Climate-Related Disclosures

For the period ended 31 March 2024

Medical Funds Management Limited

MAS Investment Funds

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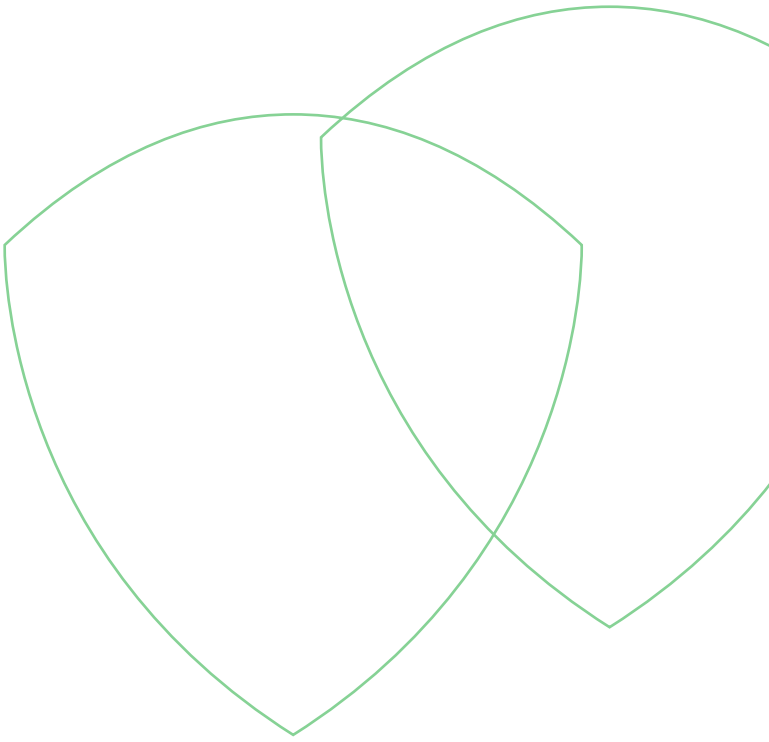


Introduction

Climate change is one of the biggest risks facing the world today. In its 2024 Global Risks Report[1] the World Economic Forum ranked the highest risks from a survey of nearly 1,500 global experts. Two-thirds of respondents rank extreme weather as the top risk most likely to present a material crisis on a global scale over a 10-year time horizon. Even more telling, 5 of the top 10 risks over this time horizon were environment related.

Acknowledging the impacts of climate change on financial markets, the international Task Force on Climate-Related Financial Disclosures (TCFD) was created in 2015 to improve and increase reporting of climate-related information. This includes the risks and opportunities presented by rising temperatures, climate-related policy, and emerging technologies in our changing world. The Aotearoa New Zealand Climate Standards (the Standards) are based on the TCFD framework, and require reporting by certain entities, including MAS Investment Funds (the Scheme).

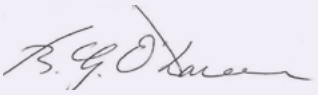
While these are the Scheme's first climate-related disclosures under the Standards, we believe that investing responsibly can support a sustainable future. This is why we seek to exclude investment in companies that generate 10% or more of their revenues from fossil fuels (refer to Fossil fuel exclusions for further information on exclusions), and require all our investment managers to incorporate environmental, social and governance (ESG) factors, including climate factors, into their investment decision making process.

As an active manager, we have the flexibility to adapt to new events and information in an ever-changing market environment. This approach helps us to identify and respond to climate-related risks and opportunities that may impact the value of underlying securities within the Scheme.

We are proud to present this report, which provides an overview of how we are considering the climate-related risks and opportunities that may affect investments made by the Scheme.

Approved on behalf of the Medical Funds Management Limited Board on 29 July 2024.

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[2]. 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 **9 November 2023 to 31 March 2024.**

[1] WEF The Global Risks Report 2024.pdf

[2] FMCA S461ZC (2)(b)

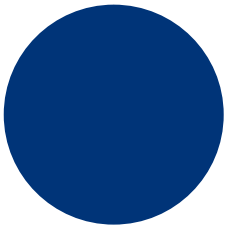
Funds within the Scheme

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.

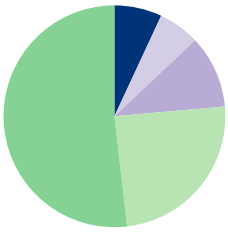
Scheme documents referred to in these disclosures, including the MAS Responsible Investment Policy and the Scheme's Statement of Investment Policy and Objectives (SIPO) can be accessed at: mas.co.nz/investmentfunds

Actual investment mix as at 31 March 2024



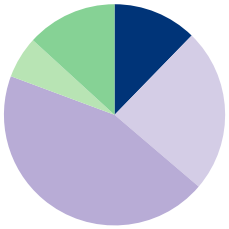
Cash Fund

- Cash and cash equivalents 100.00%



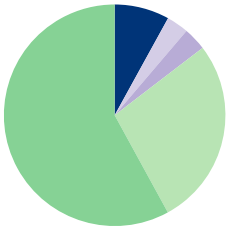
Growth Fund

- Cash and cash equivalents 6.93%
- New Zealand fixed interest 6.04%
- International fixed interest 10.63%
- Australasian equities 24.57%
- International equities 51.83%



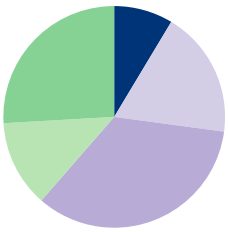
Conservative Fund

- Cash and cash equivalents 12.28%
- New Zealand fixed interest 23.96%
- International fixed interest 44.43%
- Australasian equities 6.12%
- International equities 13.21%



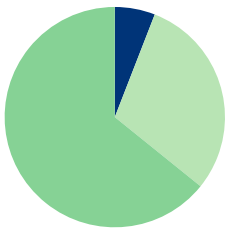
Aggressive Fund

- Cash and cash equivalents 8.01%
- New Zealand fixed interest 3.22%
- International fixed interest 3.37%
- Australasian equities 27.43%
- International equities 57.97%



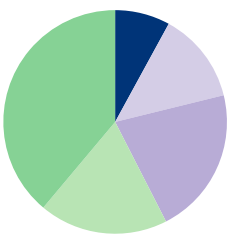
Moderate Fund

- Cash and cash equivalents 8.61%
- New Zealand fixed interest 18.52%
- International fixed interest 34.28%
- Australasian equities 12.68%
- International equities 25.91%



Global Equities Fund

- Cash and cash equivalents 5.91%
- Australasian equities 29.89%
- International equities 64.20%



Balanced Fund

- Cash and cash equivalents 7.96%
- New Zealand fixed interest 13.20%
- International fixed interest 21.32%
- Australasian equities 18.63%
- International equities 38.89%

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:

- Adoption Provision 1: Current Financial Impacts
- Adoption Provision 2: Anticipated Financial Impacts
- Adoption Provision 3: Transition Planning
- 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

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 current data limitations and inherent uncertainty of carrying out scenario analysis (particularly in the first period of preparation), 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 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 regular MFM Board meetings including dedicated climate-related training sessions. Reporting from Management is also provided.

Climate-related risks and opportunities are standing 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 6-monthly 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 and continues to grow competencies through regular 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 regularly.

Directors also keep up to date with the latest guidance and resources on governance, including specific climate-related risk governance. For example, Climate Governance Essentials information released by the Institute of Directors in New Zealand.

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 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 Policies and Objectives (SIPO).

The Investment Beliefs, SIPO and MAS Responsible Investment Policy are reviewed annually, and specialist investment managers report on investment risk 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.

Management's role

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

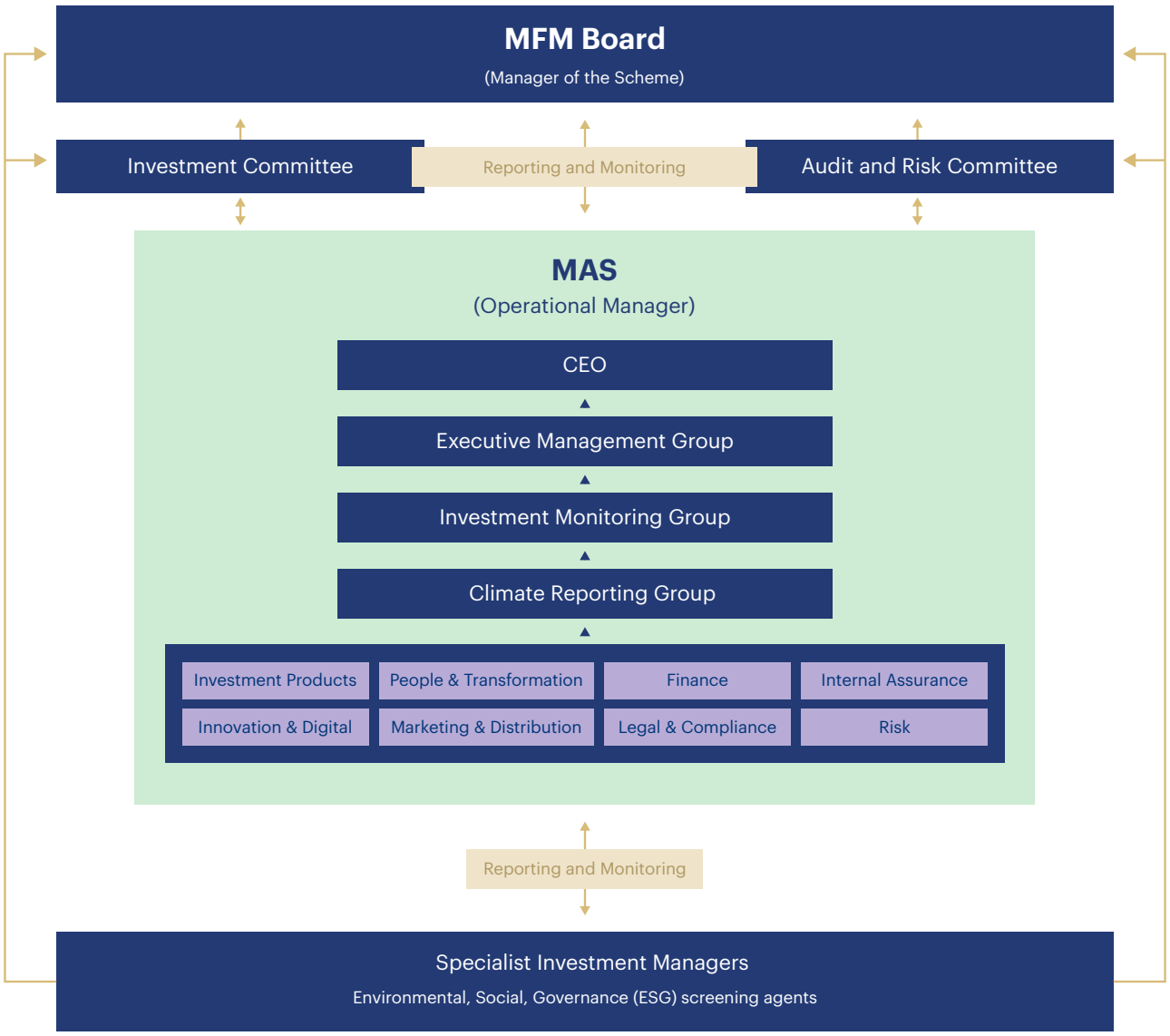
- The Chief Executive Officer (CEO) has overall responsibility for managing climate-related risks and opportunities. The CEO is responsible for monitoring the MAS Responsible Investment Policy and reporting to the IC.
- The Chief Finance and Risk Officer (CFRO) is responsible for review and oversight 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.
- The Investment Monitoring Group (IMG) is responsible for overseeing the implementation of the climate-related disclosures reporting regime.
- Investment Products, Finance, Risk, Legal and Compliance teams play key roles 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.

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 regular reporting to the MFM Board, IC and ARC, and attendance at governance meetings by Management representatives to present this reporting and address questions.

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.

Strategy

Current physical and transition impacts

During the Fund's investment period ended 31 March 2024, there were 3 separate billion-dollar disaster events in the United States[3] (where a majority of international investments are located). New Zealand (where there is a concentrated exposure to investments) has experienced relatively benign weather conditions post Cyclone Gabrielle and the Auckland Anniversary floods, with no major weather events during this reporting period[4].

Assessing current impacts

Given the inherent uncertainties in assessing the current impact of climate-related risks, a materiality approach has been taken with a focus on top 10 Fund exposures. In this regard, notable concentrations are geographic exposure to New Zealand, and United States technology sector exposure.

The top 10 holdings as at 31 March 2024 for each Fund can be seen in Appendix A.

None of the top 10 equity holdings reported material climate-related impacts over the reporting period to 31 March 2024 (as at the time of preparing this report). None of the top 10 fixed interest or cash holdings (including holdings within the Hunter Global Fixed Interest Fund) were identified as having material climate related impacts over the reporting period.

The United States technology exposures in the top 10 are all notable for their significant global presence. For example, Microsoft operates in over 100 countries, and Apple includes thousands of businesses and millions of people in more than 50 countries and regions as being part of their supply chain. The Funds may also invest directly in these businesses. Given this, it is challenging to state with certainty that there has been no impact on operations from global weather events. However, we have not identified disclosures of material impacts by these companies over the period, and the diversified global presence provides a further mitigating factor against specific weather events.

Other examples of climate impacts (again assessed as immaterial at a Fund level) are:

- the positive transitional impact for electric vehicle manufacturer Tesla through the continuing adoption of electric vehicles
- the introduction of the US Inflation Reduction Act targeting the reduction of domestic inflation, particularly as brought about by the global energy crisis, while tackling climate change; and
- the impact – both positive and negative – as supply and demand curves change on commodity producers that supply these manufacturers. For example, Arcadium Lithium, a producer of lithium, which is a key component of rechargeable batteries.

[3] NOAA National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2024).

[4] Cost of natural disasters - ICNZ | Insurance Council of New Zealand.

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 Fund.

A particular issue with impact reporting for 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.

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. This project was led by the Financial Services Council (FSC) and facilitated by EY. The sector-level scenarios report can be accessed here: Climate scenario narratives for the financial services sector.

Following the completion of sector-level work, we undertook 5 scenario analysis workshops, which involved members of the Executive team, Climate Reporting Group, and subject matter experts. 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[5].
6. Assess strategic resilience.

We analysed 3 climate-related scenarios, which 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[6].

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[7].

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[8]. 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 B 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.

[5] Scenario analysis participants agreed during the workshops that scenario analysis would be undertaken qualitatively in the first reporting period. Quantitative modelling was not undertaken.

[6] Climate scenario narratives for the financial services sector, EY and FSC, pages 29–37.

[7] Climate scenario narratives for the financial services sector, EY and FSC, pages 38–48.

[8] Climate scenario narratives for the financial services sector, EY and FSC, pages 49–59.

The Orderly scenario shows a steady steep decline in global emissions. This reduction leads to net emissions being less than zero in 2050. 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 has chosen to align the sector scenarios for consistency and comparability. 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 limitations of using sector-level scenarios have been considered during the scenario analysis process. Regulatory guidance was referred to throughout the development of our scenario narratives and the 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.

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.

The Investment Committee (IC) and MFM Board were provided with regular update papers on the scenario analysis process undertaken.

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.

A summary of climate-related risks and opportunities identified through the scenario analysis process, and the anticipated impacts of these is provided in Appendix C.

Time horizons for scenario analysis and risks and opportunity identification

	Short term	Medium term	Long term
Time horizon	1–3 years	5–10 years	30+ years
Year relative to 2024	2025–2027	2029–2034	2054+
Rationale for selection	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 the majority 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 Scheme has made some progress towards developing the transition plan aspects of its investment strategy. Management has provided reporting to the MFM Board communicating that transition planning is a priority initiative in our second reporting period and discussing when this work is expected to begin. Management has begun review of external transition planning guidance and other materials to build internal capability. Transition planning is expected to involve a range of stakeholders, including employees from the Investment Products, Finance, Risk, Legal and Compliance teams, and our specialist investment managers.

Adoption provisions

The Scheme has elected to use Adoption Provision 1: Current Financial Impacts. This exempts the Scheme in its first reporting period from disclosing:

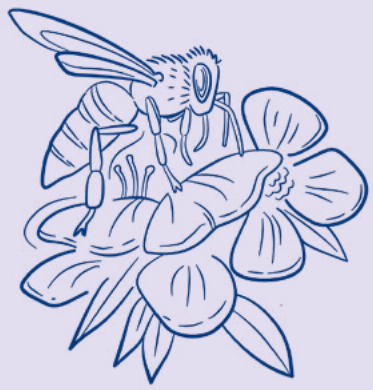
- the current financial impacts of its physical and transition impacts identified; and
- an explanation of why it is unable to disclose quantitative information.

The Scheme has elected to use Adoption Provision 2: Anticipated Financial Impacts. This exempts the Scheme in its first 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.

The Scheme has elected to use Adoption Provision 3: Transition Planning, which exempts the Scheme in its first reporting period from disclosing:

- the transition plan aspects of its strategy, including how its business model and strategy might change to address its climate-related risks and opportunities; and
- the extent to which transition plan aspects of its strategy are aligned with its internal capital deployment and funding decision-making processes.



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.

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

- 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 are introducing 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, we apply ESG integration in our investment strategy.

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	2025–2027
Medium term	5–10 years	2029–2034
Long term	30+ years	2054+

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, 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

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. We have assessed that the Scheme does not have Scope 1 and 2 emissions in this reporting period.

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 GHG emissions.

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 tCO2e in its first reporting period. This will be disclosed in our second reporting period.

GHG emissions are measured in metric tonnes of carbon dioxide equivalent (tCO2e).

Scheme emissions (tCO2e)	FY24 (not assured)
Scope 1	–
Scope 2	–
Scope 3	Adoption Provision 4 applied
Total	–
GHG emissions intensity (tCO2e per $ revenue)	Not applicable

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. 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 first 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 in the majority (75% benchmark) of our international equities we invest in a customised strategy that combines the MSCI Climate Paris Aligned Index Methodology with MAS's exclusions.

The 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 as at 31 March 2024 is shown in the table below.

Fund name	%
Cash Fund	0.00%
Conservative Fund	9.79%
Moderate Fund	19.21%
Balanced Fund	28.84%
Growth Fund	38.42%
Aggressive Fund	42.98%
Global Equities Fund	47.60%

The Scheme does not use an internal emissions price. Management remuneration is not linked to climate-related risks and opportunities in the current period.

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.

Refer to the MAS Responsible Investment Policy for further information.

Targets used to manage climate-related risks

Exclusion screens are refreshed quarterly. Any investment in a Fund that does not comply with the most recent screening, will be divested (or the relevant third-party service provider will be directed to divest if applicable) as soon as reasonably practicable after becoming aware of the non-compliance. This will take into account factors such as market liquidity and the availability of suitable alternative investments.

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

During the period ending 31 March 2024, investments that did not comply with the most recent screening were divested in line with the requirements of our responsible investment approach. There is no ongoing screening of private equity investments.

GHG emissions standards
No emissions have been measured this reporting period, however the assessment that there are no Scope 1 or 2 emissions has been made with reference to the Greenhouse Gas Protocol's Corporate Accounting and Reporting Standard (the GHG Protocol).

The operational control GHG emissions consolidation approach is used. No sources have been excluded from the assessment of Scope 1 and 2 emissions.

This report has not been independently assured.

Appendix A: Top 10 fund holdings

Cash Fund

Asset name	% of Fund net assets	Asset type	Country
JBWere Premium Custody Call Account - NZD	21.35%	Cash and cash equivalents	NZ
China Construction Bank Term Deposit 6.000% 10/05/2023 09/05/2024	6.97%	Cash and cash equivalents	NZ
Bank of New Zealand Term Deposit 6.090% 18/04/2023 17/04/2024	5.25%	Cash and cash equivalents	NZ
Bank of New Zealand Term Deposit 6.200% 10/05/2023 09/05/2024	5.24%	Cash and cash equivalents	NZ
Bank of New Zealand Term Deposit 6.350% 29/06/2023 01/07/2024	5.20%	Cash and cash equivalents	NZ
Westpac New Zealand Term Deposit 6.410% 13/07/2023 12/07/2024	5.19%	Cash and cash equivalents	NZ
Bank of New Zealand Term Deposit 6.200% 13/07/2023 08/04/2024	5.18%	Cash and cash equivalents	NZ
Bank of New Zealand Term Deposit 6.35% 08/08/2023 07/08/2024	5.17%	Cash and cash equivalents	NZ
Westpac New Zealand Term Deposit 6.300% 19/03/2024 19/03/2025	4.97%	Cash and cash equivalents	NZ
Bank of New Zealand Term Deposit 6.400% 13/06/2023 12/06/2024	3.48%	Cash and cash equivalents	NZ
Total value of top 10 assets	**68.00%**		

Conservative Fund

Asset name	% of Fund net assets	Asset type	Country
Hunter Global Fixed Interest Fund	44.43%	International fixed interest	NZ
JBWere Premium Custody Call Account - NZD	12.30%	Cash and cash equivalents	NZ
Bank of New Zealand 4.985% 07/06/2027	2.95%	New Zealand fixed interest	NZ
Kiwibank 5.737% 19/10/2027	1.88%	New Zealand fixed interest	NZ
Westpac New Zealand 3.696% 16/02/27	1.70%	New Zealand fixed interest	NZ
New Zealand Local Government Funding Agency 3.50% 14/04/2033	1.58%	New Zealand fixed interest	NZ
Chorus Limited 4.35% 06/12/2028	1.57%	New Zealand fixed interest	NZ
Kiwibank 6.254% 19/10/2028	1.56%	New Zealand fixed interest	NZ
New Zealand Government 1.5% 15/05/2031	1.45%	New Zealand fixed interest	NZ
Auckland International Airport 6.22% 02/11/2029	1.27%	New Zealand fixed interest	NZ
Total value of top 10 assets	**70.69%**		

Moderate Fund

Asset name	% of Fund net assets	Asset type	Country
Hunter Global Fixed Interest Fund	34.28%	International fixed interest	NZ
JBWere Premium Custody Call Account - NZD	8.64%	Cash and cash equivalents	NZ
Bank of New Zealand 4.985% 07/06/2027	2.28%	New Zealand fixed interest	NZ
Infratil Ltd	1.73%	Australasian equities	NZ
Kiwibank 5.737% 19/10/2027	1.46%	New Zealand fixed interest	NZ
Fisher & Paykel Healthcare Ltd	1.43%	Australasian equities	NZ
Westpac New Zealand 3.696% 16/02/27	1.31%	New Zealand fixed interest	NZ
New Zealand Local Government Funding Agency 3.50% 14/04/2033	1.22%	New Zealand fixed interest	NZ
Chorus Limited 4.35% 06/12/2028	1.21%	New Zealand fixed interest	NZ
Kiwibank 6.254% 19/10/2028	1.20%	New Zealand fixed interest	NZ
Total value of top 10 assets	**54.76%**		

Balanced Fund

Asset name	% of Fund net assets	Asset type	Country
Hunter Global Fixed Interest Fund	21.32%	International fixed interest	NZ
JBWere Premium Custody Call Account - NZD	8.00%	Cash and cash equivalents	NZ
Infratil Ltd	2.54%	Australasian equities	NZ
Fisher & Paykel Healthcare Ltd	2.10%	Australasian equities	NZ
Bank of New Zealand 4.985% 07/06/2027	1.62%	New Zealand fixed interest	NZ
Microsoft Corp	1.51%	International equities	US
Meridian Energy Limited	1.39%	Australasian equities	NZ
Nvidia Corp	1.37%	International equities	US
Apple Inc	1.32%	International equities	US
Mainfreight Ltd	1.17%	Australasian equities	NZ
Total value of top 10 assets	**42.34%**		

Growth Fund

Asset name	% of Fund net assets	Asset type	Country
Hunter Global Fixed Interest Fund	10.63%	International fixed interest	NZ
JBWere Premium Custody Call Account - NZD	6.99%	Cash and cash equivalents	NZ
Infratil Ltd	3.36%	Australasian equities	NZ
Fisher & Paykel Healthcare Ltd	2.77%	Australasian equities	NZ
Microsoft Corp	2.01%	International equities	US
Meridian Energy Limited	1.84%	Australasian equities	NZ
Nvidia Corp	1.82%	International equities	US
Apple Inc	1.75%	International equities	US
Mainfreight Ltd	1.54%	Australasian equities	NZ
Auckland International Airport Ltd	1.22%	Australasian equities	NZ
Total value of top 10 assets	**33.93%**		

Aggressive Fund

Asset name	% of Fund net assets	Asset type	Country
JBWere Premium Custody Call Account - NZD	8.07%	Cash and cash equivalents	NZ
Infratil Ltd	3.75%	Australasian equities	NZ
Hunter Global Fixed Interest Fund	3.37%	International fixed interest	NZ
Fisher & Paykel Healthcare Ltd	3.09%	Australasian equities	NZ
Microsoft Corp	2.24%	International equities	US
Meridian Energy Limited	2.05%	Australasian equities	NZ
Nvidia Corp	2.04%	International equities	US
Apple Inc	1.96%	International equities	US
Mainfreight Ltd	1.72%	Australasian equities	NZ
Auckland International Airport Ltd	1.37%	Australasian equities	NZ
Total value of top 10 assets	**29.66%**		

Global Equities Fund

Asset name	% of Fund net assets	Asset type	Country
JBWere Premium Custody Call Account - NZD	5.97%	Cash and cash equivalents	NZ
Infratil Ltd	4.08%	Australasian equities	NZ
Fisher & Paykel Healthcare Ltd	3.37%	Australasian equities	NZ
Microsoft Corp	2.49%	International equities	US
Nvidia Corp	2.26%	International equities	US
Meridian Energy Limited	2.24%	Australasian equities	NZ
Apple Inc	2.17%	International equities	US
Mainfreight Ltd	1.87%	Australasian equities	NZ
Auckland International Airport Ltd	1.49%	Australasian equities	NZ
Spark New Zealand Ltd	1.47%	Australasian equities	NZ
Total value of top 10 assets	**27.41%**		

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

MtCO2e – million tonnes of carbon dioxide equivalent

BtCO2e – 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
Global energy and emission pathway parameters	NGFS	Net Zero 2050	NDCs	Current Policies
	IEA	Net Zero Emissions by 2050	APS	STEPS
New Zealand-specific climate parameters	NIWA	RCP2.6	RCP4.5	RCP8.5
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
Emission pathways (net emissions)	Domestic: (CCC)	47 MtCO2e by 2030 3.8 MtCO2e by 2050	57 MtCO2e by 2030 22 MtCO2e by 2050	62 MtCO2e by 2030 35 MtCO2e by 2050
	Global: (NGFS)	Net Zero by 2050: 25.9 BtCO2e by 2030 -294.82 MtCO2e by 2050 using GCAM5.3+	National Determined Contributions (NDCs): 35.1 BtCO2e by 2030 26.7 BtCO2e by 2050 using GCAM5.3+	Current Policies (Hothouse): 38.6 BtCO2e by 2030 34.3 BtCO2e by 2050 using GCAM5.3+
Economic outcomes (GDP*)	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
Social outcomes (population)	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
Policy outcomes (carbon price)	Domestic ETS: (CCC)	NZ$140 in 2030 NZ$250 in 2050	NZ$140 in 2030 NZ$250 in 2050	NZ$35 in 2035 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
Technology outcomes: **Percent of Renewable Electricity of Total Electricity Produced**	Domestic: (CCC)	94% by 2030 100% by 2050	94% by 2030 98% by 2050	93% by 2030 94% by 2050
	Global: (IEA)	61% by 2030 88% by 2050	46% by 2030 71% by 2050	42% by 2030 60% by 2050
Technology outcomes: **Percent of Renewable Energy of Total Energy Produced**	Domestic: (CCC)	55% by 2030 90% by 2050	50% by 2030 80% by 2050	48% by 2030 61% by 2050
	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 C: 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.

Short term (ST)	1–3 years	2025–2027
Medium term (MT)	5–10 years	2029–2034
Long term (LT)	30+ years	2054+

Appendix C 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, or poor climate risk management.	Transition	Equities and 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 and Fixed Interest	Global New Zealand	ST, MT, LT	The transition to a lower emissions economy could be inflationary. 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 and 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 and 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 and Fixed Interest	Global New Zealand	ST, MT, LT	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. Financial services organisations such as insurers and banks, may also be impacted by increases in insurance claims or mortgage defaults.
Concentration and liquidity risk of New Zealand exposure.	Physical Transition	Domestic Equities and Domestic Fixed Interest	New Zealand	ST, MT, LT	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.
Increased costs, leading to lower profitability.	Transition	Equities and Fixed Interest	Global New Zealand	ST, MT, LT	Below are examples of increased costs to organisations: • Weather-related events could make insurance increasingly unaffordable, or unavailable in some circumstances. • Increased inflation due to the costs of transitioning to a lower carbon economy. • Increased costs from adapting and/or mitigating climate-related risks. • Increased regulatory costs from changes in legislation such as increased reporting requirements or higher carbon prices. • 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.
Greater supply chain uncertainty due to weather disruptions.	Physical Transition	Equities and Fixed Interest	Global New Zealand	ST, MT, LT	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.

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 and Fixed Interest	Global New Zealand	ST, MT, LT	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. 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. The Scheme's investments in lending agencies or loans could also be impacted where lending is provided to organisations that fail due to transition impacts.
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.
			Opportunities		
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 lead to higher returns, while also contributing meaningfully to climate change resilience.
Opportunities to invest in new technologies.	Transition	Equities	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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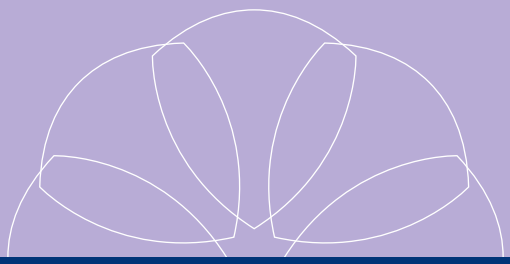

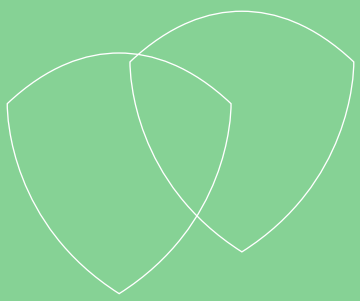

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