

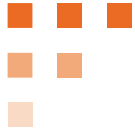


ACI FUNDS

Climate Statements

31st March 2025

Prepared by FundRock NZ Limited in
Compliance with the Aotearoa New Zealand Climate Standards



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1. INTRODUCTION

FundRock NZ Limited (“**FundRock**”) has prepared these climate statements (the “**Statements**”) for ACI Funds (the “**Scheme**”) in collaboration with Stewart Group Asset Management Limited (“**Stewart Group**”) and in compliance with the requirements of the Aotearoa New Zealand Climate Standards (the “**Standards**”). These Statements cover the reporting period between 1st April 2024 and 31st March 2025 (inclusive) and the following funds (collectively, the “**Funds**”):

- ACI Conservative Fund (“**Conservative Fund**”);
- ACI Growth Fund (“**Growth Fund**”).

FundRock is a fund hosting business; we issue and manage funds on behalf of investment managers who want to provide Aotearoa New Zealand investors with access to their investment solutions via Portfolio Investment Entities (PIE funds) under our MIS (“managed investment scheme”) manager licence. FundRock’s goal is to provide Aotearoa New Zealand investors with access to leading global and boutique domestic investment managers. Our funds cover all major asset classes and a broad variety of strategies.

While FundRock retains sole authority over all aspects of fund management, all decisions about investments are made by Stewart Group, in accordance with the Investment Management Agreement. These Statements reflect this arrangement: certain sections are focused on how FundRock manages Climate-Related Risks and Opportunities (“**CRR&O**”); certain others, on how Stewart Group does it; and still others – in fact, most – present both. It is important when reading these Statements to consider these arrangements, and the respective responsibilities, to understand the Funds’ strategy in relation to CRR&O.

FundRock is part of the Apex Group, which has published a [Sustainability Report](#) where more details on the group’s approach to sustainability can be found. At the level of schemes and funds (that at which these Statements were prepared), FundRock’s approach to climate-change varies and is strongly influenced by the funds’ investment manager.

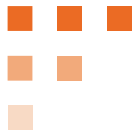
The investment manager for the Scheme is Stewart Group, as detailed in the Scheme’s governing documents and the Product Disclosure Statement for the Funds.

Stewart Group is an asset consultancy and investment management business, a fully owned subsidiary of Te Rehe Group, which provides an array of financial services and products to retail and wholesale clients.

Te Rehe Group is a certified B Corporation – an international recognition of its efforts to create a sustainable workplace and manage its operations to benefit all stakeholders. To support investors who wish to align their investments with their sustainability-driven values, Stewart Group created the ACI Funds. The funds are constructed from a range of underlying managed funds (“**Underlying Funds**”) that were carefully chosen so they reflect Stewart Group’s investment philosophy and evidence-based approach. The diversified and dynamic Underlying Funds, excluding the Smart NZ Core Equity Trust and the Dimensional Global Real Estate Trust, also offer a sustainability screening, mainly focusing on GHG emissions and social controversies. The investment manager for all Underlying Funds (including the Smarts NZ Core Equity Trust) is DFA Australia Limited (“**Dimensional**”).

A list of the Underlying Funds and respective weightings shown below:

Underlying Fund	% of Conservative Fund	% of Growth Fund
Smart NZ Core Equity Trust	4.20%	12.75%
Dimensional Australian Sustainability PIE	1.40%	4.25%
Dimensional Global Sustainability PIE Fund	8.96%	27.20%



Underlying Fund	% of Conservative Fund	% of Growth Fund
Dimensional Global Sustainability PIE Fund (NZD Hedged)	8.96%	27.20%
Dimensional Global Bond Sustainability PIE Fund	46.00%	8.00%
Dimensional Two-Year Sustainability Fixed Interest PIE Fund	20.00%	1.50%
Dimensional Emerging Markets Sustainability Trust	4.48%	13.60%
Dimensional Global Real Estate Trust - NZD Hedged	5.00%	5.00%

The Underlying Funds, ex the Smart NZ Core Equity Trust and the Dimensional Global Real Estate Trust, are hereinafter called the “Sustainability Funds”.

1.1. Adoption Provisions

In preparing these Statements, FundRock relied on the following adoption provisions in the Aotearoa New Zealand Climate Standard 2 (the “CS2”):

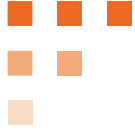
- (A) Adoption provision 2 (Anticipated financial impacts);
- (B) Adoption Provision 4 (Scope 3 GHG emissions);
- (C) Adoption Provision 5 (Comparatives for Scope 3 GHG emissions);
- (D) Adoption provision 6 (Comparatives for metrics);
- (E) Adoption provision 7 (Analysis of trends);
- (F) Adoption Provision 8 (Scope 3 GHG emissions assurance).

1.2. Cautionary Note and Limitations

This report is a summary of FundRock's assessment of future CRR&O and its resulting strategy. It contains FundRock's current assessment of the future CRR&O which could affect its business and customers, as well as its current planning to address these risks. This process necessarily involves estimates, projections, and assumptions about the future, which are inherently uncertain and are not forecasts of future performance.

This report contains statements that are, or may be deemed to be, forward looking statements, including climate-related goals, targets, pathways, ambitions, and related risks and opportunities, as well as FundRock's current planning to address related risks. By their very nature, forward-looking statements require us to make assumptions and are subject to inherent risks and uncertainties, many of which are beyond our control and give rise to the possibility that our predictions, forecasts, projections, expectations or conclusions will not prove to be accurate, that our assumptions may not be correct, and that our objectives, vision, commitments, goals, targets, and strategies to mitigate and adapt to CRR&O will not be achieved. FundRock has set out the basis and limitations of its analysis in these Statements and reserves the right to revisit its assumptions and assessments as it develops its understanding of CRR&O and its response to climate change. This section should be read together with the limitations identified elsewhere in these Statements. Many of the assumptions, standards, metrics, and measurements used in preparing these Statements continue to evolve and are based on assumptions believed to be reasonable at the time of preparation, but should not be considered guarantees.

In light of the above, while FundRock has taken due care in preparing these Statements, including its scenarios and assumptions, FundRock makes no representation as to their accuracy, completeness, or reliability, in particular in relation to FundRock's assumptions regarding future events. FundRock expressly disclaims responsibility for, and makes no representation, and gives no warranty, assurance, or guarantee, as to the accuracy, completeness, or reliability of



any contents of these Statements. To the greatest extent possible under New Zealand law, FundRock also expressly disclaims all liability for any loss (direct, indirect, consequential, or otherwise) or damage arising from the use of these Statements. We recommend you seek independent advice before acting or relying on any information in this report. FundRock reserves the right to revise statements made and its strategy or business activities described in these Statements without notice.

1.3. Directors' Approval and Statement of Compliance

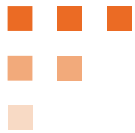
Signed on 28 July 2025 by the Directors identified below on behalf of FundRock, approving compliance with the Standards:

Hugh Stevens

Hugh Stevens

A handwritten signature in black ink, appearing to read 'Jeremy Valentine'.

Jeremy Valentine



2. GOVERNANCE

2.1. Governance Body

FundRock’s Board of Directors (the “**Board**”) is the governance body for the Scheme (as well as all the schemes and funds managed by FundRock). It is accountable for the long-term stewardship and resilience vis-à-vis potential impacts of climate change.

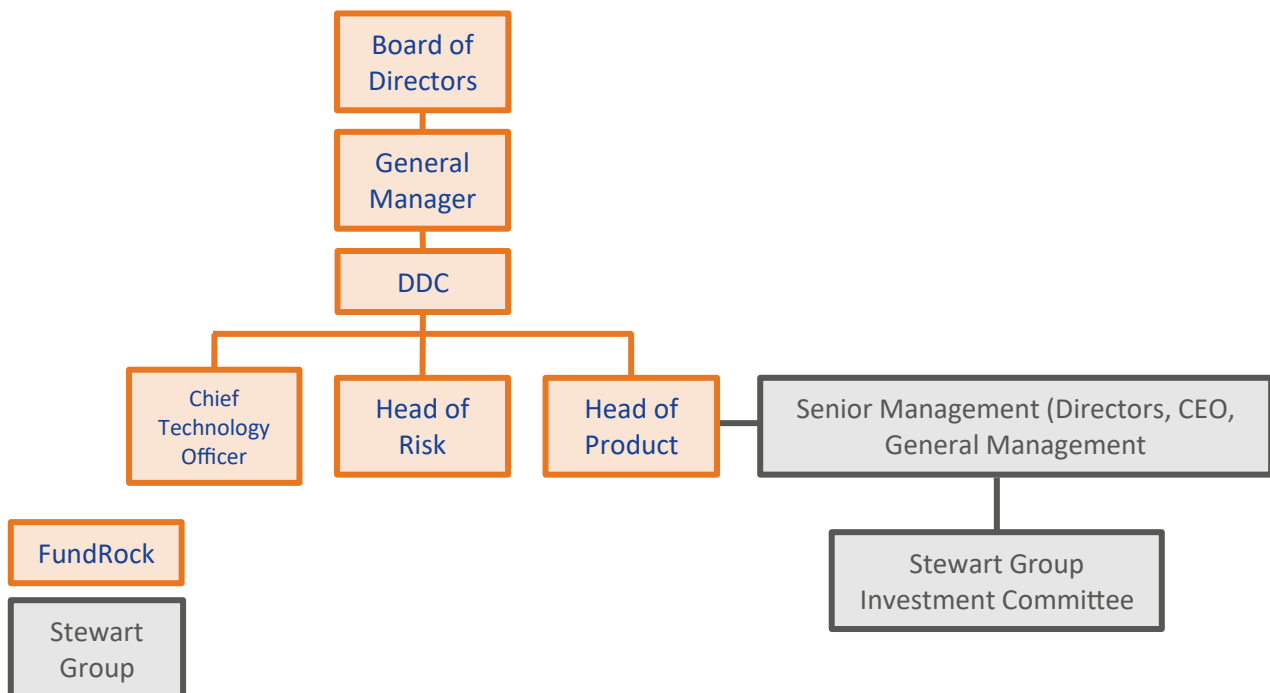
The Board takes into account compliance and regulatory risks arising from possible changes to the regulatory framework of Aotearoa New Zealand’s investment industry when developing and overseeing the implementation of FundRock’s strategy. CRR&O that are specific to the Scheme or Funds (such as those associated with the assets held by a fund) are addressed at the management level.

2.1.1. CRR&O Governance Structure

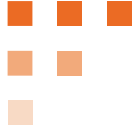
The Board engages quarterly with FundRock’s General Manager, who reports on the most material entity-level CRR&O. These reports are reviewed by the Due Diligence Committee (the “**DDC**”) prior to being made available to the General Manager. The DDC also reviews key deliverables of the Climate-Related Disclosures (“**CRD**”) regime (including these Statements) and either approves them or attests their orderliness for submission to the Board.

For CRD purposes, the interactions with the Stewart Group are managed by the Product team (led by the Head of Product). As part of its role, the Product team engages with the Stewart Group regarding their climate-related practices and objectives.

The chart below illustrates the structure described above:



- **Board:** performs the role of governance body, as described in this Statement.
- **General Manager:** ensures project is adequately resourced, defines success, and acts as liaison between the Board and FundRock’s management.
- **DDC:** manages CRD-related activities, as described in this Statement.



- **Head of Product:** leads the execution of CRD-related activities.
- **Head of Risk:** leads the management of CRD-related compliance risks and provision of risk management expertise.
- **Chief Technology Officer:** leads the provision of IT support and data expertise.

Stewart Group directors (CEO and General Manager) retain oversight of CRR&O. The directors appointed the Stewart Group Investment Committee as the body responsible for collating the information and data required to support the scheme issuer and manager in preparing the mandatory climate statements for the Funds.

2.1.2. Skills & Competencies

The Board continues to develop the skills and competencies of its members in respect to CRD and CRR&O. There were two changes to the Board's composition in August 2024, including the investiture of a director with extensive experience in ESG and assurance. The Board remains committed to receiving training on CRD and CRR&O at its quarterly meetings.

Stewart Group is not a reporting entity under the Aotearoa New Zealand Climate Standards. However, as the appointed investment manager of ACI Funds, it holds contractual obligations to support the scheme issuer and manager in preparing the climate risk disclosure statements. As such, Stewart Group has leveraged substantially from the CRD framework developed by FundRock to gain knowledge and understanding with respect to the CRD.

Stewart Group also engaged with the Funds' underlying investment manager, Dimensional, and gained their support in providing all the related information and data for the Underlying Funds contained in these Statements.

Within Dimensional, a team-based approach is applied when considering and implementing ESG matters in the investment process. These activities comprise a significant amount of effort across Dimensional's Portfolio Management, Investment Stewardship, Research, and Investment Analytics & Data teams. Dimensional's Head of Responsible Investment coordinates environmental, social, and governance ("ESG") activities globally across these various groups.

Dimensional's approach to responsible investment is focused on building science-based solutions that allow clients to align their investment and sustainability goals. Dimensional's responsible investment efforts include combining the knowledge of dedicated personnel along with ESG specialists and contributors integrated within their respective functional teams.

The Stewart Group is committed to actively monitoring the developments in climate-related regulations and investigating ways to enhance the Stewart Group's oversight of CRR&O.

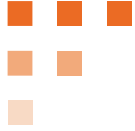
2.1.3. Metrics & Targets

The General Manager will report to the Board quarterly on the Funds' performance against their metrics (to the extent that the Funds are publishing metrics and data is available) and targets (if any).

The Board has not set CRD- or CRR&O-related targets, key performance indicators, or remuneration incentives for any of FundRock's staff or the Scheme. Nonetheless, the investment manager may choose to set such targets or indicators for the Schemes or Funds.

2.2. Management

The DDC reviews key deliverables of the CRD regime as they are prepared, and the most material CRR&O (at the entity level) quarterly (see p 7 above). It also engages with the Product team regarding the work on CRD in the relevant reporting period and associated risks and opportunities. The Product team, in turn, is in contact with the Stewart Group throughout the reporting period and receives updates on their CRD-related processes and their status.

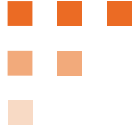


As investment manager for the Underlying Funds, Dimensional has control over everyday operations and asset-related decision-making within the underlying investment products, including CRR&O assessment. Dimensional utilises the following committees of their US parent, Dimensional Fund Advisors LP (“DFA”), to assist in the implementation of its firm-wide responsible investment strategy:

- **Investment Committee:** DFA’s Investment Committee is responsible for setting Dimensional’s proxy voting policy and guidelines for voting and overseeing each Dimensional entity’s proxy voting process. It is further responsible for overseeing the incorporation of environmental, social, and governance considerations into certain portfolios’ design and construction. The Investment Committee reviews investment guidelines for all Dimensional-managed portfolios at least annually and approves any changes on an as-needed basis.
- **Investment Stewardship Committee:** Investment stewardship at Dimensional is a global effort supported by multiple teams. Dimensional’s stewardship efforts are overseen by DFA’s Investment Stewardship Committee. This group of senior employees and directors includes members of DFA’s Portfolio Management, Executive, and Compliance teams, as well as the Head of Responsible Investment and members of DFA’s Board of Directors. The Investment Stewardship Committee is responsible for developing Dimensional’s policies and approach to investment stewardship, which are then executed by the Investment Stewardship Group in coordination with other groups. The Investment Stewardship Group, which sits within Dimensional’s Portfolio Management team, implements stewardship efforts by conducting engagements, instructing proxy votes, and making recommendations to the Investment Stewardship Committee on potential enhancements to the firm’s stewardship policies, procedures, and operations. The head of the Investment Stewardship Group chairs the Investment Stewardship Committee.
- **ESG Steering Committee:** DFA’s ESG Steering Committee’s role is to strategically coordinate and communicate Dimensional’s ESG efforts across business functions to deliver a robust approach to ESG informed by Dimensional client needs and guided by science. The ESG Steering Committee is supported by cross-functional ESG working groups within each of the major regions where Dimensional operates. These working groups are responsible for keeping up to date on industry and regulatory developments within their local regions, coordinating sustainability events and conferences, and supporting regional ESG training activities.
- **Legal and Regulatory Committee:** DFA’s Legal and Regulatory Committee shares information related to legal and regulatory updates with impacted departments and personnel across Dimensional.

Stewart Group’s Investment Committee conducts an annual Investment Manager Due Diligence review to confirm the continued validity of the relationship with Dimensional.

Section 4 – Risk below provides more details on the risk management process.



3. STRATEGY

3.1. Current Impacts

At the entity level, the costs of compliance with CRD regulations continue to be the most significant impact of CRR&O. FundRock and Stewart Group have dedicated material resources to ensure compliance with it. While these costs may not be passed on to the investors directly, mounting regulation may lead to fee increases.

Aside from above, no other material impacts were identified by the Stewart Group.

3.1.1. Current Financial Impacts

FundRock is unable to provide a meaningful and reliable measure of the financial impacts that climate change had on the Scheme or Funds during the current reporting period.

The price of a financial asset reflects investors' expectations of its returns for an undetermined future period. These expectations are based on all material information regarding the asset that is publicly available, and it is impractical to segregate the impact of one piece of information from that of another. A price movement can sometimes be linked to a specific event, but this is ephemeral: new developments eventuate, and soon it becomes impossible to establish a quantifiable connection between the asset's price and the event of interest. In addition, using an arbitrary timeframe to measure the impact of events would produce arbitrary results¹.

These challenges are *in addition* to the challenge of determining what is an event caused by climate change. Diversified investment funds have dynamic holdings, the real-world assets that sit under their portfolios (i.e., the facilities, infrastructure, etc. connected to its investees) are geographically dispersed, and the universe of events affecting them are too broad for meaningful analysis. It took more than a year after cyclone Gabrielle hit Gisborne in early 2023 for a team of scientists to conclude that it was made 10% worse by climate change²; FundRock is not equipped to determine (with reasonable certainty and within the timeframe available to complete these Statements) which, of all events that affected the assets it holds in a certain year, can be linked to climate change – let alone to quantify their effects.

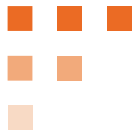
3.2. Scenario Analysis

FundRock has used the sector scenario analysis produced on behalf of the Financial Services Council to conduct its own scenario analysis (the *Climate Scenario Narratives for the Financial Services Sector* and the *Climate Risk Database*, hereinafter jointly called the "**Sector Scenario Analysis**"). The reasons for making this choice were:

- (A) adoption of the Sector Scenario Analysis across the industry makes it easier for investors to compare the climate-related strategies adopted by fund managers;
- (B) the Sector Scenario Analysis benefits from the knowledge of experts; and
- (C) adopting the Sector Scenario Analysis firmly grounds FundRock in a framework that is compliant with applicable regulations.

¹ An example is the Deepwater Horizon explosion and consequent oil spill. The explosion happened on 20 April 2010, local time – before the London market opened on the 21st. The shares of BP plc, owner of the platform, closed at GBP 6.42 on 19 April, GBP 6.48 on 21 April, GBP 4.35 on 20 October (six months from the event), and GBP 4.66 on 20 April 2011 (a year from the event) (prices were sourced from [yahoo!finance UK](https://finance.yahoo.com/) and may differ from other sources). The amount of a hypothetical investor's loss with the event would depend on which of these dates is chosen to measure it.

² See Stone, Dáithí A. *et alii*, *Cyclone Gabrielle as a Design Storm for Northeastern Aotearoa New Zealand Under Anthropogenic Warming*, available at <https://doi.org/10.1029/2024EF004772> (consulted on 11 Sep 2024).



The Sector Scenario Analysis was not adopted without judgement, however. In an iterative process, FundRock **(1)** identified the key driving forces underlying development of the three scenarios, **(2)** modelled their relationship³, and **(3)** identified those with deeper or broader impacts on the scenarios (i.e., the key driving forces). Further along the process, FundRock analysed the risks identified in the Climate Risk Database, integrating the information across the Sector Scenario Analysis and systematizing the risk classification for use with diversified portfolios. Finally, the portfolio of the Funds was used to identify the most critical risks and how they may impact the Funds within the timeframe of the scenario analysis.

3.2.1. Methods & Assumptions

FundRock have analysed the three scenarios from the Sector Scenario Analysis: Orderly (1.5°C), Too Little, Too Late (2°C), and Hothouse (3°C)⁴. These scenarios are informed (respectively) by the Intergovernmental Panel on Climate Change (“IPCC”) SSP 1-1.9, SSP 2-4.5, and SSP 5-8.5 scenarios⁵, and are relevant and appropriate for the following reasons:

- (A)** They comply with the regulatory requirements, which stipulate that climate reporting entities must analyse a 1.5°C, a 3°C scenario, and a third scenario of their choice.
- (B)** The Orderly and Hothouse scenarios:
 - (i)** represent extremes, and therefore allow FundRock to analyse how the Scheme and Funds would fare under the most challenging circumstances; and
 - (ii)** are widely used by businesses, both in the financial services and other industries – their widespread adoption will make it easier for investors to compare offers and products.
- (C)** The *Too Little, Too Late* and the *Disorderly* scenarios were considered as the third option⁶, and the former was selected as per the Sector Scenario Analysis Report⁷ this was deemed the most likely path for Aotearoa New Zealand. It is also more challenging than the *Disorderly* scenario, which assumes lower physical and transition risks and a lower long-term temperature increase⁸.

The description of the scenarios and certain further details on methodology can be found in Schedule A below.

3.2.2. Scenario Analysis Process

The scenario analysis followed the six-step process detailed in the guidance published by the External Reporting Board (“XRB”), particularly the *Staff Guidance Entity Scenario Development*⁹. An overview of the process is provided below:

- (A)** *Engage with Stakeholders*: see Subsections 3.2.2.1 and 3.2.2.2 below for details.
- (B)** *Define the Problem*: the focal question was adopted from recommendations by the Task Force on Climate-Related Financial Disclosures (“TCFD”) ¹⁰ and all Funds were considered in scope. For information on time horizons, see Section A.i below.
- (C)** *Identify driving forces and critical uncertainties*: the Sector Scenario Analysis was reviewed and analysed to produce a conceptual model¹¹.
- (D)** *Select temperature outcomes and pathways*: temperature outcomes and pathways were adopted from the Sector Scenario Analysis (see Section 3.2 above for more details).

³ See footnote No 11 for the meaning of “model” in the context of scenario analysis.

⁴ The scenario analysis was completed for the 2024 statements and was not materially reviewed in the current reporting period.

⁵ *Climate Scenario Narratives for the Financial Services Sector*, p 12.

⁶ See Sector Scenario Analysis Report, p 12.

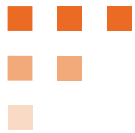
⁷ See Sector Scenario Analysis Report, p 12.

⁸ See *Network for Greening the Financial System, NGFS Scenarios for central banks and supervisors*, November 2023, pp 11 and 20.

⁹ Which is itself an adaptation of *Task Force on Climate-Related Financial Disclosures, Guidance on Scenario Analysis for Non-Financial Companies*, October 2020 – also consulted.

¹⁰ Task Force on Climate-related Financial Disclosures, *Guidance on Scenario Analysis for Non-Financial Companies*, 2020 p 72.

¹¹ A conceptual model is a “simple representation of a system focused on the relationship expected to be seen between variables” (XRB, *Staff Guidance Entity Scenario Development*, 2023, pp 11 and 27).



- (E) *Draft narratives and quantify*: narratives were adapted from the Sector Scenario Analysis, taking into consideration the distinctions of the Scheme and Funds. No quantification was attempted.
- (F) *Assess strategic resilience*: completed in collaboration with Stewart Group.

3.2.2.1. Integration & Governance

The Board set the governance for scenario analysis, ensuring appropriate processes were in place; and FundRock’s management has reviewed and approved the scenario analysis framework (which was based on the Sector Scenario Analysis, as described above) and its results (as reflected in this Statement).

Scenario analysis was conducted by FundRock as a standalone process, but its results (particularly the risks and impacts which identification and assessment it enabled) were shared with investment managers for their consideration and (when material for FundRock as an entity) integrated into FundRock’s risk management processes.

Stewart Group’s Investment Committee has reviewed and considered the scenario analysis. Dimensional has also reviewed and considered similar scenario analysis for their PIE funds and does not intend to change the approach of its investment strategy based on the scenario analysis output.

In line with the view of the Underlying Funds' investment manager, for reasons discussed throughout Section 4 below, Stewart Group is comfortable with Dimensional's intentions not to incorporate outputs of CRD scenario analysis into their investment strategy.

3.2.2.2. External Stakeholders

FundRock has reviewed the scenario analysis and its application to the Scheme and Funds and shared the results with Stewart Group (as described in Section 3.2.2.1 above). By doing this, FundRock benefited from Stewart Group’s knowledge of the Funds while ensuring that results met the regulatory requirements.

3.3. Climate-Related Risks and Opportunities (CRR&O)

The Sector Scenario Analysis included a *Climate Risk Database*, on which FundRock and Stewart Group relied to identify and assess the risks for the Scheme and Funds. As indicated in Section 3.2 above, the risks found in the Sector Scenario Analysis were systematized by FundRock to allow for their application across the variety of schemes and funds we manage.

Diversified investment funds will be exposed to most, if not all, climate-related risks. For example, it is likely that at least one of their investees will be exposed to the impacts associated with rising sea levels or stranded assets.

FundRock and the Stewart Group have chosen to highlight the risks that were assessed to be material to the Scheme and Funds. This assessment was based on the Funds’ portfolios and the Sector Scenario Analysis.

The risk of policy and regulatory impacts is material for all schemes and funds managed by FundRock, including those in these Statements’ scope:

Name	Type	Term	Sector/Geography	Description
Policy & Regulatory Impacts	Transition	Short/Medium	Aotearoa New Zealand	Increasingly stringent climate change regulations (e.g. disclosure, emissions reduction, green buildings requirements, etc.) creating additional processes and costs.

The publication of mandatory climate statements is an early manifestation of this risk (as mentioned in Section 3.1 above). Other material CRR&O are listed in the table in Schedule B below.



Stewart Group's Investment Committee reviewed the risks detailed in Schedule A below. As further detailed in Section 4 below, Stewart Group shares Dimensional's view that climate risks are one of the many types of risks that might affect a company's ability to generate profits. Dimensional's general investment philosophy is based on the belief that, in liquid capital markets, prices reflect publicly available information, including information about climate-related risks and opportunities. Therefore, in Dimensional's view, the most effective way to manage risks is by using the information in market prices, maintaining broad diversification, and encouraging effective board oversight of material risks at portfolio companies.

3.3.1. Definitions of Short-, Medium-, & Long-Term

The time horizons used for the scenario analysis (see Section A.i below) were used for the purpose of analysing the timeframe of climate-related risks.

3.3.2. CRR&O & Decision Making

Management of entity-level CRR&O has been integrated into FundRock's overall risk management framework. That framework involves discussing risks in a risk controls meetings attended by the General Manager. If the relevant risk cannot be properly addressed at this level, they may be highlighted in the quarterly Board reports (see Section 2.1.1 above) and addressed with the Board. Should the Product team identify the need for reviewing the level of resources dedicated to addressing climate risks, it would express its view to the General Manager in the relevant meeting or through the Board report. Senior management and directors would consider said needs within the context of FundRock's goals and the environment in which it operates and make capital deployment decisions as required by their duties, taking into account the Apex Group's policies.

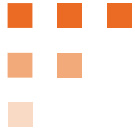
At FundRock, entity-level CRR&O receive the same treatment as all other risks and opportunities in all risk-related process and procedures and at all levels of the organization. As a rule, risks are prioritized based on their likelihood and expected impact.

For Stewart Group's approach to CRR&O and decision making, see Section 4 below.

3.4. Anticipated Impacts

From an institutional perspective, FundRock continues to see changes to the cost of compliance with climate-related policies and regulations as the main anticipated impact of CRR&O. The review of NZ CS 2 in late 2024 reduced the cost pressure for the current reporting year. Looking ahead, FundRock sees substantial uncertainty as both the Ministry for Business, Innovation, and Employment and XRB have opened or indicated their intention to open consultations on the future of the CRD regime. There is a chance that legislation and regulations emerging from these consultations will stabilise the cost of compliance with CRD requirements. Nonetheless, as it is, the data on GHG Emissions will be subject to assurance from the 2025/2026 reporting period onwards. This would significantly increase compliance costs.

As for the Funds, given GHG emissions are a key driver of climate change, companies whose revenues are heavily dependent on said emissions, or that have significant reserves of fossil fuel assets, may be expected to be more exposed to the impact of rising carbon taxes, changing consumer behaviour, and stranded assets in the event of a rapid transition. Some investors may seek to reduce their exposure to the risks faced by such companies. Beyond risk, investors may want to reduce exposure to companies whose activities don't align with their sustainability values. Since the Funds predominantly consist of underlying funds that overweight companies with low emissions intensity and potential emissions from reserves, and exclude or underweight those with high emissions, they may become more appealing to such investors and may potentially grow.



3.5. Transition Plan Aspects of Strategy

FundRock is a fund hosting business. We provide services to domestic and international investment managers who want to operate in Aotearoa New Zealand but would prefer to outsource fund management to us, normally because they believe this to be the most cost-effective way of offering their services in the country.

Our business model is very resilient to investment risks (climate-related or otherwise) thanks to the broad variety of schemes and funds we can accommodate. As long as there is continued demand for managed investment schemes in Aotearoa New Zealand, we can evolve and adapt to political, economic, and societal changes: we can work with existing investment managers to make strategic adjustment to their products, and whenever this proves impractical, new products (more aligned with prevailing market winds) may be developed in collaboration with current or new investment managers, replacing those retired.

FundRock's knowledge of and experience in Aotearoa New Zealand's investment funds market will be invaluable in the process of identifying the adaptations required and assessing the viability of both existing and prospective products. Understanding the CRR&O specifically associated with this market must be part of this.

Dimensional believes that quantitative climate risk models are too unreliable to be useful for risk management of a diversified equity or fixed interest portfolio. Dimensional does not believe that climate-related risk metrics provide actionable insights for investment risk management. Dimensional therefore does not use such models to incorporate climate risks and opportunities into its investment strategies, including assessing resilience of portfolios against explicit climate scenarios. Dimensional instead relies on general risk management principles to manage climate risks and opportunities. These include leveraging the information in market prices, enforcing broad diversification in the design of Dimensional Australia's investment strategies, and encouraging effective board oversight of material risks at portfolio companies. See Section 4 below for further information.

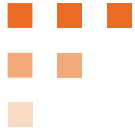
Modelling future economic damages from climate change poses immense challenges. It is unknown where and when physical effects will occur, how quickly climate policies will be introduced, how politics and societal norms will develop, how these developments will affect GDP growth, or what innovations will take place. With all these uncertainties, different climate models can diverge widely in their conclusions.

A growing number of tools attempt to estimate a portfolio's exposure to climate risks. Some concentrate on transition risks. Transition risk models often assume that policies consistent with a particular climate scenario will be enacted and estimate the impact of such policies on portfolio companies. Studies show that, even for the same climate scenario, there is significant heterogeneity in the output from different models of transition risk¹². Other tools focus on physical risks. Modelling the physical risks a company faces requires detailed information about the location and vulnerability of physical assets and supply chains — not just now, but also in the future. Given this complexity, it is unsurprising that the physical risk scores from different providers show substantial variation¹³.

Long time-horizons, deep uncertainties, and non-linearities make modelling the physical impacts of climate change exceptionally challenging. Attempting to forecast how societies and companies will evolve decades into the future magnifies this challenge. Many climate risk models seek to forecast key financial variables such as interest rates, inflation, and commodity prices for 30, 50, or even 80 years into the future. But industry experts and economists have

¹² Bingler, Julia Anna, Chiara Colesanti Senni, and Pierre Monnin. "Understand what you measure: Where climate transition risk metrics converge and why they diverge." *Finance Research Letters* 50 (2022): 103265.

¹³ Hein, Koelbel and Leippold (2021) find that the correlation between firm-level physical-risk scores from six different providers ranges between –0.10 and 0.49. See Hain, Linda I., Julian F. Kölbl, and Markus Leippold. "Let's get physical: Comparing metrics of physical climate risk." *Finance Research Letters* 46 (2022): 102406.



historically performed very poorly at making financial market forecasts¹⁴. Furthermore, a portfolio's exposure to climate risks is typically calculated based on what it holds today. But markets will continue to evolve. Few listed companies have survived in their current form for 20 years or more and several of today's largest companies did not exist 20 years ago. An investor's portfolio today is unlikely a good indication of the portfolio they will hold when anticipated long-term climate risks materialise. Finally, it is difficult to test or calibrate such models, since some of the most impactful manifestations of climate change predicted have not yet materialised.

As a result, while both Stewart Group and Dimensional aim to monitor the changes to climate-related risk regulations and other developments, the Stewart Group intends to maintain the current approach to asset allocation and decision making in the Underlying Funds used within the Funds. A description of Dimensional's sustainability strategy for the Sustainability Funds is detailed in Section 3.5.1 below.

3.5.1. Current Business Model & Strategy

As detailed in the Funds' SIPO, the Stewart Group believes that modern financial markets are relatively efficient, resulting in security prices that reflect all available information as it becomes known and that higher expected returns are associated with higher levels of risk. Within this, there is a belief that targeting certain investment style factors leads to the potential for better risk and return outcomes.

Based on these core beliefs, the following investment principles are applied when undertaking portfolio construction:

- high quality academic research and data analysis are integral parts of portfolio management;
- strategic asset allocation across asset classes and within sub-asset classes is the key determinant of long-term investment outcomes (i.e, returns);
- diversification across a range of geographic regions, asset classes and securities are an important risk mitigation factor and generally contributes to reduced volatility;
- investment style factors relating to a company's size, relative price, and profitability are relevant in determining the long-run expected returns of equities, while fixed interest investments are designed to capture term and credit premiums.
- a disciplined approach to portfolio re-balancing which considers transaction costs and long-term expected returns is beneficial to ensure appropriate risk tolerances are maintained;
- environmental, social, and governance matters impact investment outcomes and therefore are an important consideration of the overall investment process; and
- fees reduce returns to investors and are an important consideration.

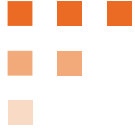
The Scheme has been structured to provide a range of investment options to cater for different investment risk profiles. To achieve the desired risk/return trade-off for each investment option, the relative weighting of each asset class is adjusted.

For example, the Conservative Fund, which targets moderate returns and risk, will hold a higher proportion of lower risk assets, such as cash and fixed interest, than the Growth Fund. Conversely, the Growth Fund, which targets higher returns and risk, will hold a lower proportion of lower risk assets and a higher proportion of higher risk assets, such as shares, than the Conservative Fund.

The Funds are fully invested in underlying funds managed by Dimensional¹⁵, with small amounts of cash held for liquidity purposes.

¹⁴ For example, on efforts to forecast exchange rates, see Meese, Richard A., and Kenneth Rogoff. "Empirical exchange rate models of the seventies: Do they fit out of sample?" *Journal of international economics* 14, no. 1-2 (1983): 3-24, and Rogoff, Kenneth S., and Vania Stavrou. *The continuing puzzle of short horizon exchange rate forecasting*. No. w14071. National Bureau of Economic Research, 2008.

¹⁵ And the Smart NZ Core Equity Trust, as mentioned in Section 1.



Within the universe of eligible securities, Dimensional designs the portfolios of the Underlying Funds to emphasise investment in securities with a higher expected return considering the dimensions described below.

For equities:

- (A) The overall market - stocks have higher expected returns than bonds.
- (B) Company size - small company stocks have higher expected returns than large company stocks.
- (C) Relative price - low relative price or 'value' stocks have higher expected returns than high relative price stocks.
- (D) Profitability - stocks with higher profitability have higher expected returns than stocks with lower profitability.

For fixed interest:

- (A) Bond maturity - bonds that mature further in the future are subject to higher risk of unexpected changes in interest rates. Extending bond maturities generally increases potential returns.
- (B) Credit quality - bonds with lower credit quality are subject to higher risk of default. Reducing credit quality generally increases potential returns.

3.5.1.1. Investment Process

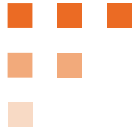
Dimensional seeks to protect and enhance shareholder and bondholder value and may consider climate and sustainability-related information to do so, including when defining and monitoring the investment universe of the portfolios it manages. As part of Dimensional's process for defining an eligible fixed-income universe, it reviews country risks as well as the external and market-implied credit ratings of individual securities. In addition, as part of Dimensional's process for defining an eligible equity universe, it reviews country risks, exchange listing standards, as well as structural, governance-related issues. For example, Dimensional may exclude companies from eligibility if they are closely held; such companies may not have adequate risk controls to protect the interests of minority shareholders against abusive practices by company insiders.

Furthermore, as part of Dimensional's risk management arrangements, it monitors securities in its eligible equity universe for reports of potential involvement in significant controversies, including climate and sustainability-related controversies. If Dimensional believes that a controversy may have a material impact on a portfolio company's financials, it may temporarily exclude securities issued by that company from further purchase in both its equity and fixed interest portfolios. Dimensional's Investment Stewardship Group may also engage with the portfolio company where appropriate for a particular portfolio.

3.5.1.2. Sustainability Approach

Most of the Underlying Funds utilised by the Funds integrate sustainability criteria. Environmental science leads Dimensional to focus on climate change, and climate science identifies GHG emissions as the most significant driver of climate change. Therefore, the Sustainability Funds' approach prioritises reducing exposure to the primary driver of climate change — GHG emissions — while also considering related sustainability concerns, such as a company's land use, toxic waste production, and water management, in a manner that permits company-level sustainability data to be integrated systematically across hundreds or thousands of holdings. Additionally, emissions data are readily available from multiple sources, allowing for better data validation.

The Sustainability Funds evaluate portfolio companies relative to the entire market and to their industry peers using a sustainability scoring system primarily focused on GHG emissions. Securities of portfolio companies with high GHG emissions intensity and potential GHG emissions from reserves may be underweighted or excluded, and securities of portfolio companies with low GHG emissions intensity and potential GHG emissions from reserves may be overweighted. These strategies may also exclude portfolio companies involved in coal, palm oil, factory farming, child labour, tobacco, alcohol, gambling, adult entertainment, controversial weapons, nuclear weapons, personal firearms



and private prisons. With this methodology, investors in the Sustainability Funds can achieve significant reductions in exposure to actual and potential GHG emissions within broadly diversified portfolios.

Please refer to the *Statement of Investment Policy and Objectives* for the Dimensional Investment Funds scheme (available on the [Disclose Register](#)), or the [Additional Information Guide](#) of the underlying Sustainability Funds for further details on how they take into account certain non-financial Sustainability Considerations.

3.6. Transition Plan

Given the resilience of FundRock's business model expressed above, it currently has no plans to change its strategic direction based on CRR&O or adopt any targets for itself. Our core concern will continue to be regulatory transition risks, which have already been integrated into our risk management (see Section 4 below) and governance (see Section 2.1.1 above) processes.

Going forward, FundRock expects that the level of resources dedicated to address CRR&O will increase to accommodate assurance requirements. Otherwise, resourcing and costs are likely to remain stable (in real terms). We expect the funds to pay for all costs associated with the CRD regime and CRR&O via the fees charged from investors. We have not yet increased fees to address these costs, but we may have to do this if they do not stabilise.

As mentioned above, and resulting from its investment philosophy principles, Stewart Group is comfortable with Dimensional's intentions to not change its investment approach, as detailed in Section 4 below.

Dimensional is aware of Aotearoa New Zealand's commitment to net zero emissions by 2050 under the Climate Change Response Act. However, climate scientists and policy experts generally agree that major technological and societal changes—beyond the control of any one actor or industry—will be required for any country, industry or portfolio company to achieve net zero. Dimensional has not yet set a net zero 2050 target for in-scope AUM, as it does not want to commit to a goal without a clear idea of how it can get there.

Stewart Group will retain current asset allocation of the Funds, using the Dimensional strategies that are designed to offer a meaningful reduction in exposure to carbon emissions, without setting any emission reduction goals.



4. RISK MANAGEMENT

FundRock manages entity-level CRR&O directly. We have identified them by referencing applicable regulations, and assessed them by appraising their expected impact, the processes and controls we have in place, and the resources of which we dispose. The processes for monitoring and managing said CRR&O are summarised in Section 3.3.2 above.

The Stewart Group addresses the entity-level climate-related risks with the same approach as all other business risks. As for assessing CRR&O for the products it offers, including the Funds, a leading consideration is to choose a reliable and skilled underlying investment manager, that has a robust process in place.

Stewart Group accepts Dimensional's approach to climate related risk assessment within the sustainable strategies used in the Funds' portfolios. Dimensional believes that company specific risk and broad systemic risks that are material to company valuations are priced by capital markets. These risks include both physical and transitional risks associated with climate change.

In recent years, academics have done a great deal of work to try to understand whether markets respond to climate-related information. As Dimensional discusses in its research paper [Climate Change and Asset Prices](#), that generally seems to be the case. Studies find that cities exposed to flooding risk face higher long-term borrowing costs.¹⁶ Another study finds that stock prices of oil and gas companies fell when a landmark paper on the risk of fossil fuel assets becoming stranded was published.¹⁷ Given the uncertainty involved, there is ongoing debate about whether climate risks are priced correctly by the market. However, numerous studies show investors have a poor track record of outguessing market prices.¹⁸ In other words, the collective wisdom of the market is typically better than any individual investor at pricing risks and opportunities. Dimensional sees no reason why climate risks should be an exception.

That does not mean the market portfolio is immune from climate risks. If global warming, carbon taxes, or other material developments differ from current expectations, assets will be repriced. The market is also unlikely to be pricing environmental or societal risks that are not expected to be material to a company's valuation. Many things that people value — such as rich biodiversity, natural beauty, temperate climates, and quality of life — may not be priced by the market.

But when it comes to managing climate risks, Dimensional believes that market prices are the best place to start. Market prices are derived from a much richer information set than can be captured by any model. Dimensional therefore uses market prices extensively throughout its investment process. For example, its approach to portfolio constructions for equity strategies uses market prices as a starting point for risk management, by adjusting a security's weight in the portfolio based on its current price and relying on current market prices to provide real-time information about changes in expected returns.

Sections 3.3.2, 3.5, and 3.5.1 above include more details on how the Stewart Group manages CRR&O for the Funds.

¹⁶ See, for example Hallegatte, Stephane, et al. 2013. "Future Flood Losses in Major Coastal Cities." *Nature Climate Change* 3, no. 9: 802–806; and Hinkel, Jochen, et al. 2014. "Coastal Flood Damage and Adaptation Costs Under 21st Century Sea-Level Rise." *Proceedings of the National Academy of Sciences* 111, no. 9: 3292–3297.

¹⁷ See Griffin, Paul A., et al. 2015. "Science and the Stock Market: Investors' Recognition of Unburnable Carbon." *Energy Economics* 52: 1–12.

¹⁸ See, for example, Dimensional Fund Advisors, *Mutual Fund Landscape 2021: A Study of US-Based Mutual Fund Performance*, available at https://my.dimensional.com/xlink/6JZObWgaeCzj5SzFFo5UbD5C80mkledkb2VDvzK8bl-gxa2PTLFYXzmiPd4CwYpMktavv6eiHAc3_JwtZkwhmY6UOniRqE63jicLLZNd4xvcF58-SyRbJYzY3HYeZunN9snpwET40lrG7ynsg-gQfTSxqLQdPOLIX2cn4rbXMY1; S&P Dow Jones Indices, *SPIVA Scorecards*, available at <https://www.spglobal.com/spdji/en/research-insights/spiva/>; Fama, Eugene and Ken French, "Luck versus Skill in the Cross-Section of Mutual Fund Returns," *The Journal of Finance*, Vol. LXV, No. 5 (October 2010), available at <https://mba.tuck.dartmouth.edu/bespeneckbo/default/AFA611-Eckbo%20web%20site/AFA611-S8C-FamaFrench-LuckvSkill-JF10.pdf>.



4.1. Prioritisation Process

FundRock prioritizes entity-level risks based on their likelihood and expected impact. Risks are classified across both axis and assigned a risk rating. Both inherent and residual ratings are considered¹⁹.

These risks are reassessed every other month according to the processes summarised in Section 3.3.2 above.

Regarding portfolio-level CRR&O, Dimensional does not directly prioritise climate risks relative to other types of risks.

4.2. Short-, Medium-, and Long-Terms

For CRR&O, FundRock uses the time horizons adopted for scenario analysis (see Section A.i below) for risk assessment.

Regarding portfolio-level CRR&O, Dimensional does not explicitly define short-, medium-, and long-term horizons as part of its climate risk management process. However, given the forward-looking nature of market prices, Dimensional believes that current information about material climate risks over all time horizons is relevant to current market prices. Dimensional expects material news about a company's plans for managing long-term climate risks to be reflected in market prices today. Irrespective of an investor's holding period, material climate risks across all time horizons may be relevant.

4.3. Parts of Value Chain Not Included

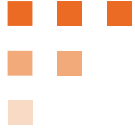
The risk assessment process considered fund management, investment management, and the Funds' investments. Distribution risks were not considered because they do not directly pertain to the Funds and FundRock does not believe their analysis would provide material information for the Funds' investors.

4.4. Assessment Frequency

FundRock assesses entity-level risks every other month, following the processes summarised in Section 3.3.2 above.

Dimensional expects that information about climate risks is reflected in market prices, and so the assessment frequency is a function of Dimensional's use of market prices. Dimensional manages the Funds using a daily investment process which incorporates the latest prices. A strong link to current price is critical because up-to-the-minute news and changes in expectations, including those related to climate risk, are reflected in current prices.

¹⁹ An inherent risk is that before any controls or mitigations are applied, while a residual risk is that left after this is done. The inherent risk of losing a house to a fire is that of simply moving into it; the residual risk is that after smoke detectors and sprinklers have been installed and fire insurance has been acquired.



5. METRICS & TARGETS

FundRock has decided not to publish metrics for the Funds in these statements.

In late 2024, Adoption Provision 4 was amended to exempt climate-reporting entities from publishing Scope 3 emission in their first *and second* reporting period²⁰. In the statements for its first reporting period, FundRock opted *not* to use this adoption provision; however, changes in circumstances have led to a review of this decision. While FundRock was aware that MIS managers may have been exempted from publishing GHG emissions in their first reporting period, at the time it was uncertain whether this was an acceptable interpretation of legal and regulatory requirements. It has since become clearer that all funds' emissions are considered Scope 3 from perspective of the CRD regime, allowing FundRock to reconsider this decision.

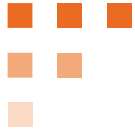
Specifically regarding GHG emissions, FundRock relies on the exemption granted by Adoption Provision 4. FundRock considered publishing metrics in other categories²¹ and has come to conclude that (under current circumstances) they are not material for the Funds, for the following reasons:

- (A) **Lack of Comparability:** while GHG emissions metrics have shortcoming which makes it difficult for investors to compare the values reported by different fund managers, these challenges are exponentially increased when it comes to other metrics. There is little to no consistency on which metrics are reported, and even metrics that share a name (such as climate value at risk or temperature alignment) can vary significantly with data provider.
- (B) **Lesser Utility:** thanks to the higher reliability of GHG emissions, they are generally seen as the standard by which funds' climate performance is assessed. They also provide context for the interpretation of other metrics. Publishing other secondary metrics only (without the underlying GHG emissions data) would not allow investors to make informed decisions – in fact, they could be misleading, as investors may not appreciate their shortcomings.
- (C) **Lesser Relevance:** the Funds make no ESG, sustainability, or “green-ness” claims. FundRock does not expect climate metrics to play a material role in investors and prospective investors' decisions to invest in or divest from the Funds. Furthermore, since the publication of the climate statements for the previous reporting period FundRock has seen no evidence that investors are interested in this data.
- (D) **Cost:** there are substantial costs associated with acquiring climate metrics from data providers, which are borne by the Funds' investors. Given the above, FundRock does not believe these costs to be justified.

These decisions will be reviewed for the next reporting period.

²⁰ See [CS2](#). Note that MIS Managers are not required to disclose Scope 1 and 2 GHG emissions because S4610 of the Financial Markets Conduct Act 2013 defines MIS Managers as climate reporting entities in respect of the schemes they manage, and those schemes do not have Scope 1 and 2 GHG emissions. In accordance with the Greenhouse Gas Protocol (GHG Protocol), all the emissions of the investee companies are considered Scope 3 (financed) emissions for the Fund[s].

²¹ Transition risks, physical risks, climate-related opportunities, capital deployment, internal emissions price, and remuneration, as per CS1, 22.



SCHEDULE A. SCENARIO ANALYSIS

A.i. Time Horizons

FundRock adopted the time horizons set in the Sector Scenario Analysis:

Term	Time Horizon
Short	1-3 Years
Medium	5-10 Years
Long	30+ Years

This decision was made to maintain consistency with the Sector Scenario Analysis and for the reasons below;

- (A) Short-term horizon is aligned with short-term investment horizons.
- (B) Medium-term horizon is aligned with strategic planning and medium-term investment horizons (e.g., first home acquisition).
- (C) Long-term horizon is aligned with aspirational planning (e.g., mission and purpose), long-term investment horizons (e.g., retirement) and international decarbonisation targets.

A.ii. Scenario 1: Orderly Transition

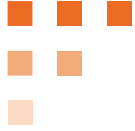
In the *Orderly* scenario there are steady and constant changes to technology, policy, and behaviour to support the transition to a low carbon global economy – including increasing carbon prices. The long-term chronic impacts from historic greenhouse gas (“GHG”) emissions occur nonetheless, but the coordinated and timely action succeeds in preventing the worst.

Increasing carbon prices (NZD 250 and USD 400 by 2050, in Aotearoa New Zealand and globally respectively) and regulatory requirements (such as mandatory climate reporting) result in increasing costs for emissions-intensive entities. Societal changes, supported by legally mandated reporting, lead investors and lenders to withdraw financing and funding from emission-intensive sectors and entities in favour of those supportive of decarbonisation.

The development of low-emissions technology, coupled with customers’ preference for low-emissions products and business, impacts the viability of entities who offer neither, especially in the energy and transport sectors. Emissions-intensive sectors and entities are driven to last ditch decarbonisation attempts to maintain the viability of their businesses as they struggle with increasing costs and disinterest from investors and lenders.

While the reduction in global GHG emissions helps minimise the most significant physical impacts of climate change, minor impacts on sectors and entities reliant on the natural environment for their outputs or service delivery are nonetheless felt.

At a geography level, entities in economies that historically relied on emissions-intensive sectors and that have been slow to transition face economic impacts in the short-term – as do governments, who feel the economic impacts as worsening conditions reduce their revenue and expenditure is required to keep pace with transition being made by the rest of the world (e.g., electrification of transport infrastructure).



A.ii.a. Emissions Pathways

Global emissions fall at accelerating rates, averaging a 3.4% reduction per year. Net global emissions reach 25.9 BtCO₂e (billion tonnes of CO₂-equivalent) by 2030 and –294.82 MtCO₂e by 2050²². This is cause and effect of the following²³:

- Consumer preferences shift towards low-emissions products and services. Climate activism (including through litigation) and negative media attention impact entities perceived as not taking action. Population growth slows down in the medium term, reaching 8.5 billion in 2050.
- Policies [e.g., national and international emissions reduction requirements, carbon taxes (including border adjustments), and the ban of emission-intensive activities] are adopted globally. Global carbon prices reach USD 124 per tonne in 2030 and USD 400 by 2050.
- Development of low emissions and emissions abatement technology accelerates, and technologies are rapidly adopted. Electric vehicles see widespread adoption but heavy trucks and aviation struggle to reduce emissions. 55% of global energy production (and 61% of electricity) comes from renewable sources by 2030, and 67% by 2050 (88% of electricity). Emissions from processes such as cement and steel making remain hard to abate, however.
- Farmers implement ambitious changes to become more emission-efficient, reducing biogenic methane through widespread adoption of new technology and low emissions stock variants, and conversion of land from livestock to horticulture is substantial. The waste sector also reduces methane emissions, with nearly three quarters of organic waste recovery rate by 2050 and major expansion of landfill gas capture.
- Successful limitation of GHG emissions curbs the most significant physical impacts of climate change. Global average temperature increases by 1.4°C by 2100.
- The global economy benefits from a stable transition to a low carbon economy, with global GDP reaching USD 289 trillion by 2050 (recovering from USD 176 trillion in 2030). The Aotearoa New Zealand economy is also positively impacted. The challenges of transformational change (such as job losses and skill shortages) are managed effectively with the help of stable climate, economy, and international relations.

A.iii. Scenario 2: Too Little, Too Late

In the *Too Little, Too Late* scenario, transition to a low carbon economy is misaligned and delayed across different parts of the world. Certain geographies (as designated in the *Climate Scenario Narratives for the Financial Services Sector: the European Union, Japan, China, the United Kingdom, the United States*²⁴, Canada, and Aotearoa New Zealand —the “**Early Movers**”) introduce policies that bring about net-zero emissions by 2050. But in other parts of the world there is very little action, with fossil-fuelled development continuing throughout much of the remaining first half of the century. Global efforts to address climate change begin to align and exceed those by Early Movers from mid-century, but changes come too late to prevent wide ranging acute and chronic physical climate impacts.

Emissions-intensive entities located in Early Mover economies face the following pressures:

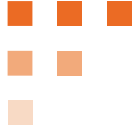
- increased costs, resulting from increased carbon emissions prices and regulatory requirements; and
- those without emissions reduction or climate-risk management plans, reduced sales and revenue, increased difficulty and cost for raising funds, decreased employee attraction and retention, and supply chain impacts, resulting from changes to stakeholder preferences.

Impacts are lesser outside these regions – except for exporters, who experience the same impacts as entities in Early Movers’ regions, including through carbon taxes.

²² *Climate Scenario Narratives for the Financial Services Sector*, p 31.

²³ The emissions pathways described in Subsections A.ii.a, A.iii.a, and A.iv.a below were adapted from *Climate Scenario Narratives for the Financial Services Sector*.

²⁴ Recent developments in American politics would challenge the assumption that the United States would be an early mover. Scenario analysis looks 30 years forward, though, and it is still too early to determine the long-term impact of these developments.



Significant physical climate risks impact sectors and geographies at varying degrees:

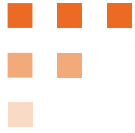
- Agricultural output and renewable energy generation are impacted by extreme weather events and gradual weather changes, which decrease revenue and increase costs. More fertiliser is needed to grow crops, and coal or gas is needed to generate energy, increasing emissions and physical impacts;
- Extreme weather events impair the ability of entities in the communication, utilities, information technology, and transport sectors to provide services. Customer satisfaction and revenue decline, and operational costs (repair costs and higher insurance premiums) increase;
- Significant financial impacts reduce demand for discretionary products and services;
- The health sector deals with increased demand as physical climate impacts and reduced economic stability affect individuals' health;
- At a geography level, Asia (ex China and Japan) and the Middle East are the most impacted, both because of the magnitude of impacts and inadequate adaptation. In Asia, this manifests as floods; in the Middle East, as water stress and drought. Food security, water availability, and housing challenges increase, leading to political unrest and migration. There are wide-ranging effects on governments and economies in these regions: the costs of disruptions and remediation are high both for public and private entities, and the latter face increased costs and reduced revenue.

A.iii.a. Emissions Pathways

Emissions fall steadily and at accelerating rates (particularly after 2030), but slower than in the *Orderly* scenario, averaging about 1% per year. Global emissions reach 35.1 BtCO_{2e} by 2030 and 26.7 BtCO_{2e} by 2050 – 31% less than 2020²⁵, but substantially more than zero. This is cause and effect of the following:

- High transition risks and medium physical risks lead to significant financial impacts and a decline in economic growth by the medium term: global GDP reaches US 274 trillion by 2050. Coupled with a global population of 9.2 billion people, standards of living decline for many across the globe.
- Behavioural changes and social pressure drive decarbonisation in Europe, the United States, Canada, Australia, and Aotearoa New Zealand in the short term, but the same does not occur elsewhere until the medium term. Developed nations prioritise their own transition costs; regions with limited resources experience higher negative physical impacts. Marginalised nations are further exposed to poverty and instability (political and economic). Migration and geopolitical tensions increase. Challenges in agriculture, food security, and water availability exacerbate these trends.
- The Early Movers adopt climate policies in the short term, but elsewhere there is very little action until the mid-century, when climate policies begin to align and accelerate. Global carbon prices reach USD 34 per tonne in 2030 and USD 50 in 2050.
- Development of low emissions and emissions abatement technology is delayed; even early movers make limited progress until closer to the medium term. 19% of global energy production (and 46% of electricity) comes from renewable sources by 2030, and 37% by 2050 (71% of electricity). Much of Aotearoa New Zealand's progress is driven by the rise in renewable electricity and the conversion of low-process heat boilers to biomass and electricity.
- Delay in abatement efforts results in the materialisation of various physical climate risks. Average temperature increases by 2.7°C by 2100. The increased energy contained in the atmosphere drives greater extreme weather events, especially in the latter half of the century. Impacts are distributed unevenly: temperatures increase more at higher latitudes and in the Northern hemisphere; precipitation decreases in parts of northern and central Europe, eastern Africa, and southern Australia, but increases in parts of South and East Asia; and Sub-Saharan Africa experiences both increases and decreases in precipitation. Sea levels rise by 0.20m in 2050 (0.56m by 2100), affecting coastal areas and island countries. These changes impact food security (especially in marginalised regions); cause loss of land, damage to infrastructure, and displacement of populations; and impact coastal ecosystems and trade routes.

²⁵ *Climate Scenario Narratives for the Financial Services Sector*, p 40.



A.iv. Scenario 3: Hothouse

In the *Hothouse* scenario there is little change towards a low emissions future despite increasing social, economic, and environmental degradation. Emissions continue to grow higher throughout the remaining 21st century and lead to the increasing severity of extreme weather in its first half, with the addition of rising sea levels in the later half.

Entities in most sectors have increased costs (such as repair and remediation costs) and reduced productivity, and therefore reduced profitability.

In the agricultural sector, the increased frequency of extreme weather events and gradual weather changes (such as temperature and precipitation) have significant impacts on:

- stock and crop quality and yield;
- property, plant, and the equipment required to run facilities, provide access to water and food access, and prevent pest proliferation; and
- the infrastructure required for both downstream and upstream supply chain access.

There are also material impacts to the utilities sector, with a risk to potable water supplies, production of energy (particularly hydropower), and delivery of services (such as wastewater treatment). Transport infrastructure and services are affected too.

There is increased demand in the health sector, as in high-emitting sectors – increased cooling requirements because of higher mean temperatures, increased need for coal and gas energy because of impacts upon renewable energy generation, and increased need for fertilisers. With growth in high-emitting sectors limited by climate policies, entities enjoy increased profit margins.

All geographies are affected by physical climate impacts, which are exacerbated by the lack of investment in adaptation infrastructure by governments in the short- and medium-term.

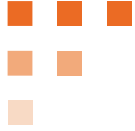
Financial impacts follow. Demand for sectors such as consumer discretionary falls, and sectors providing necessities deal with impacts on margin and difficult questions as costs increase but consumers' ability to pay for goods and services is reduced. Food and water shortages and declining health and financial outcomes drive political unrest and further destabilise economies. Governments come under increasing pressure to support individuals, businesses (especially those providing essential services), and public health services while facing significant repair and remediation costs. Financial flow on effects reduce tax income, putting them under further strain.

A.iv.a. Emissions Pathways

Emissions increase slightly until 2025, and then decrease at discrete rates, averaging about 0.4% per year. Global emissions reach 38.6 BtCO₂e by 2030, and 34.3 BtCO₂e by 2050²⁶ (28% more than in the *Too Little, Too Late* scenario). This is cause and effect of the following:

- Behavioural change and social pressure for decarbonisation are limited. The focus on growth by any means necessary drives higher rates of economic inequality, increasing political instability and geopolitical tensions. There is an increase in displaced people seeking to migrate to safer living conditions while physical impacts increase logistics and construction costs.
- The European Union, the United Kingdom, the United States, Canada, and Aotearoa New Zealand are early adopters of progressive climate policy, but eventually roll them back. Japan, China, and Australia pause the development and implementation of climate policies currently under development. Global carbon prices drop to USD 6 per tonne in 2030 and remain stable until 2050. Investment in adaptation is minimal.

²⁶ *Climate Scenario Narratives for the Financial Services Sector*, p 49.



- There is little technological change to support emissions reduction, and fossil fuels continue to be the dominant source of primary energy: 16% of global energy production (and 42% of electricity) comes from renewable sources by 2030, and 26% by 2050 (60% of electricity).
- Unabated productivity by emission-intensive industries pushes for high economic growth, but the physical impacts of climate change eclipse that: global GDP reaches USD 175 trillion in 2030, and USD 273 trillion in 2050. With a global population of 8.6 billion people by 2050, means average living standards are lower than that in the *Orderly* scenario, but better than that in the *Too Little, Too Late* scenario (though “surplus” is not evenly distributed). Logistics are affected by events such as storms and flooding, disrupting trade.
- Fossil fuel-based fertilisers and machinery underpin agricultural growth, but in the long term the impacts of extreme weather makes it increasingly difficult to sustain said growth.
- Global average temperature rises by 4.4°C by 2100, leading to severe physical impacts. They are similar to those in the *Too Little, Too Late* scenario, but worse across the board.

A.v. Sources of Data

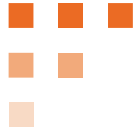
The scenarios described in this Statement were produced during the 2023/2024 reporting year using data from the Sector Scenario Analysis. FundRock has also consulted the Network for Greening the Financial System’s scenarios portal²⁷ to enhance its understanding of climate change in general and the Sector Scenario Analysis in particular.

²⁷ See <https://www.ngfs.net/ngfs-scenarios-portal/>. This includes the *Guide to climate scenario analysis for central banks and supervisors* mentioned above, the *Phase 4 Scenario Explorer*, *NGFS Scenarios for central banks and supervisors*, and *Climate impact explorer*.



SCHEDULE B. CLIMATE-RELATED RISKS

Name	Type	Term	Sector/Geography	Description
Disruption to Business Operations	Physical	Medium/Long	All/Global	<ul style="list-style-type: none"> • Increase in extreme weather events causing damage to physical assets [e.g., facilities, equipment, infrastructure (such as roads, airports, ports, or data centres)], disabling utilities (such as energy), or otherwise disrupting services or operations. • Increase in temperature increasing demand for energy. • Increase in extreme weather events impacting employees' ability to work or customers' ability to access services.
Economic Impacts on Customers (Physical)	Physical	Medium/Long	All/Global	Second order effects of climate-change (such as job-loss, potential declines in economic growth, population migration, geopolitical conflict, etc.) affecting financial position of customers/potential customers.
Increased Carbon Price	Transition	Medium/Long	All/Global	<ul style="list-style-type: none"> • Energy, materials, operations, or transport/distribution increasing in cost due to carbon price. • Emissions may be subject to carbon price, increasing operational costs.
Large Amount of Policy Intervention	Transition	Short/Medium	All/Global	Policy intervention (e.g. high carbon price, large climate funds, disclosure requirements, emission reduction targets) reducing an economy's GHG emissions intensity and driving innovation.
Mean Temperature Increase	Physical	Medium/Long	All/Global	Increasing mean temperatures (i) making pests and pathogens (human, animal, and plant-based) outbreaks more frequent and severe, posing a threat to both human health and food security; (ii) negatively impacting agriculture yields due to the increased heat stress experienced by plants and animals; and (iii) increasing the risk of geographical movement disruption (people and goods) due to a desire to minimise spread of disease.
Stakeholder Preference Change	Transition	Short/Medium	All/Global	Increasing stakeholder expectation of entity to be proactive in reducing their emissions and in addressing their climate-related risks.
Water Stress & Drought	Physical	Medium/Long	All/Global	Lack of adequate precipitation causing reduced soil moisture or groundwater, diminished stream flow, crop damage, and general water shortage.



Name	Type	Term	Sector/Geography	Description
Wildfire	Physical	Medium/Long	All/Global	<p>A wildfire is an uncontrolled fire that burns in the wildland vegetation, often in rural areas. Wildfires can burn in forests, grasslands, savannas, and other ecosystems, and have been doing so for hundreds of millions of years. They are not limited to a particular continent or environment.</p> <p>Wildfires can cause death, extreme infrastructure damage, soil fertility and health conditions of livestock/individuals exposed to smoke.</p>