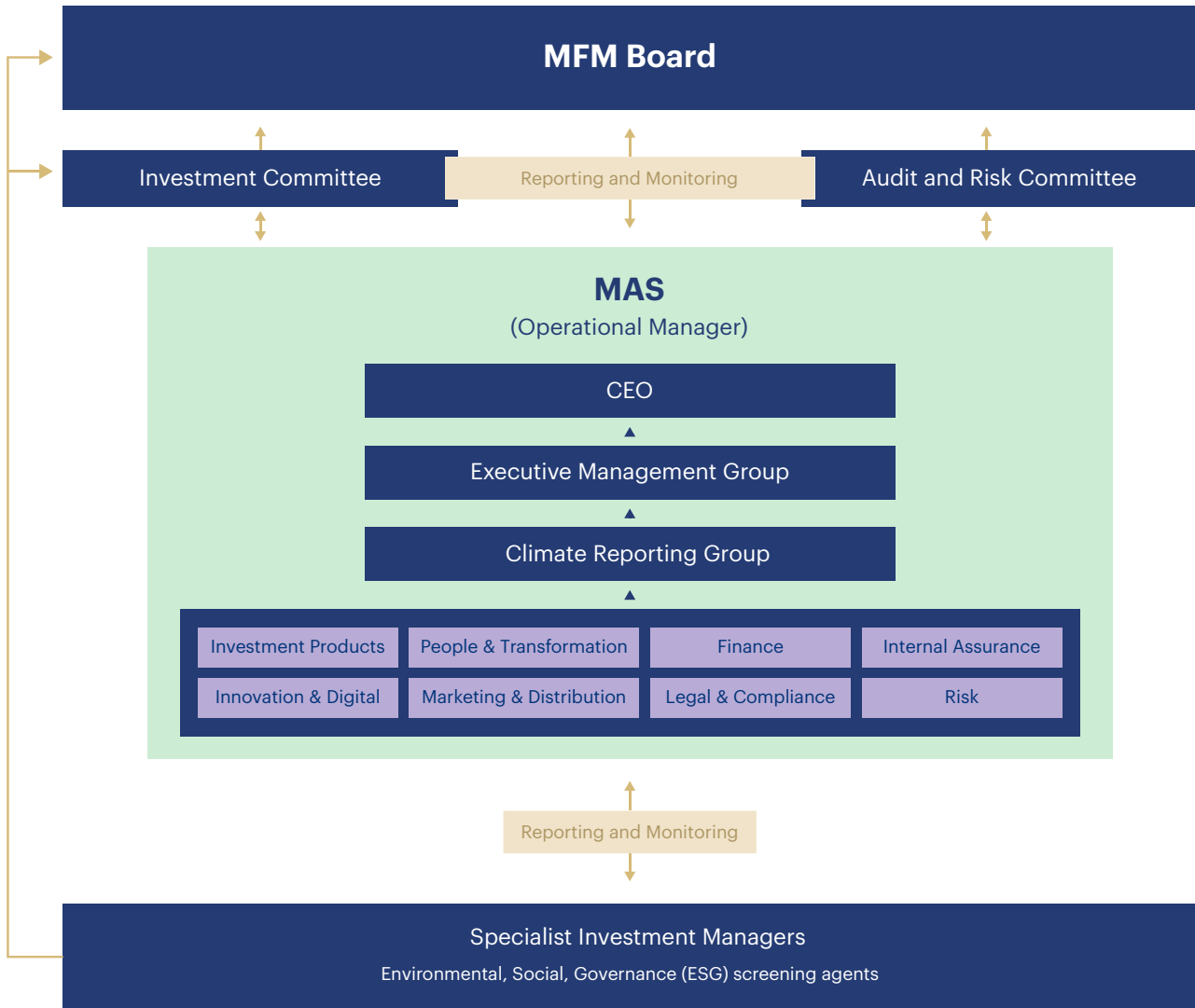
## Management's role

Climate-related responsibilities are assigned to management-level positions and committees as shown below.

- The Chief Executive Officer (CEO) has overall responsibility for managing climate-related risks and opportunities. The CEO is responsible for monitoring the MAS Responsible Investment Policy and reporting to the IC.
- The Chief Finance and Risk Officer (CFRO) is responsible for review and oversight of climate-related disclosures reporting.
- The Climate Reporting Group (CRG) is responsible for preparing climate-related disclosures. The CRG is comprised of members of the Investment Products, Finance, Risk, Legal and Compliance teams and plays a key role in ensuring climate-related risks and opportunities are considered, with assistance from specialist investment managers.

Additionally, we have assigned climate-related responsibilities to our specialist investment managers. We provide them with the MAS Responsible Investment Policy and require them to incorporate ESG factors, including climate factors, into the investment decision making process. Management is responsible for reviewing their ESG capabilities on a regular basis and qualitatively assessing their responsible investing approach (including climate) and integration into the investment process.

## Organisational structure



Management is informed about, makes decisions on, and monitors climate-related risks and opportunities through:

- ongoing monitoring and scanning of the external environment
- reports and updates from relevant agencies, regulators, industry bodies and professional firms
- quarterly specialist investment manager reporting on ESG/responsible investment initiatives (including climate) provided to Management and the IC
- monitoring and reporting as part of the enterprise-level Group Risk Report
- formal annual review cycles for the MAS Responsible Investment Policy, SIPO and other related policies and documents
- Internal Assurance advisory oversight and quarterly updates to ARC.



# Strategy

## Current physical and transition impacts

The trend of rising temperatures continued over the last year, with 2024 the warmest year on record dating back to 1850<sup>2</sup>. This has contributed to the increase in weather-related events over the year ended 31 March 2025. Large events included the January 2025 California wildfires, Hurricanes Helene and Milton (United States), Cyclone Alfred (Australia), seasonal floods (China) and Typhoon Yagi (Asia). New Zealand (where there is a concentrated exposure to investments) experienced relatively benign weather conditions for a second reporting year in a row, as Cyclone Gabrielle and the Auckland Anniversary floods fell outside reporting periods. Events such as the Otago floods in October and droughts across New Zealand in early 2025, were isolated in their impact and were not assessed to have a material impact on the Funds.

Other impacts on the Funds are considered to be from uninsured losses, exposure to losses through holdings in insurance companies, and rising insurance costs for companies and individuals. This leads to both a decrease in profits and decrease in disposable income, resulting in a drop in expenditure on consumables. There is also a rising risk of a pull-back in insurance coverage – either through increased deductibles, limits on replacement costs, or a withdrawal from offering coverage altogether.

Local and central governments (which the Funds have exposures to through bonds) are also facing infrastructure damage and rising insurance costs, and potential bailout costs of failed insurers. For example, Wellington City Council which borrows most of its debt from the NZ Local Government Funding Agency (bonds of which most of the Funds have exposure to), states “Insurance premiums continue to rise while access to insurance for many of Council’s assets is becoming more difficult”.<sup>3</sup>

In January 2025, an Executive Order was signed to withdraw the United States from the Paris Agreement under the United Nations Framework Convention on Climate Change. The transition impacts of the withdrawal are not yet known with certainty, but

could be wide reaching, for instance slowing the transition to renewable energy.

Holdings in the large technology companies have been making significant strides in addressing climate impacts. For example, Apple Inc reported a reduction in greenhouse gas emissions by over 55% since 2015, aligned with a broader goal of achieving carbon neutrality across its entire value chain by 2030<sup>4</sup>. Similarly, Nvidia increased the amount of its renewable energy use to 76% and continued to make advancements in more energy efficient computer chips that significantly reduce power consumption<sup>5</sup>. These initiatives typically result in lower costs; however, we note that the impacts on the share prices are not possible to be separated out from other broader economic risks and opportunities.

## Issues and uncertainties of assessing current impacts

We note the complexity and judgement involved in describing how climate-related impacts have affected the Funds within the Scheme. The total value of the Funds is determined by the aggregate value of the multiple cash, equities, and fixed interest assets within each Fund.

Both climate-related and non-climate related impacts affect these asset values. There is significant complexity and judgement not only in separating these impacts but also quantifying any price movement attributable to climate change. Data and information challenges also exist.

At an individual asset level, financial impacts of a realised climate risk may be commercially sensitive, or not known, analysed and reported in a timely manner, or too complex to quantify. This may reduce the market impact, i.e. price movement, which is the relevant factor in terms of current impacts on the Funds.

A particular issue with impact reporting for the Funds is that increasingly, the key sources of information are the climate-related disclosures of the organisations invested in. However, these may only become available post-reporting period.

<sup>2</sup> [Gallagher Re Natural Catastrophe and Climate Report 2024 | GallagherRe](#)

<sup>3</sup> [Wellington City Council Financial Strategy Draft 2024-34 Long-term Plan Amendment](#)

<sup>4</sup> [Apple cuts greenhouse gas emissions in half - Apple \(NZ\)](#)

<sup>5</sup> [Corporate Sustainability | NVIDIA](#)

Due to the complexity and uncertainty outlined above, the Scheme is currently unable to disclose quantitative financial information relating to physical and transition impacts. This may change in future years as climate reporting and data improves both domestically and internationally.

In the previous reporting period, a materiality approach with a focus on the top 10 Fund exposures was used to assess current impacts. Given this is a new and evolving area, we continue to refine our approach and during the current reporting period, a wider scope was used in assessing impacts. This included implementing a new process to meet quarterly with our specialist investment managers to identify and discuss potential impacts on investments held by the Funds.

## Mitigating potential impacts

The Funds invest in a diversified range of underlying investments to mitigate the impact of risks, including climate-related risk. Diversification by Fund is firstly at an asset class level.

The Funds also seek to reduce risk by purchasing investments across multiple geographic locations, and across multiple different sectors.

Almost all assets are tradeable, either on secondary market exchanges or through over-the-counter markets. This means that market values at any point in time reflect not only a range in views on current and future valuations, but ever-changing market sentiments.

This can also mean that where there is asset price movement directly attributable to climate-related events, price recovery post-event can dilute or completely offset any impact experienced during a reporting period.

As well as diversification across asset classes, sector and geography, multiple individual companies may also be invested in within each sector, further diluting the materiality of any impact.

The specialist investment managers of a Fund may also separately assess and form a view on any impact of a climate event on an asset. This may lead to divestment to mitigate potential negative price movement of the Fund.

## Limitations of scenario analysis

Scenario analysis is a process for exploring the effects of a range of plausible future events. Climate scenarios must be plausible and challenging, but the scenarios, assumptions, and data sets used are not intended to be forecasts or predictions of the future. For further information, refer to [Important notice for forward looking statements](#).

## Scenario analysis undertaken

We have undertaken scenario analysis to help identify the Scheme's climate-related risks and opportunities and better understand the resilience of the Scheme's business model and investment strategy.

We contributed to the development of scenarios for the financial services sector in 2022-2023. This project was led by the Financial Services Council (FSC) and facilitated by EY. The sector-level scenarios report was released in 2023 and can be accessed here: [Climate scenario narratives for the financial services sector](#). The sector-level scenarios have been used by the Scheme in our first and second reporting periods.

During 2025, we undertook 2 scenario analysis workshops, which involved members of the Executive team, Climate Reporting Group, and Internal Assurance team. We also engaged JBWere, Nikko Asset Management and Harbour Asset Management as external stakeholders in the scenario analysis process.

We followed the Task Force on Climate-related Financial Disclosures (the TCFD) Six Step Scenario Analysis Process:

1. Engage stakeholders and prepare an effective group.
2. Define the problem.
3. Identify driving forces and critical uncertainties.
4. Select temperature outcomes and pathways.
5. Draft narratives and quantify<sup>6</sup>.
6. Assess strategic resilience.

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<sup>6</sup> Scenario analysis participants agreed during the workshops that scenario analysis would be undertaken qualitatively in the second reporting year. Quantitative modelling was not undertaken.

The first workshop focused on the construction of the 3 climate-related scenarios, while the second workshop focused on the analysis. The scenarios align with the financial services sector-level scenarios:

1. Orderly 1.5 degrees Celsius scenario.
2. Too Little Too Late >2.0 degrees Celsius scenario.
3. Hothouse >3.0 degrees Celsius scenario.

### Orderly

The Orderly scenario represents collective action towards a low carbon global economy. In this scenario, there are steady and constant societal changes related to technology, policy, and behaviour to support the transition to a lower emissions economy. This is matched by an increasing carbon price that reinforces low carbon behaviour change. The coordinated and timely action around the world to curb greenhouse gases prevents the worst predicted impacts of climate change. However, the long-term chronic impacts from historic greenhouse gas (GHG) emissions still occur, although not severely. Overall, based on the literature review and stakeholder engagement, this scenario represents a medium level of transition risk and a low level of physical risk relative to the other scenarios<sup>7</sup>.

### Too Little Too Late

The Too Little Too Late scenario represents a misaligned and delayed transition to a low carbon economy between different parts of the world. In this scenario, some countries are early movers on the transition to a low emissions economy, introducing policy that brings about net zero emissions by 2050. However, in other parts of the world there is very little action towards a low emissions future with fossil fuelled development continuing throughout much of the remaining first half of the century. From mid-century, global efforts to address climate change begin to align and exceed those by the early movers.

Large increases in carbon prices will drive a rapid improvement in low emissions technology efficacy and uptake. This shift is partly driven by the increasing evidence and awareness of the social, economic, and environmental degradation caused by a continued increase in fossil fuelled development.

Despite making a concerted effort to reduce emissions and move to a low emissions economy

at mid-century, the changes come too late to prevent wide ranging acute and chronic physical climate impacts. Overall, based on the literature review and stakeholder engagement, this scenario represents a high level of transition risk compared to the other scenarios and a medium level of physical risk compared to the other scenarios<sup>8</sup>.

### Hothouse

The Hothouse scenario represents minimal action towards a low carbon global transition. Despite increasing levels of social, economic and environmental degradation, there is little shift in social and political traction towards a low emissions future. As a result, there is little behaviour change and a lack of low carbon emissions technology development. This leads to a continued and increasing level of fossil fuel use, strong globalisation, increasing consumption and materialism.

The impact of these activities continues to drive emissions higher throughout the remaining twenty-first century leading to significant materialisation of acute and chronic physical risks. In the first half of the twenty-first century this physical risk sees increasing severity of extreme weather, which is accompanied by rising sea levels in the latter half of the twenty-first century. This threatens coastal developments worldwide, placing pressure on global relations. Overall, this scenario represents a low transition risk and a high level of physical risk when compared to the other scenarios<sup>9</sup>. Consistent time horizons have been used for scenario analysis, climate-risk and opportunity identification and climate-risk management.

## Key scenario assumptions

The table in [Appendix A](#) summarises the key assumptions and relevant international and domestic data sets used. Carbon sequestration from afforestation and nature-based solutions assumptions were not included in the scenarios. The scope of operations covered is the Scheme's investments. Operational aspects of the value chain were excluded from the scope, refer to [Excluded parts of the value chain](#) for further information.

The Orderly scenario shows a steady steep decline in global emissions. This reduction leads to net emissions being less than zero in 2050.

<sup>7</sup> Climate scenario narratives for the financial services sector, EY and FSC, pages 29–37.

<sup>8</sup> Climate scenario narratives for the financial services sector, EY and FSC, pages 38–48.

<sup>9</sup> Climate scenario narratives for the financial services sector, EY and FSC, pages 49–59.

The Too Little Too Late scenario shows a steady decline in global emissions. Net emissions in 2050 are significantly higher than zero. The Hothouse scenario shows minimal change in global emissions, with a slight increase projected between 2020 to 2025, and then gradually decreasing. However, net emissions in 2050 are well short of net zero (and higher than under other scenarios).

The scenarios chosen are relevant and appropriate to assessing the resilience of our business model and investment strategy to climate-related risks and opportunities. We considered the requirements of the Standards to analyse a 1.5°C scenario, a 3°C or greater scenario, and a third scenario. We were involved in the development and review of the financial services sector-level scenarios and have chosen to align the sector scenarios for consistency and comparability. The limitations of using the sector-level scenarios have been considered. The Orderly and Hothouse scenarios are commonly used by fund managers internationally. The Too Little Too Late scenario is viewed as being a more realistic New Zealand scenario compared to the Disorderly scenario and is consistent with other organisations in the financial services sector.

The plausibility of the Orderly scenario was considered against current emissions forecasts and assessed as being appropriate to use for the purposes of scenario analysis, given the reporting requirements to analyse a 1.5°C scenario and the long-term nature of the 1.5°C threshold.

Regulatory guidance was referred to throughout the development of our scenario narratives. In our first reporting period, sector-level scenario

narratives were modified for specific analysis undertaken during workshops. This included adding further detail that ensured the scenario narratives were relevant to the Scheme's Funds and adding descriptions of driving forces/critical uncertainties identified during workshops. In our second reporting period, the modifications to the scenario narratives were reviewed and updated to ensure they remained relevant.

Scenario analysis was undertaken as a standalone analysis process and was separate from the Manager's wider strategy development processes, and that of the Schemes and their Funds offered by the Manager.

In our first reporting period, a detailed report on the scenario analysis process, including key climate-related risks and opportunities identified and final scenario narratives, was presented to the IC to review and endorse, and to the MFM Board to approve. This report was reviewed by members of the Climate Reporting Group and Executive team.

In our second reporting period, a report on the scenario analysis process undertaken was provided to the IC to review and endorse, and the MFM Board to approve. As there had not been material changes to the scenario narratives, this report focused on the process undertaken to review and update the climate scenarios and any changes identified to our climate-risks and opportunities and resilience assessment.

A summary of climate-related risks and opportunities identified through the scenario analysis process, and the anticipated impacts of these is provided in [Appendix B](#).

## Time horizons for scenario analysis and risks and opportunity identification

	Short term	Medium term	Long term
<b>Time horizon</b>	1–3 years	5–10 years	30+ years
<b>Year relative to 2025</b>	2026–2028	2030–2035	2055+
<b>Rationale for selection</b>	The short term fits with the Scheme's strategic planning horizon (considering current investment market cycles and tactical positioning) and suggested minimum investment timeframes for the Cash and Conservative Funds.	The medium term is generally outside strategic planning horizons. However, it is used when considering thematic investment decisions and some fixed interest investments and aligned with suggested minimum investment timeframes for Moderate, Balanced, Growth, Aggressive and Global Equities Funds (5–12 years).	The long term is not used for strategic planning, however, is aligned with members' long-term investment horizons (i.e. retirement).



## Internal capital deployment and funding decision-making processes

The IC considers climate-related risks and opportunities in defining its responsible investment approach. This serves as an input to decision-making processes when considering where investment capital is deployed by the Scheme. We require our specialist investment managers to incorporate ESG factors, including climate factors, into their investment decision making process. For a portion of international equities, we invest in a customised strategy that combines the MSCI Climate Paris Aligned Index Methodology, designed to support reduced exposure to climate risks, with MAS's exclusions. These exclusions aim to remove companies that generate 10% or more of their revenues from fossil fuels. Refer to the MAS Responsible Investment Policy for further information.

## Current business model and strategy

Medical Assurance Society New Zealand Limited (MAS) is a New Zealand membership-based insurance and investment company. Medical Funds Management Limited (MFM) is the manager of the MAS Schemes (which include the underlying Funds) and is a wholly owned subsidiary of MAS.

The Funds in the Scheme are actively managed. While investment markets are competitive, we believe active management can add value for investors. Our active management approach encompasses both security selection and tactical asset allocation. This means a team of professionals make investment decisions that seek to outperform the market and deliver higher returns for our Members. We recognise that not every manager has the necessary capabilities and resources across all asset classes. This is why we select investment managers that are specialists in their field to actively manage each asset class and make appropriate investment decisions.

There are 7 Funds within the Scheme. Each Fund has different levels of risk and provides different potential returns. Having a range of Funds provides investors with choices to suit their individual risk tolerances. The performance of each Fund is measured against a market index. The market index for a Fund comprises the benchmark index return of each of the asset classes the Fund invests in, weighted by the Fund's benchmark asset allocation to each asset class.

Given our approach includes ESG factors in the investment process, we believe we are well positioned to identify climate-related trends or concerns that may impact on the future value of underlying securities within each Fund. As an active manager, we have the capability to adapt the themes and underlying securities to take advantage, or reduce the risk of, identified climate-related trends or concerns.

## Transition plan aspects of strategy

The transition plan aspects of the Scheme's investment strategy are focused on:

- **Active management:** Our active management approach encompasses both security selection and tactical asset allocation. This means a team of professionals make investment decisions that seek to outperform the market and deliver higher returns for our members. We require our specialist investment managers to incorporate ESG factors, including climate factors, into their investment decision-making process.
- **Diversification:** We believe diversification across and within asset classes and sectors reduces risk and volatility of returns.
- **Engagement:** As an active steward of members' money, we endeavour to vote on all shareholdings via our proxy voting agent.
- **Fossil fuel exclusions.**
- **MSCI Climate Paris Aligned Index Methodology.**
- **Segregated mandates:** The nature of our investment mandates for Australasian and international equities, New Zealand fixed interest and cash asset classes, mean we can set the investment strategy which guides the investment decisions made by our specialist investment managers.

Investment decision making processes consider the transition plan aspects of investment strategy described above.



The following are ways that the investment strategy might change in the future to address climate-related risks and opportunities.

- By making conscious decisions on where to invest or divest, through active management of the Scheme's portfolio.
- Through the annual review of the MAS Responsible Investment Policy to consider for example a pivot away from climate-related risks and towards climate-related opportunities.
- Through regular review of our specialist investment managers, including consideration of their ESG capabilities.
- Through monitoring of the tactical asset allocation for each Fund and annual review of the benchmark asset allocation for each Fund.

## Adoption provisions

The Scheme has elected to use Adoption Provision 2: Anticipated Financial Impacts. This exempts the Scheme in its first and second reporting period from disclosing:

- the anticipated financial impacts of climate-related risks and opportunities reasonably expected for the Scheme
- a description of the time horizons over which the anticipated financial impacts of climate-related risks and opportunities could reasonably be expected to occur; and
- an explanation of why it is unable to disclose quantitative information.



# Risk management

## Integration of climate-related risks with overall risk management

The Scheme's overall risk management processes are based around a strong governance framework; with Investment Beliefs, SIPO, and MAS Responsible Investment Policy all reviewed on at least an annual basis. Climate-related risks are considered when setting investment strategy.

Where company-specific research is undertaken (for example, research and analysis), climate-related risk considerations may be integrated into overall due diligence assessments. This allows investment managers to assess qualitative risks and opportunities alongside information and data related to financial information. For example, sales and balance sheet strength.

At an investment management level, this information feeds into conventional risk management tools and processes such as diversification, understanding concentration risk and credit risk assessments.

At a strategic level, this information feeds into setting the Investment Beliefs and MAS Responsible Investment Policy. This includes potentially excluding securities that negatively affect climate, such as companies that generate more than 10% of their revenues from the extraction of fossil fuels.

Ongoing risk reporting (to the Investment Committee (IC), Audit and Risk Committee (ARC) and MFM Board) incorporates and provides overarching monitoring of climate-related risks and opportunities.

## Tools and methods

The following tools and methods are used for identifying, assessing, and managing the Scheme's known climate-related risks.

### Investment Beliefs and strategy

We have built a strategic framework to consider risks. The framework for the Funds is articulated through our Investment Beliefs, with climate captured through our responsible investment belief: "Investing responsibly can support a sustainable future".

### Assessment of investment manager capabilities

We use specialist investment managers to manage the investments held by the Funds. We require our specialist investment managers to incorporate

ESG factors, including climate factors, into their investment decision making process.

We consider the investment manager's ESG capabilities (including climate) when conducting a manager selection process. Once appointed, we continue to review their capabilities on a regular basis. We qualitatively assess the manager's responsible investing approach and integration into its investment process.

Examples may include, but are not limited to, how they consider climate change, if they have suitable resources to appropriately consider ESG factors, and which responsible investment industry associations they have joined.

### Investment management

Our specialist investment managers actively manage investments held in our Funds, by making investment decisions that aim to outperform the market.

This may include:

- selection of macro-level investment strategies (including bespoke indices within asset classes)
- actively researching and analysing potential and current investments
- having meetings and discussions; and
- assessing third-party data on environmental and climate metrics in relation to current and/or potential investment opportunities.

### Use of environmental, social, and governance (ESG) data

We have introduced processes designed to help ensure the investment manager's ESG assessment is reflected in the investment portfolio. Where possible, this quantitative analysis compares the specialist investment manager's investment selections to the benchmark of the asset class and assesses ESG factors such as exposure to green revenues, for example, alternative energy, and energy efficiency. The degree of relevance and materiality for the quantitative analysis can vary across different asset classes.

### Scenario analysis

We undertake a scenario analysis process to help identify and assess the Scheme's climate-related risks.

We identify sources of climate-related risk, potential areas of impact, possible events and their potential

consequences. We generate a comprehensive list of climate-related risks through scenario analysis, meetings and workshops with internal and external stakeholders. We assess these risks through considering their source, likelihood and consequence.

**Application of exclusion screens**

We manage aspects of climate-related risks through screening and exclusions. Our exclusion criteria are designed to be consistent with our guiding principles stated in the MAS Responsible Investment Policy.

**MSCI Climate Paris Aligned Index Methodology**

On top of screening for exclusions, a portion (57% benchmark) of our international equities, is invested in a customised strategy that combines the MSCI Climate Paris Aligned Index Methodology with MAS’ exclusions. Refer to [Assets aligned with climate-related risks and opportunities](#) for the percentage invested for each Fund using the MSCI Climate Paris Aligned Index Methodology.

The MAS Responsible Investment Policy contains more information on our approach to exclusion screens and ESG integration.

**Diversification and divestment**

We manage risk through investment diversification. We believe diversification across and within asset classes and sectors reduces risk and volatility of returns.

The specialist investment managers may pivot the Funds’ investment holdings at any time if a climate-related risk is identified and assessed as material.

**Time horizons**

The following time horizons are considered in identifying, assessing and managing climate-related risks. The timeframes are rolling and adjusted each year.

Short term	1–3 years	2026–2028
Medium term	5–10 years	2030–2035
Long term	30+ years	2055+

**Short-term risk management**

Considering the dynamic nature of investment markets, short-term risk across investment portfolios is managed on a daily basis. Tactical considerations may be made to up-weight or down-weight asset classes, sectors, or individual investments based

on a range of market conditions. This includes central bank and Government policy, sector trends, geopolitical risk and company-specific information. This may include exposure to climate-specific factors such as acute physical impacts from severe and intense weather events.

**Medium-term risk management**

Medium-term risk management incorporates quarterly IC meetings and market scans. We review our Investment Beliefs and MAS Responsible Investment Policy, which may consider climate-related risks, annually.

**Longer-term risk management**

Longer-term risk management is used to assess strategic resilience and considers changing investor expectations, revisiting climate-change scenarios and research. It reviews factors such as fundamental changes in the regulatory environment, wholesale climate change, or industry changing technological breakthroughs.

**Excluded parts of the value chain**

The processes described focus on the risk management processes relating to the Scheme’s investments and do not include the ‘operational’ aspects of the value chain. ‘Operational’ is used to describe the services relied upon to deliver the Scheme to members.

These services include:

- product management, which includes maintaining the offer and ensuring it meets all compliance obligations
- fund pricing and tax calculations
- maintaining the investor registry
- dealing with day-to-day transaction requests.

We have considered the climate-related risks that could impact the operational aspects of the value chain and do not consider them material to users of this report. Rather, the report focuses on the Scheme’s investments, given these both make up the significant part of the value chain, and are considered to be of most relevance for user assessment of climate-related risk and opportunities.

## Frequency of assessment

Given the Funds are actively managed, the assessment of climate-related risk is ongoing. The following processes are undertaken at agreed frequencies.

Market scans are carried out continuously and consider, for example:

- climate-related effects such as drought or flood
- supply chain disruption on economic conditions; or
- changes in Government policy.

The MAS Responsible Investment Policy sets out the approach to screening investments. The MAS Responsible Investment Policy and SIPO (including Investment Beliefs) are reviewed at least annually.

Scenario analysis processes are undertaken annually.

Reporting on climate-related risks is provided quarterly to the IC, 6-monthly to the ARC and regularly to the MFM Board (who also receive records of all IC and ARC meetings).

## Processes for prioritising climate-related risks

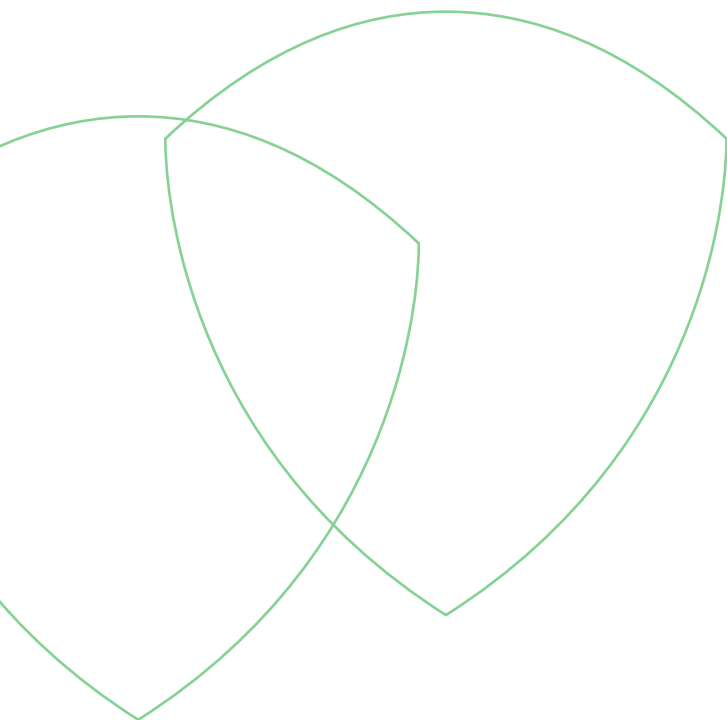
Climate-related risk is considered alongside other types of risks as part of the Scheme's overall risk management processes. Our process for risk evaluation considers the frequency and impact of climate-related risks relative to other types of risks.

Climate-related risk is considered as both a standalone risk and inter-related with other risks. For example, as a root cause for damage and loss events related to extreme weather.

Climate-related risks have been prioritised as standing agenda items at the ARC and IC. Additionally, the Climate Reporting Group is a cross-functional, internal management team focused on climate-related reporting.

We require our specialist investment managers to incorporate ESG factors, including climate factors, into their investment decision making process.

Climate-related risk is a consideration in the formation and ongoing assessment of the MAS Responsible Investment Policy. This in part is a mitigant through exclusions criteria, strategies to reduce exposure to climate risk, and increased exposure to positive climate themes.



# Metrics and targets

## Adoption Provisions

The Scheme has elected to use:

- **Adoption Provision 4:** Scope 3 GHG emissions, which exempts the Scheme from disclosing gross Scope 3 GHG emissions in tCO<sub>2</sub>e.
- **Adoption Provision 5:** Comparatives for Scope 3 GHG Emissions. This exempts the Scheme from disclosing comparative information for Scope 3 GHG emissions.
- **Adoption Provision 6:** Comparatives for Metrics. This permits the Scheme to provide one year of comparative information for metrics (instead of 2 years).
- **Adoption Provision 7:** Analysis of Trends. This exempts the Scheme from disclosing an analysis of the main trends evident from comparing metrics across reporting periods.

## Gross greenhouse gas (GHG) emissions

Scope 1 and 2 GHG emissions are direct emissions from sources owned or controlled by an entity, and indirect emissions from consumption of purchased electricity, heat or steam. Scope 1 and 2 GHG emissions do not pertain to MIS Manager disclosures because S461O of the Financial Markets Conduct Act 2013 defines MIS Managers as climate reporting entities in respect of the scheme they manage, therefore no disclosures are required.

Scope 3 GHG emissions are other indirect GHG emissions not covered in Scope 2 that occur in the value chain of the Scheme, including the investments held by the Funds. The Funds' investments are the most significant source of Scope 3 GHG emissions. The operational control GHG emissions consolidation approach is used.

## Percentage of assets vulnerable to transition and physical risks

100% of the Scheme's investments could be exposed to transition and physical risks to some extent (2024: 100%). The Funds within the Scheme invest in asset classes such as cash and cash equivalents, fixed interest and equities, with each Fund having a different asset allocation. As outlined in the [Strategy](#) section of this report, the assets

within these Funds are exposed to transition and physical risks of different source, likelihood and consequence.

As this is the second report we have prepared and the Scheme has over 1,000 underlying investments, this is a qualitative disclosure. We expect the way we disclose over time to evolve and become more granular.

## Assets aligned with climate-related risks and opportunities

For ESG integration a portion (57% benchmark, 2024: 75% benchmark) of our international equities is invested in a customised strategy that combines the MSCI Climate Paris Aligned Index Methodology with MAS's exclusions. The benchmark changed in December 2024 due to the introduction of a new Direct Global Equities strategy for the international equities portfolio.

The MSCI Climate Paris Aligned Index Methodology strategy seeks to reduce exposure to climate risk and increase exposure to positive climate themes, while using an optimisation process to minimise the tracking error relative to the parent index – the MSCI All Country World Total Return Index. The MAS Responsible Investment Policy further describes our approach and its limitations. The percentage invested by each Fund is shown in the table below.

Fund name	As at 31 March 2025	As at 31 March 2024
Cash Fund	0.00%	0.00%
Conservative Fund	7.94%	9.79%
Moderate Fund	15.61%	19.21%
Balanced Fund	23.57%	28.84%
Growth Fund	31.35%	38.42%
Aggressive Fund	37.17%	42.98%
Global Equities Fund	38.66%	47.60%

The Scheme does not use an internal emissions price (2024: no change). Management remuneration is not linked to climate-related risks and opportunities in the current period (2024: no change).



## Metrics used to measure and manage climate-related risks

### Fossil fuel exclusions

The Scheme does not invest in companies that generate 10% or more of their revenues from:

- the exploration, extraction, refining, or processing of oil, gas, or thermal coal
- the supply of equipment and services to oil and gas exploration
- oil, gas or coal-based power generation.

Metallurgical coal is an approved exception to this exclusion. We do not exclude companies with revenue exposure to metallurgical coal. Metallurgical coal is used as a primary ingredient in steel production and there is presently no cost-effective substitute available. Thermal coal can relatively easily be replaced by other fuel sources and constitutes the majority of all coal produced.

We do not require private equity investments to fully align with this exclusion. We assess private equity investments prior to investing. This metric has not changed from the 2024 reporting period.

Refer to the MAS Responsible Investment Policy for further information.

## Targets used to manage climate-related risks

Exclusion screens are applied at least quarterly. Any investment in a Fund that does not comply with the MAS Responsible Investment Policy in the most recent screening, will be divested as soon as reasonably practicable, usually within 4 weeks. This will take into account factors such as market liquidity. Following any changes made to the exclusion criteria, divestment will occur at the next quarterly screening or earlier if practicable.

We have set our base year as 31 March 2024 to align with our first climate-disclosures reporting period.

During the period ending 31 March 2025, investments that did not comply with the most recent screening were divested in line with the requirements of the MAS Responsible Investment Policy (2024: no change). There is no ongoing screening of private equity investments.

### Fossil fuel exclusions methodology

Our specialist investment managers use their respective ESG data analytics provider(s) to determine a company's involvements in fossil fuel activities and adopt screens that best match the exclusion. Screens cover level of involvement, category of involvement, and incorporate analysis to ensure holdings are compliant with the MAS Responsible Investment Policy. Screens are based on revenue thresholds.

For securities not covered by the screens provided by the ESG data analytics provider(s), the security either must be assessed and meet the approval of the specialist investment manager or undergo a separate assessment by the ESG data analytics provider, to ensure it meets the criteria of the MAS Responsible Investment Policy.

This report has not been independently assured.



# Appendix A: Key assumptions and relevant international and domestic data sets used in scenario analysis

**MtCO<sub>2</sub>e** – million tonnes of carbon dioxide equivalent

**BtCO<sub>2</sub>e** – billion tonnes of carbon dioxide equivalent

**CCC** – Climate Change Commission

**ETS** – Emissions Trading Scheme

**GCAM** – Global Change Assessment Model

**IEA** – International Energy Agency

**IPCC** – Intergovernmental Panel on Climate Change

**NGFS** – Network for Greening the Financial Systems

**NIWA** – National Institute of Water and Atmospheric Research

**GDP** – Gross Domestic Product

**RCP** – Representative Concentration Pathway

**SSP** – Shared Socioeconomic Pathway

	Entity	Orderly 1.5°C	Too Little Too Late >2.0°C	Hothouse >3.0°C
Global climate and socio-economic parameters	IPCC	SSP1-1.9	SSP2-4.5	SSP5-8.5
	NGFS	Net Zero 2050	NDCs	Current Policies
Global energy and emission pathway parameters	IEA	Net Zero Emissions by 2050	APS	STEPS
	NIWA	RCP2.6	RCP4.5	RCP8.5
New Zealand-specific climate parameters				
New Zealand-specific transition pathway parameters	CCC	Tailwinds	Headwinds	Current Policy Reference
Environmental outcomes by 2100 (average temperature increase)	Domestic: (NIWA)	+0.7°C (min 0.4, max 1.3)	+1.4°C (min 0.7, max 2.2)	+3.0°C (min 2.0, max 4.6)
	Global: (*SSP) / (**IPCC)	+1.4°C (min 1.0, max 1.8)*	+2.7°C (min 2.1, max 3.5)**	+4.4°C (min 3.3, max 5.7)**

	Entity	Orderly 1.5°C	Too Little Too Late >2.0°C	Hothouse >3.0°C
<b>Emission pathways (net emissions)</b>	Domestic: (CCC)	47 MtCO <sub>2</sub> e by 2030 3.8 MtCO <sub>2</sub> e by 2050	57 MtCO <sub>2</sub> e by 2030 22 MtCO <sub>2</sub> e by 2050	62 MtCO <sub>2</sub> e by 2030 35 MtCO <sub>2</sub> e by 2050
	Global: (NGFS)	Net Zero by 2050: 25.9 BtCO <sub>2</sub> e by 2030 -294.82 MtCO <sub>2</sub> e by 2050 using GCAM5.3+	National Determined Contributions (NDCs): 35.1 BtCO <sub>2</sub> e by 2030 26.7 BtCO <sub>2</sub> e by 2050 using GCAM5.3+	Current Policies (Hothouse): 38.6 BtCO <sub>2</sub> e by 2030 34.3 BtCO <sub>2</sub> e by 2050 using GCAM5.3+
<b>Economic outcomes (GDP***)</b>	Domestic: (NGFS)	NZ\$330b (-0.5%) in 2030 NZ\$485b (-0.7%) in 2050	NZ\$329b (-0.7%) in 2030 NZ\$477b (-2.3%) in 2050	NZ\$329b (-0.7%) in 2030 NZ\$475b (-2.6%) in 2050
	Global: (NGFS)	US\$176t (-1.2%) in 2030 US\$289t (2.0%) in 2050	US\$175t (-1.6%) in 2030, US\$274t (-5.1%) in 2050	US\$175t (-1.6%) in 2030 US\$273t (-5.7%) in 2050
<b>Social outcomes (population)</b>	Global: (IPCC)	8b by 2030 8.5b by 2050	8.3b by 2030 9.2b by 2050	8.2b by 2030 8.6b by 2050
<b>Policy outcomes (carbon price)</b>	Domestic ETS: (CCC)	NZ\$140 in 2030 NZ\$250 in 2050	NZ\$140 in 2030 NZ\$250 in 2050	NZ\$35 in 2030 NZ\$35 in 2050
	Global: (NGFS)	US\$124 in 2030 US\$400 in 2050	US\$34 in 2030 US\$50 in 2050	US\$6 in 2030 US\$6 in 2050
<b>Technology outcomes:</b>	Domestic: (CCC)	94% by 2030 100% by 2050	94% by 2030 98% by 2050	93% by 2030 94% by 2050
<b>Percent of Renewable Electricity of Total Electricity Produced</b>	Global: (IEA)	61% by 2030 88% by 2050	46% by 2030 71% by 2050	42% by 2030 60% by 2050
<b>Technology outcomes:</b>	Domestic: (CCC)	55% by 2030 90% by 2050	50% by 2030 80% by 2050	48% by 2030 61% by 2050
<b>Percent of Renewable Energy of Total Energy Produced</b>	Global: (IEA)	30% by 2030 67% by 2050	19% by 2030 37% by 2050	16% by 2030 26% by 2050

Key: b = billion t = trillion

\*\*\*GDP % change due to chronic physical risk, acute impacts are excluded from this figure and would further negatively impact GDP.

## Appendix B: Climate-related risks and opportunities and anticipated impacts identified through the scenario analysis process

Climate change risk comes from a variety of interacting sources including threats to physical and natural resources, regulatory requirements and technological improvements. Climate change impacts will vary across different geographic regions, industry sectors and asset classes.

The following table provides a summary of climate-related risks and opportunities identified through the scenario analysis process undertaken, and the anticipated impacts of these. A long list of risks and opportunities were identified through this process. Those considered to be most useful to readers have been disclosed.

We recommend that readers keep in mind the interrelated nature of financial markets when reviewing these risks and opportunities, and the unknown timing of climate-related risks. The anticipated impacts of climate change could lead to higher macroeconomic volatility and cause more volatility in Fund returns. However, the timing and severity of this is unknown.

Where a risk is sector specific, we have identified this. However, we note that many of the risks identified are not specific to any one sector and could impact across all sectors due to possible interactions between driving forces.

Different asset classes and Funds carry a different level of risk based on the underlying asset allocations and benchmarks. Cash and cash equivalents and fixed interest are expected to provide returns in the form of income with potential for some capital change.

Equities have the potential for higher returns over the long term compared with cash and cash equivalents and fixed interest. However, returns may fluctuate up and down and be negative on occasion. The anticipated impacts listed relate to the assets the Funds invest in and could have an impact on the performance of the Scheme.

Climate-related risks and opportunities were identified across the following time horizons.

<b>Short term (ST)</b>	1–3 years	2026–2028
<b>Medium term (MT)</b>	5–10 years	2030–2035
<b>Long term (LT)</b>	30+ years	2055+

## Appendix B continued

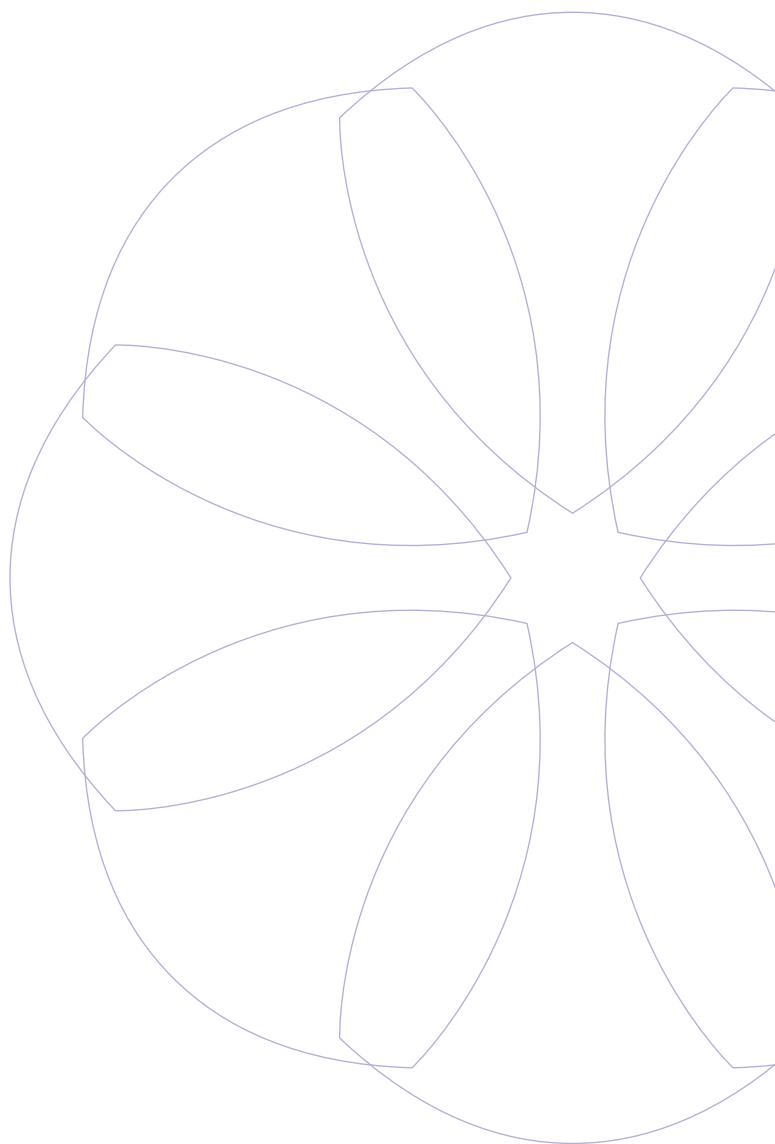
Climate-related risk/opportunity identified	Physical/ Transition	Asset class	Geography	Time horizon	Anticipated impacts of climate-related risks and opportunities reasonably expected by the Scheme
Risks					
Reputational risks to organisations. For example, due to high emissions, delayed transitions, greenwashing accusations, poor climate risk management or backlash against climate and ESG practices.	Transition	Equities Fixed Interest	Global New Zealand	ST, MT, LT	Organisations the Scheme invests in could suffer reputational damage due to their climate practices. This could impact on the company's share price, decrease market share, impact their ability to operate, decrease their access to capital or their ability to meet interest and debt repayments.
Interest rate increases due to higher inflation.	Transition	Equities Fixed Interest	Global New Zealand	MT, LT	The transition to a lower emissions economy could lead to higher and more volatile inflation. Interest rates may rise due to inflation pressure or additional Government borrowing, which could devalue bonds. A company's ability to repay higher interest rate loans could impact their ability to borrow, which could place downward pressure on share price.
Increases in credit risk.	Transition	Fixed Interest	Global New Zealand	MT, LT	The credit risk of the Scheme's fixed interest holdings could increase where an organisation is heavily exposed to physical and/or transition risks, or where they are too slow in transitioning their business model to respond to climate change impacts. This can lead to the possibility of bonds not being repaid or defaults on bond interest payments.  Physical impacts may negatively affect the credit rating of local Government bonds, which may in turn mean they fall outside the investment criteria for the Scheme.
Risk of regulatory changes.	Transition	Cash and Cash Equivalents Equities Fixed Interest	Global New Zealand	MT, LT	Regulatory changes can impact the cost of transitioning to a lower emissions economy, the timing of this transition, inflation and interest rates, or increase the risk of pecuniary penalties.
Risk that investments are mispriced for their level of climate-related risk.	Transition	Equities Fixed Interest	Global New Zealand	ST, MT, LT	Poor quality data on greenhouse gas emissions or physical climate risks, or a lack of understanding of transition risks could mean that organisations the Scheme invests in are not priced appropriately, with sudden declines in equity or bond values if risks actualise.

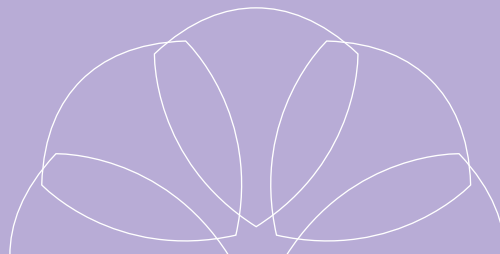


Climate-related risk/opportunity identified	Physical/ Transition	Asset class	Geography	Time horizon	Anticipated impacts of climate-related risks and opportunities reasonably expected by the Scheme
Asset damage from increases in extreme weather events.	Physical	Equities Fixed Interest	Global New Zealand	ST, MT, LT	<p>Climate related weather events could result in costs to repair land, water, and infrastructure assets, increasing the burden on the balance sheets of companies, local and central Government and impacting their share price or ability to repay bonds.</p> <p>Financial services organisations such as insurers and banks, may also be impacted by increases in insurance claims or mortgage defaults.</p>
Concentration and liquidity risk of New Zealand exposure.	Physical Transition	Domestic Equities Domestic Fixed Interest	New Zealand	ST, MT, LT	<p>The Scheme's investments have a material concentration in New Zealand. Increases in physical climate events in New Zealand (for example, floods, drought, and cyclones) could have a significant impact on the Scheme if there was a widespread impact on the organisations invested in. Additionally, the domestic fixed interest portfolio is less liquid than the international portfolio, which could impact the ability to divest from bonds assessed as having a greater risk of credit default.</p>
Increased costs, leading to lower profitability.	Transition	Equities Fixed Interest	Global New Zealand	ST, MT, LT	<p>Below are examples of increased costs to organisations.</p> <ul style="list-style-type: none"> <li>• Weather-related events could make insurance increasingly unaffordable, or unavailable in some circumstances.</li> <li>• Increased inflation due to the costs of transitioning to a lower carbon economy.</li> <li>• Increased costs from adapting and/or mitigating climate-related risks.</li> <li>• Increased regulatory costs from changes in legislation such as increased reporting requirements or higher carbon prices.</li> <li>• Governments may increase taxes due to the extra costs of transitioning to a lower emissions economy and/or repairing and rebuilding damaged infrastructure or property.</li> </ul>
Greater supply chain uncertainty due to weather disruptions.	Physical Transition	Equities Fixed Interest	Global New Zealand	ST, MT, LT	<p>Supply chain disruptions impact on an organisation's ability to operate and generate revenues. This can decrease their profitability and can increase prices through demand pressure, leading to inflationary cycles, driving up interest rates and costs of borrowing.</p>

Climate-related risk/opportunity identified	Physical/ Transition	Asset class	Geography	Time horizon	Anticipated impacts of climate-related risks and opportunities reasonably expected by the Scheme
Risk that assets become stranded.	Physical Transition	Cash and Cash Equivalents  Equities  Fixed Interest	Global  New Zealand	ST, MT, LT	<p>Chronic and acute physical climate impacts (for example, sea level rise or extreme weather) could lead to assets no longer being able to be used. This may cause write downs or write offs in asset values, and may impact property, land and infrastructure, and loans made on these assets.</p> <p>Transition climate impacts (for example, changes in regulation, consumer preferences or technology advances) could mean that organisations that the Scheme invests in are no longer able to operate, or their profitability is significantly decreased. For example, high emitting organisations cannot meet new emissions regulations, or new energy sources are developed, which leads to the collapse of other industries.</p> <p>The Scheme's investments in banks, lending agencies or loans could also be impacted where lending is provided to organisations that fail due to transition impacts.</p>
Restricted investible universe risk: investments excluded from the Funds' investible universe may outperform the market (for example, fossil fuel companies).	Transition	Equities	Global  New Zealand	ST, MT, LT	In scenarios where there is a delayed transition to using renewable energy sources, and fossil fuels continue to be used as a primary energy source, fossil fuel companies may outperform the market.
<b>Opportunities</b>					
Investments in organisations that benefit from the transition to a lower emissions economy.	Transition	Equities	Global  New Zealand	ST, MT, LT	Investments in transition focused companies, such as renewable energy companies, could provide opportunities for investment, while also contributing meaningfully to climate change resilience.
Opportunities to invest in new technologies.	Transition	Equities  Fixed Interest	Global  New Zealand	ST, MT, LT	Climate change impacts could drive technology changes and innovation and provide opportunities for investment. For example, technology that reduces agricultural or manufacturing emissions or flood mitigation technology.

Climate-related risk/opportunity identified	Physical/ Transition	Asset class	Geography	Time horizon	Anticipated impacts of climate-related risks and opportunities reasonably expected by the Scheme
Opportunities to invest in 'green bonds'.	Transition	Fixed Interest	Global New Zealand	ST, MT, LT	The costs of transitioning to a lower emissions economy and of adapting and mitigating climate change impacts, is likely to mean 'green bonds' continue to be issued for infrastructure and urban resilience projects, as an example. This provides an opportunity for the Scheme to invest in debt that finances projects which benefit the climate and/or environment.





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