Private Wealth Series Climate-related disclosures

BNZ Investment Services Limited

Contents

Overview

Overview

For over 160 years, Bank of New Zealand (BNZ) has played an integral role in building Aotearoa New Zealand's social and economic future. We have a part to play in developing a more sustainable global financial system.

BNZ Investment Services Limited (BNZISL) is the provider of investment products for BNZ and its customers and, as at 31 March 2024, was a wholly-owned subsidiary of BNZ. See the Important information section below for details of the change of ownership of BNZISL.

BNZISL investment products (referred to throughout this document collectively as our 'investment portfolio') includes the following three Managed Investment Schemes, collectively the 'Schemes':

- BNZ KiwiSaver Scheme
- YouWealth
- Private Wealth Series.

These investment products help customers grow their investments, while reducing the potential for harm these investments have on the environment and our communities.

Important information

On 1 May 2024, National Australia Bank Limited ('NAB'), the ultimate owner of BNZISL, Jarden Wealth and Asset Management Holdings Limited ('Jarden Wealth') combined their New Zealand advice and asset management businesses (BNZISL, JB Were NZ, Jarden Wealth, and Harbour Asset Management Limited ('Harbour')) under a newly formed entity called 'FirstCape'. BNZISL is now a wholly-owned subsidiary of Harbour and is no longer owned by BNZ. From a customer perspective, BNZISL will continue to manage the Schemes and provide wealth products and services for distribution to BNZ customers under a distribution agreement between BNZ and BNZISL. As a new evolving advice and asset management business, FirstCape will establish its own governance and risk frameworks relating to climate risk reporting. The governance structure and risk management processes contained in this report are correct for this reporting period (for the year ended 31 March 2024 (FY24)); however, we expect the processes outlined in our Governance and Risk Management sections to evolve in the future.

BNZISL, a wholly-owned subsidiary of Harbour, is the manager and issuer of the Private Wealth Series (the Scheme). A product disclosure statement is available at bnz.co.nz

Investments in the Private Wealth Series Scheme are not bank deposits or other liabilities of BNZ or any other member of the NAB Group of companies (NAB Group). They are subject to investment risk, including possible delays in repayment. You could get back less than the total contributed. No person (including the New Zealand Government) guarantees (either fully or in part) the performance or returns of the Private Wealth Series Scheme or the repayment of amounts contributed. NAB, the ultimate owner of BNZ, is not a registered bank in New Zealand, but a licensed bank in Australia and is not authorised to offer the products and services mentioned in this document to customers in New Zealand.

BNZ Investment Services Limited uses the BNZ brand under licence from Bank of New Zealand, whose ultimate parent company is National Australia Bank Limited. No member of the FirstCape group (including BNZ Investment Services Limited) is a member of the NAB group of companies (NAB Group). No member of the NAB Group (including Bank of New Zealand) guarantees, or supports, the performance of any member of FirstCape group's obligations to any party.

Our net zero ambition

Climate change is one of the most significant and pressing issues of our time, with the potential to disrupt the domestic and global economy. We're committed to understanding and reducing the risk that climate change poses to our customers and communities. Our climate strategy builds on kaitiakitanga – care for the natural world – and articulates our ambition to align our overall investment portfolio with net zero greenhouse gas (GHG) emissions by 2050 at the latest[1] for which we have set 2030 targets using science-aligned guidelines.

Our 2030 targets and how we will achieve these targets are set out in the Strategy section below.

As a signatory to the Principles for Responsible Investment ('PRI'), and the Stewardship Code Aotearoa New Zealand, we're committed to incorporating environmental, social and governance ('ESG') issues into our investment decisions. This includes lowering GHG emissions across both our operations and our portfolios to help to limit global warming to no more than the 1.5°C threshold, as agreed in the Paris Climate Agreement.

Climate risk reporting is an important focus for us. In October 2021, the Financial Sector (Climate-Related Disclosures and Other Matters) Amendment Act 2021 was passed, which requires large managers of registered Managed Investment Schemes, among others, to prepare climate statements in compliance with the External Reporting Board (XRB) Climate Standards. These new standards are based on the recommendations of the G20 Taskforce for Climate-related Financial Disclosures (TCFD), aligning with the Paris Climate Agreement goal.

About this report

This report is the first climate-related disclosure document for the Private Wealth Series Scheme (the 'Scheme').

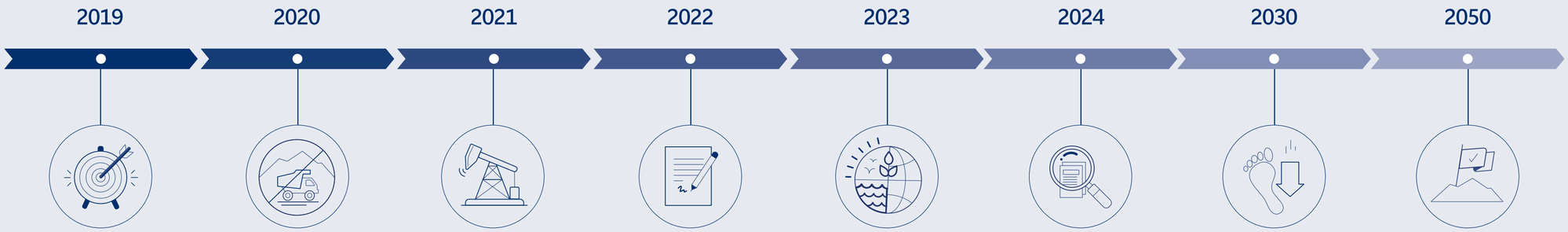
Over the past 12–18 months we've built the capability and frameworks required to produce ongoing climate-related disclosure reporting across our investment portfolio, including the Scheme.

This year's report builds on the net zero GHG emissions commitments we made in 2021, to seek to achieve net zero financed emissions by 2050 across our investment portfolio, and details our progress against our recorded emissions targets as at 31 March 2024.

[1] This currently covers scope 1 and 2 GHG emissions for investments of the Scheme. Our targets do not include the use of offsets or carbon credits by BNZISL to achieve GHG emissions reductions, but offsets could be used by our investee companies (we do not currently collect that level of information).

0.1 - Our roadmap towards our net zero ambition

Ambitions and targets



2019

Signed up to the PRI

2020

Divestment of oil and gas companies actively involved in the Arctic or the Antarctic.

Divestment of companies which are actively involved in tar sands oil extraction.

Divestment of thermal coal companies.

2021

Broad divestment of oil and gas and thermal coal companies.

Six-monthly (ongoing) reporting of portfolio engagement activity by our underlying managers.

Ambition to align our investment portfolio to net zero GHG emissions by 2050.

2022

Founding signatory to the Stewardship Code Aotearoa New Zealand.

Progressing a solution to enable the capture of climate data for investments held by our funds.

2023

Building climate capability and frameworks including CRD reporting.

Quarterly (ongoing) engagement meetings with our underlying managers, with a focus on climate risk and opportunities.

2024

BNZISL Climate Action Plan published within updated Responsible Investment policy.

First BNZISL Climate-related disclosures (CRD) report.

BNZISL's Stewardship Code Aotearoa New Zealand report to be published, including engagement outcomes.

2030

We aim to meet or exceed a 50% reduction in our total Weighted Average Carbon Intensity (WACI) from a 2019 baseline by 2030 for scope 1 and 2 of investee companies.

2050

Net zero GHG emissions across the investment portfolio.

Continuing to build our climate-related capability.

Scope of this report

This report has been prepared by BNZISL, the issuer and manager of the Scheme and covers each of the funds within the Scheme.

The Scheme is comprised of the following funds (the 'Funds'):

- International Equity Fund
- Australasian Equity Fund
- International Fixed Interest Fund
- NZ Fixed Interest Fund
- Cash Fund.

This report contains our current assessment of the future climate-related risks and opportunities in relation to the Scheme, for the year ended 31 March 2024. We've focused on baselining our climate risk exposure and progressing a solution to enable the capture of climate data for investments held by the Funds in the Scheme.

Operational GHG emissions arising from BNZISL as an operating entity are not included within this report. BNZISL's operational GHG emissions until September 2023 are included in the BNZ Climate Report.

This report or Climate-related disclosure (CRD) comprises a set of individual climate statements for each Fund and contains BNZISL's disclosure of material information for BNZISL's 'primary users', particularly current and future investors. This report will be publicly lodged for the first time for the reporting period ended 31 March 2024 by no later than 31 July 2024.

For investors, this CRD will result in more transparency around the targeted reductions in the GHG emissions of the Scheme and highlight the climate-related physical and transition risks and opportunities. Customers and investors will also have access to a broad range of climate metrics and disclosures, together with information on how we are tracking to our targets over time.

BNZISL expressly disclaims all liability for any loss (direct, indirect, consequential, or otherwise) or damage arising from the use of this CRD. As noted above, this CRD contains BNZISL's current assessment of the future climate-related risks and opportunities, which could affect its business, investments 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 or statements about the future performance of BNZISL. BNZISL has set out the basis and limitations of its analysis in this CRD and reserves the right to revisit its assumptions and assessments as it develops its understanding of both climate-related risks and opportunities, and its response to climate change.

This section should be read together with the limitations identified elsewhere in this CRD. Whether or not BNZISL meets targets or commitments contained in this CRD is subject to known and unknown risks and uncertainties and will depend on a number of factors outside of its control, including, but not limited to, governmental policy, regulatory and economic factors, and the actions of its investee companies and customers.

Cautionary note regarding forward-looking statements

This CRD contains statements that are, or may be deemed to be, forward-looking statements, including climate-related goals, targets, pathways, ambitions, related risks, and opportunities, as well as BNZISL'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 climate-related risks and opportunities will not be achieved.

Many of the assumptions, standards, metrics, and measurements used in preparing this CRD continue to evolve and are based on assumptions believed to be reasonable at the time of preparation, but should not be considered guarantees. As a result, the assumptions and judgements underlying climate-related metrics are uncertain and limit the extent to which climate-related metrics are useful for decision-making. The measures and forward-looking statements in this CRD reflect BNZISL's best estimates, assumptions, and judgements (including in relation to investee companies, customer and other third-party data over which BNZISL has no control) as at the date of the CRD, however, the uncertainty in climate-related metrics, methodologies and modelling may lead to BNZISL changing its views in the future.

Certain statements made in this CRD including in relation to climate-related scenario analysis and risk assessment use a greater number and level of assumptions and estimates and are over longer time frames than many other disclosures. These assumptions and estimates are highly likely to change over time. Certain statements in this CRD are based on hypothetical or severely adverse scenarios and assumptions, and these statements should not necessarily be viewed as being representative of current or actual risks or forecasts of expected risks. In addition, the data underlying our climate analysis and strategy is often incomplete and remains subject to change over time. As a result, we expect that certain disclosures made in this CRD are likely to be amended, updated, or restated in the future as the quality and completeness of our data and methodologies continue to improve.

Forward-looking statements may also be made – verbally and in writing – by BNZISL's directors or management in connection with this CRD. Such statements are subject to the same limitations, qualifications, and assumptions set out in this CRD. BNZISL does not undertake to update any forward-looking statement, whether written or oral, that may be made, from time to time, by BNZISL or on its behalf, aside from its requirements to publish annual climate statements under the Financial Markets Conduct Act 2013.

Other important information

The CRD is provided to inform readers, but does not take into account any circumstances of the reader, nor should it be regarded as financial advice or earnings guidance, nor is it audited. As a result, readers should make their own assessments and not place undue reliance on this CRD.

This CRD is intended to provide information from a different perspective and in more detail than is required to be included in disclosure statements, offer documents, other securities offering materials or regulatory reports and documents. While certain matters discussed in this CRD may be of interest and importance to our customers and other stakeholders, the use of the terms 'material', 'significant', 'important' or similar words or phrases should not be read as being equivalent to the level of materiality used for the purposes of offering securities under other laws and regulations. 'Materiality' in the context of this report refers to the definition of that term in the XRB's Climate Standards, which is specific to the climate-related disclosure regime.

Nothing in this CRD shall constitute, or form part of, an offer to sell or a solicitation of an offer to buy or subscribe for any security or other instrument of BNZ or any of its affiliates or be considered an invitation, recommendation or inducement to enter into any investment activity. Furthermore no part of this CRD shall form the basis of, or be relied upon in connection with, any contract, commitment or investment decision. Offers to sell, sales, solicitations of offers to buy, or purchases of securities issued by BNZISL or any of its affiliates may only be made or entered into pursuant to the appropriate offering materials prepared and distributed in accordance with the laws, regulations, rules and market practices of the jurisdictions in which such offers, solicitations or sales may be made. Professional advice should be sought prior to any decision to invest in securities.

Third-party references and website references and/or links throughout this CRD are provided for convenience only, and the content on the referenced websites is not incorporated by reference into this document. Such third-party references and website references and/or links do not imply an affiliation, sponsorship or endorsement of any party.

See the important information contained in the Appendices to this CRD, including the Glossary in Appendix 3 for a list of defined terms used in this document.

Next steps

In addition to our CRD, we have also published climate targets and actions in our Responsible Investment Policy ('RI Policy'). Our Climate Action Plan in our RI Policy lays out actions we have undertaken and will take to help reduce the carbon intensity of the Scheme as a whole, to align with our aspiration to achieve net zero GHG emissions in our investment portfolio by 2050. We believe the financial sector and the investment community have a crucial role to play in Aotearoa's response to climate change and supporting the global transition to net zero GHG emissions.

We all need to find ways to reduce fossil fuel reliance, improve energy efficiency and switch to low-carbon energy sources; and we need to do this on a global scale. The actions required to help achieve this goal include assessment of climate-related physical and transition risks and opportunities as part of our investment processes, and will help manage risk to the investments in our Funds, facilitate the alignment of investment portfolios to net zero GHG emissions by 2050, and allocate capital where it's needed to achieve these goals.

Adoption of Aotearoa New Zealand Climate Standards

The Scheme's CRDs contained in this document comply with Aotearoa New Zealand Climate Standards issued by the XRB. This document includes all material disclosures in relation to the Funds. In preparing its CRDs for all Funds within the Scheme, we have elected to use Adoption provision 1, 2, 4, 6 and 7 in Aotearoa New Zealand Climate Standard 2: Adoption of Aotearoa New Zealand Climate Standards (NZ CS 2):

- Adoption provision 1: Current financial impacts Aotearoa New Zealand Climate Standard 1: Climate-related Disclosures (NZ CS 1)
- Adoption provision 2: Anticipated financial impacts NZ CS 1
- Adoption provision 4: Scope 3 GHG emissions NZ CS 1
- Adoption provision 6: Comparatives for metrics NZ CS 3
- Adoption provision 7: Analysis of trends NZ CS 3 (for metrics other than GHG emissions).

BNZISL Director  Date: 18 July 2024

BNZISL Director  Date: 18 July 2024

Governance

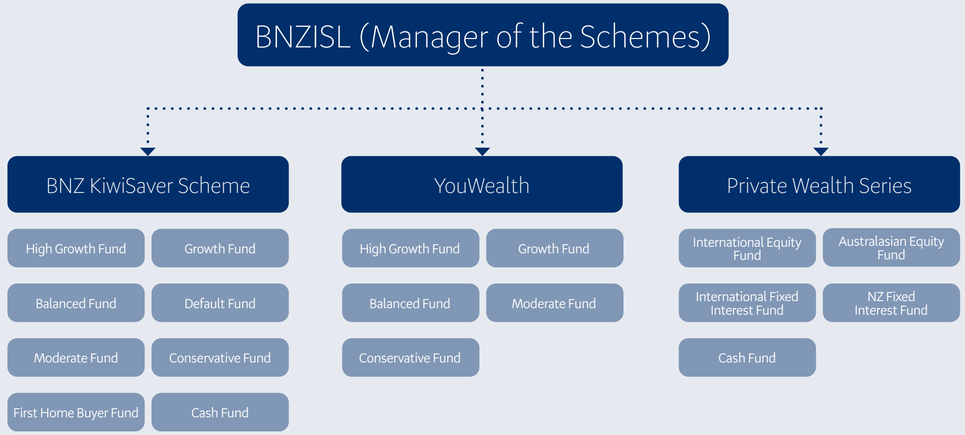
Governance

As noted in the Introduction section above, BNZISL ceased to be owned by BNZ from 1 May 2024. The information in this section relates to the year ended 31 March 2024 and was correct as at this date. We expect some elements of the governance structure and processes to evolve as FirstCape establishes its approach to climate-risk governance.

Governing body

BNZISL is the manager of the Scheme. The BNZISL Board is the governing body with ultimate responsibility for oversight of climate-related risks and opportunities for the Scheme. The Funds within each of the Schemes managed by BNZISL are illustrated in Figure G.1 below:

Figure G.1 – Managed Investment Schemes and underlying Funds managed by BNZISL.



BNZISL is reliant on its parent company (BNZ) to resource (including employees) BNZISL for the day-to-day management of the Scheme. This includes overseeing the implementation of climate strategy for the Scheme (see the BNZISL Management section below for more information). The BNZISL Board oversees and evaluates BNZISL's business strategy, policies and business performance and has overall accountability for ensuring risk and opportunities in relation to climate are identified, managed, and disclosed in relation to each of the registered Managed Investment Schemes that BNZISL manages.

The BNZISL Board is accountable for approving the climate-related disclosures of the Scheme. There are currently no key performance indicators included in the performance measurement of the non-executive BNZISL Board members.

The BNZISL Board provides oversight and direction in relation to climate in a number of ways which are outlined in the box below.

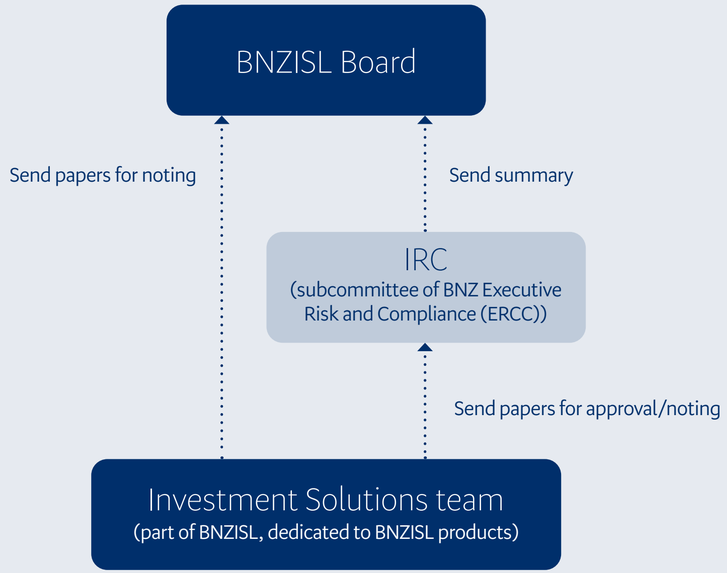
The Board held a strategy day with BNZISL Management in February 2022, and agreed a goal to 'Accelerate our climate strategy and commitments'. This was supported by incorporation of a BNZISL Management performance goal for climate-related strategic delivery and the following deliverables over the period November 2022 to March 2024: creating climate targets and actions (which forms part of the RI Policy), completing PRI reporting, and completing a CRD reporting dry run before mandatory CRD reporting in 2024.

The BNZISL Board meets six times annually and receives a sustainability and climate update four times a year. In September 2023, the BNZISL Climate Action Plan and interim targets were presented (and later approved in April 2024). The targets are presented in more detail in the Strategy section. In November a draft CRD report (for the BNZ KiwiSaver Scheme) for the year ended 31 March 2023 was discussed. All BNZISL Board members also participated in a scenario analysis workshop, interrogating the scenarios developed for the Scheme to test the resilience of the Scheme's investments (this is expanded on in the Strategy section). The BNZISL Board maintains an annual workplan, which includes a quarterly report to be provided on Responsible Investment, which covered, during the period, investment manager engagement, the development of CRD, BNZISL's net zero ambition and discussion of climate-related risks and opportunities as they arose. From July 2024, it is intended that the Responsible Investment update will include progress towards meeting the Climate Action Plan and that the Responsible Investment update is to be strongly aligned with the Responsible Investment updates from the IRC (see below in Management section for more details). The update is intended to also cover the monitoring of signals which were defined in the scenario analysis workshops.

The BNZISL Board ensures climate risks and opportunities are integrated into the investment strategy of the Scheme through the Statement of Investment Policy and Objectives (SIPO), which refers to the RI Policy.

The BNZISL Board has delegated certain responsibilities for Managed Investment Schemes (including the Scheme), to the Investment Review Committee (IRC) which is a management committee. This includes pro-actively supporting the Board of BNZISL with regard to the Scheme, including the oversight of investment performance, investment risk and any other investment-related issues. It also includes consideration and oversight of responsible investment.

Figure G.2 – Climate-related risks and opportunities escalation pathways for action.



Information related to the BNZISL investment portfolio is provided to the BNZISL Board by the IRC, through a summary covering meeting minutes and escalation of matters at least quarterly, and as needed. The IRC meets at least once a quarter (the role of the IRC is explained in more detail below). The IRC agenda is developed by BNZISL Management and from February 2024 the IRC has received regular climate reporting updates.

Regular reporting on progress toward our interim targets is intended to be provided from May 2024 to the IRC along with recommended changes (if required) to ensure we continue to make progress toward our interim targets and net zero ambition. The BNZISL Board, who has overall responsibility for business strategy, policies, and business performance, receives annual updates on our progress toward our interim targets.

A climate risk-assessment framework (discussed in more detail in the Risk Management section below) has been established to assess and monitor climate-related risks. Once the climate risks and opportunities are identified and assessed, the IRC will decide upon an appropriate risk response (this is described in more detail in the Risk Management section below). As noted above, if a matter needs to be escalated, the BNZISL Board will be engaged to decide on an appropriate course of action for addressing the risk.

The BNZ Chief Risk Officer (CRO) has oversight of BNZISL risks via this process as BNZISL does not have a CRO of its own.

The flow of information related to climate-related risks and opportunities to the BNZISL Board is illustrated in Figure G.2 (see left).

The BNZISL Board maintains a self-assessed skills matrix, covering climate risk management, which is updated annually. The skills matrix includes an assessment of the skills and experience that directors have in relation to managing climate-related risks and opportunities across BNZISL's portfolio. All directors have noted a sound understanding of climate-related risk management through this self-evaluation. All BNZISL Board members have completed in-depth training modules on climate change topics, including climate-related obligations and accountability, climate science and policy, climate-related metrics, and climate risk management and strategy. The training materials and knowledge sessions were also made available to BNZISL Management. The BNZISL Board has also received discrete externally facilitated training on the risks of net zero investing and climate change scenarios, which was complemented by a session which focused on active stewardship. In 2024, three director education sessions, which include climate-related topics, are included in the BNZISL Board annual workplan. Climate-related topics will cover current trends and director obligations and will be delivered by external subject matter experts.

The Management Due Diligence Committee (MDDC) completes due diligence on the SIPO at least once a year, which details the Strategic Asset Allocations (SAAs) for each Fund within the Scheme and its benchmarks. The asset allocation review is conducted by the Asset Consultant (the role of the Asset Consultant is described in more detail in the BNZISL Management section below), who recommends changes to the asset allocations as needed to the Investment Solutions team, which in turn recommend changes to the IRC for approval.

In addition, in 2023 the Asset Consultant incorporated climate change risk into its Capital Markets Assumptions (CMA) analysis, which it provides to the Investment Solutions team. The CMA analysis looks at impacts to investment performance at an asset class level over the medium term (over seven years) and long term (over 20 years). The CMA analysis is an input into decision making about the investment strategy and asset allocation for the Funds within the Scheme. Climate impacts on the CMA factors (such as economic growth, inflation, risk premiums, and volatility) were determined and integrated into expectations on future returns. These were determined through the use of three scenarios that incorporated data from the Network for Greening the Financial System (NGFS), inputs from the International Energy Agency modelling, and Bloomberg Climate risk scores. Any changes to the SAA are then reflected in the Scheme's SIPO. While there has not yet been a change made to the asset allocation of the Funds resulting from climate change considerations, this process has now been explicitly incorporated into the risk and return assumptions within the SAA review.

The RI Policy is referred to in the SIPO and is reviewed at least annually. It is subject to a due diligence process involving BNZISL Management. The RI Policy highlights key themes (such as approach to active ownership), it contains exclusions in relation to certain sectors, and highlights the intent to have both active stewardship and engagement across the industry. The RI Policy and any updates to it are approved by the BNZISL Board.

The BNZISL Board has approved a Climate Action Plan which outlines our climate targets and actions and which is included in the RI Policy. The Climate Action Plan outlines four targets (net zero alignment, stewardship, climate solutions and emissions reduction). Further details of the Climate Action Plan commitments can be found in the Strategy section of this Report.

The targets were proposed by the Asset Consultant for the Scheme along with actions to achieve these targets, the proposal was analysed and reviewed by the Investment Solutions team, who then recommended the Climate Action Plan, containing the targets, to the BNZISL Board. Implementation of the targets will be supported by the external investment managers, who are investing according to their mandate and specific instructions provided by BNZISL.

BNZISL Management

The main roles, teams, and committees responsible for developing and implementing BNZISL's climate strategy with respect to the Scheme is as follows:

- **Executive, Customer Products and Services (CP&S):** Responsible for product development, which includes investment products. The Executive, CP&S is also an executive director on the BNZISL Board.
- **General Manager – Wealth:** Head of the Wealth business and currently Chair of the IRC. The General Manager Wealth is also the CEO of BNZISL.
- **IRC:** Responsible for reviewing and approving recommendations made by the Investment Solutions team related to investment strategies and authorised investments of the Scheme. It also oversees investment performance, risk (which includes climate risks and opportunities), and other investment-related issues.

  The IRC ensures that the strategies and authorised investments are appropriate for the objectives and time frames of the relevant investment options, and that investment policies and guidelines are appropriate for efficient implementation. The IRC currently comprises the General Manager – Wealth (Chair), the Head of Investment Solutions, the Senior Markets Strategist and at least one independent BNZISL Board member who attends the IRC meetings, and contributes to the discussions, engaging with BNZISL Management as needed. The IRC met five times during the reporting year.

  Other attendees can include members of the Investment Solutions team, the Head of Product (Wealth), the Head of Investment Operations, the Senior Manager Responsible Investment, the General Manager of BNZ Private Banking, a legal representative, and representatives from the Asset Consultant.
- **MDDC:** Responsible for reviewing and approving the SIPO and Scheme's risk appetite, but not the CRD. The MDDC convenes meetings monthly (the frequency can be amended, as needed, by the Chair), and currently comprises the Head of Product, a Product Compliance Manager, Senior Product and Proposition Manager, the Head of Investment Solutions, the Head of Wealth Investment Operations, the Operations Risk Partner, a legal representative, and as required, the Head of Taxation.

Relevant BNZISL Management teams involved in the developing and implementing of BNZISL's climate strategy with respect to the Scheme are as follows:

- **Investment Solutions team**: Engages with external investment managers regularly both through reporting and quarterly meetings, which includes considerations of ESG integration in the investment decision-making process. The Investment Solutions team is responsible for the investment strategy of the Scheme, including the asset allocation, external investment manager selection, hedging strategy, and the Scheme's approach to responsible investment. To fulfil those responsibilities, the Investment Solutions team works very closely with our Asset Consultant.

  The team is comprised of the Head of Investment Solutions, an Investment Analyst, two Senior Investment Managers, and the Senior Manager Responsible Investment. The team contributes to the development of industry best practices, through membership of the Financial Services Council's ('FSC's') ESG committee; and has been involved in the Centre for Sustainable Finance Technical Working Group for investing in private assets.

  The Senior Manager Responsible Investment's role entails managing and owning BNZISL's approach to responsible investment. This includes contributing to BNZISL's CRDs and any reporting under the PRI. The development and implementation of strategy and policies, and the engagement programme with external investment managers, is a key aspect of the role. In addition, making recommendations to the IRC about climate-related risks and opportunities, managing the risk framework, and signal monitoring (pertaining to climate-related risks and opportunities) are other important components of the role.
- **Climate Working Group (CWG):** this cross-functional team meets weekly and comprises members from most of BNZISL's core functions (i.e. communications, governance, investment solutions, operations, and product) and BNZ Legal and Management Assurance (1st Line Risk) members. The CWG is responsible for the preparation of the CRDs. Significant milestones achieved by the CWG (such as progress on the scenario analysis process) are reported to the BNZISL Board by the Senior Manager Responsible Investment.

Relevant external parties involved in the developing and implementing of BNZISL's climate strategy with respect to the Scheme are as follows:

- **Asset Consultant**: BNZISL employs the services of an independent asset consultant to provide unbiased expert advice. This includes recommendations for asset class reviews, SAAs, external investment manager appointments and support in the development of BNZISL's climate principles. Recommendations from the Asset Consultant are not binding on BNZISL.

- **External investment managers**: BNZISL has delegated certain investment and operational functions in respect of the Scheme to various external investment managers. Each external investment manager is appointed under an Investment Management Agreement (IMA) and is authorised to invest the assets of the Scheme for which they are the appointed manager only in accordance with the terms of the IMA, having regard to the investment objectives of each Fund, including the specified investment strategy (active or passive).

  The investment mandate within each IMA requires the external investment manager to implement the specific exclusions identified in BNZISL's RI Policy, to only invest in 'authorised investments' as defined in the relevant IMA, and to track performance against a specified benchmark (which will be specific to each IMA).

  In addition, each IMA in respect of an active external investment manager specifies that ESG factors must be considered when making investment decisions.
- **Supervisor**: in relation to climate risk management, the Scheme's Supervisor (The New Zealand Guardian Trust Company Limited) monitors BNZISL's compliance with its RI Policy.

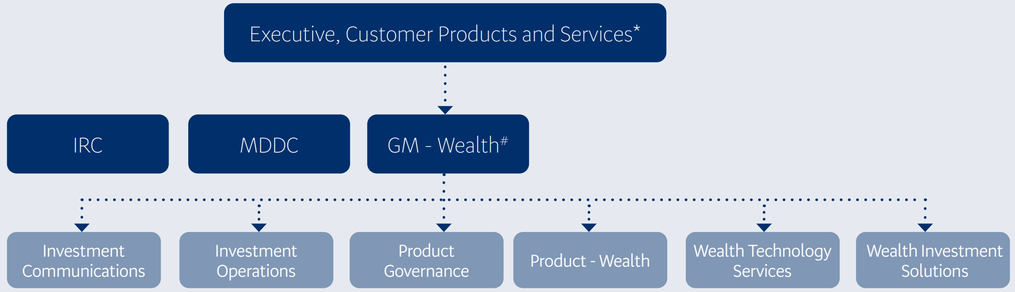
When we appoint a new external investment manager, we provide a full brief of our requirements to our Asset Consultant, who then conducts a review of the market. The Asset Consultant assesses candidates against key criteria including investment philosophy, investment process, portfolio construction, risk management and ESG considerations, then recommends one or more managers that meet our requirements. There is a strong focus when appointing external investment managers on ensuring those investment managers can implement our RI Policy requirements, including having a strong stewardship programme and a process for managing BNZISL's exclusions.

The Investment Solutions team then reviews the Asset Consultant's recommendation for the appointment of an external investment manager. The recommendation is then submitted to the IRC, which is responsible for approving the appointment of an external investment manager or any asset allocation changes. This is done prior to the external investment manager being onboarded, or the asset allocation change being implemented.

The Supervisor of the Scheme is kept informed when an external investment manager or an asset allocation changes.

Figure G.3 illustrates BNZISL's organisational structure.

Figure G.3 – BNZISL organisational structure



(*) also Executive Director on BNZISL Board, (#) also Chair of Investment Review Committee

Climate risks in relation to the investments of the Funds will be identified and monitored through a risk assessment tool. This tool was developed in 2023 and is discussed in more detail in the Risk Management section below.

Strategy

Strategy

Our investment strategy and approach

We have a 'manager of managers' business model which means that we invest the Scheme's investments with external investment managers, with regular monitoring of performance (see our Governance and Risk Management sections for more information) by BNZISL Management and the IRC. We focus solely on retail investors through our banker and digital channels. In addition to our external investment managers, our key partners include our Supervisor, Asset Consultant, Custodian, and Registry Provider.

Our vision is to deliver high quality, value-for-money wealth products for our customers. We provide access to a diverse range of global investment markets including different asset classes, sectors (e.g. renewable energy and technology), and regions. We want to help customers grow their investments, while reducing the potential harm these investments have on the environment and our communities. We're committed to investing responsibly, recognising that this is in the best long-term interests of our customers.

The Scheme's investment approach is illustrated in Figure S.1 below and shows the composition of each Fund, i.e. the asset classes we invest in and the external investment managers we've selected for each asset class. Each Fund invests in a specific asset class and we use specialist investment managers to manage the Funds in line with the investment strategy (including alignment to our RI Policy), and objectives. Using passive and actively managed strategies, each of the Funds in the Scheme provides the asset class building blocks for our customers to construct an investment portfolio to suit their needs. This allows us to provide a range of cost-effective fund options that give access to investments that are diversified across a range of industry sectors and regions.

Figure S.1 – Scheme business model showing investment strategy, investment manager, asset class and allocation* ratio per Fund

BNZISL revenue comes from the annual fee relevant to the respective Fund shown below. Costs to PWS members include the annual fee and any relevant buy/sell spreads**

Private Wealth Series International Equity Fund		
Antipodes	International equities	100%
Cworldwide		
Intermede		
Annual fee: 0.72%		

Private Wealth Series Australasian Equity Fund		
Mint Asset Management Limited	Australasian equities	100%
Castle Point Funds Management Limited		
First Sentier Realindex Pty Ltd		
Annual fee: 0.50%		

Private Wealth Series International Fixed Interest Fund		
State Street Global Advisors	International fixed interest	100%
Columbia Threadneedle Investments		
Annual fee: 0.40%		

Private Wealth Series NZ Fixed Interest Fund		
Harbour Asset Management Limited	NZ fixed interest	100%
Nikko Asset Management New Zealand Limited		
Annual fee: 0.39%		

Private Wealth Series Cash Fund		
Nikko Asset Management New Zealand Limited	NZ Cash	100%
Annual fee: 0.27%		

● Actively managed ○ Passively managed ◐ Blend of passive and active

* Target investment mixes are shown above with allowable investment ranges disclosed in the SIPO.

** Buy and sell spreads are an adjustment to the unit price of a Fund, which reflects our estimate of the costs that a Fund incurs when it buys and sells assets. Buy and sell spreads are applied whenever you make a change which requires you to buy or sell units in our Funds, such as making contributions, switching between Funds, making a withdrawal, or closing your account.

Our business model and investment approach allow us to manage climate risk and opportunities across our entire investment portfolio, including the Scheme, and is strongly linked to our vision to deliver sustainable long-term returns for our customers.

Climate change presents challenges through risks that may impact the value of the investments in the Scheme and also presents opportunities to invest in sectors or investee companies that are allocating capital to either new technology or infrastructure that generates growth through new revenue streams. BNZISL developed a fully funded project plan to enhance our approach to managing climate impacts and allocated capital to the following activities.

- A new dedicated Responsible Investment Senior Manager role within the Investment Solutions team, to develop and implement our Responsible Investment Strategy, Policy and Practices including meeting our net zero ambition.
- Engaging additional resources to help develop a CRD governance framework and prepare the CRD.
- Fixed engagements with climate and scenario development specialists to build internal capability to develop and manage climate scenarios, and also assess and manage climate-related risks and opportunities for the Scheme.
- Partnering with our Asset Consultant to develop a transition plan that takes into account the current risks and opportunities and assists us to meet our net zero ambition.

Current climate-related risks

Understanding the extent of climate-related risk is a complex challenge, especially for investors who are often exposed to the entire economy through investments across multiple sectors and geographies. This section describes our current assessment of how climate change has impacted the Scheme's investments during the 2024 financial year (FY24). Using climate scenarios, we've also assessed the resilience of the Scheme's investments under different climate futures and timeframes. Climate-related risks and opportunities are considered through the drivers of both physical and transition risks and consider how the Scheme is exposed to these risks. We also consider the opportunities that are developing, both globally and domestically, through the transition to a low emission, climate-resilient future.

Climate risk consists of two key elements:

1. Physical risk

Economic activities are impacted by the physical aspects of climate change due to their significant dependence on the natural environment. This type of risk manifests through either an acute event (such as flooding or wildfires) and chronic risk or longer-term shifts in climate such as an increase in temperature. Chronic risks arise from incremental changes and usually take longer to materialise, with impacts likely to be much more pervasive.

2. Transition risk

Transition risk materialises through a company's and/or country's readiness to transition to a low-carbon economy. These include policy, legal, technological and market changes in response to mitigating and adapting to climate change. Carbon-intensive companies are more likely to be impacted by the transition to a low-carbon economy, however, the demand for raw materials and new climate regulations will mean almost every sector and geography will be impacted.

Investee companies' preparation for both physical and transition risks will be influenced in part by the physical location of their assets, together with the transition policies impacting their sector. Sectors with higher levels of GHG emissions, such as energy, are at high risk of suffering climate-related losses, as policies aimed at curbing emissions and facilitating the transition to a low-carbon economy create more significant risks to such carbon-intensive industries.

In July 2023, using our risk assessment framework (see our Risk Management section below for details on this framework), we completed a high-level climate risk assessment of each investee company and sovereign entity that the Scheme invests in. Using the five-point impact scale rating approach (see Appendix 1) we have identified which sectors, geographies, and companies are most vulnerable to physical and/or transition risks. A risk rating is assigned using transition and physical risk scores for each investee company and sovereign entity.

Our risk assessment identified the largest amounts invested in investee companies (through equity and corporate bonds) with higher-risk ratings were in the energy, materials and utilities sectors.

It also highlighted that the regions with the largest amounts invested in investee companies (through equity and corporate bonds) and sovereign entities (through sovereign bonds) were USA and Canada, New Zealand and the European Union (EU).

The overall climate-related risk rating is determined from the higher of the transition or physical risk rating for that investee company, e.g. the climate-related risk rating of an investee company with a 'High' physical risk rating and a 'Moderate' transition risk rating will have an overall rating of 'High'. These scores are then aggregated to show the Scheme's or Fund's overall exposure to each of the five ratings.

The climate risk heatmap for the Scheme is shown in Figure S.2 below, and the breakdown by Fund is shown in Figures A.2 – A.6 (in Appendix 4). The Scheme's investment across all sectors is provided in the Metrics and Targets section below.

Table S.1 – Identified sectors with higher climate risks

The 'Sector value' shows how much the Scheme has invested in the sector as an indicator of exposure (excluding cash and derivative asset classes). The Sector value is also provided in parentheses as a percentage of the total assets of the Scheme. The Weighted Average Carbon Intensity (WACI) is an indicator of transition risk for a particular sector, as the higher the WACI the more exposed a particular sector is to climate risk drivers, such as regulation and consumer demand.

Sector and description	Risk rating	Sector value as at 31 March 2024 (% of total Scheme assets)	WACI for sector investment (tCO_2e/NZD mn revenue)
 **Energy** – this sector includes oil and gas exploration, extraction, refining, transport, and storage, as well as coal. Some of the sub-industries are covered by the exclusions in the RI Policy. The risks presented below are relevant for the investments in the permitted sub-industries.	Energy is associated with a **high**-risk rating.	NZD 6.6mn (0.40%)	356
 **Materials** – this sector includes chemical product companies (including petrochemicals), construction materials (including cement), containers, metals, and mining (including steel) and paper products companies.	Petrochemicals, cement, and steel are associated with a **high**-risk rating. The rest of the materials sector is associated with a **moderately high**-risk rating.	NZD 66mn (4%)	322
 **Utilities** – this sector includes power utilities (covering gas plants, renewable energy plants, and other power generation plants) and water utilities.	Gas plants and power generation plants are associated with a **moderately-high to high**-risk rating, while water utilities and renewable electricity are associated with a **low**-risk rating.	NZD 120mn (7%)	267

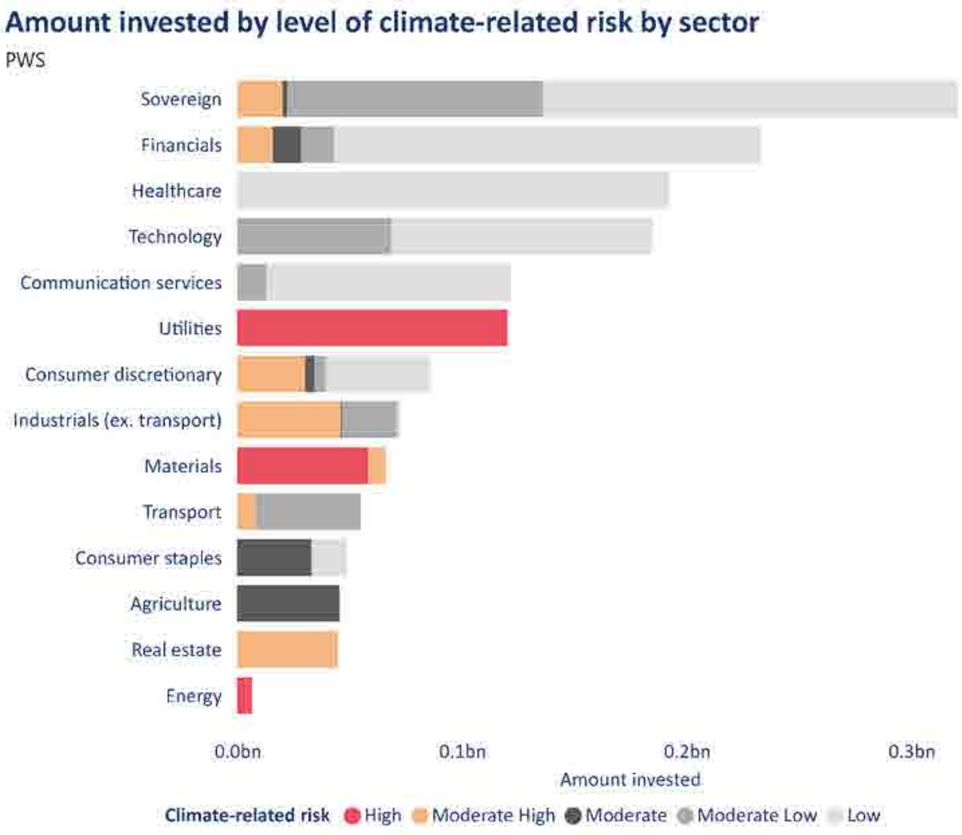
Table S.2 – Identified regions with higher climate risks

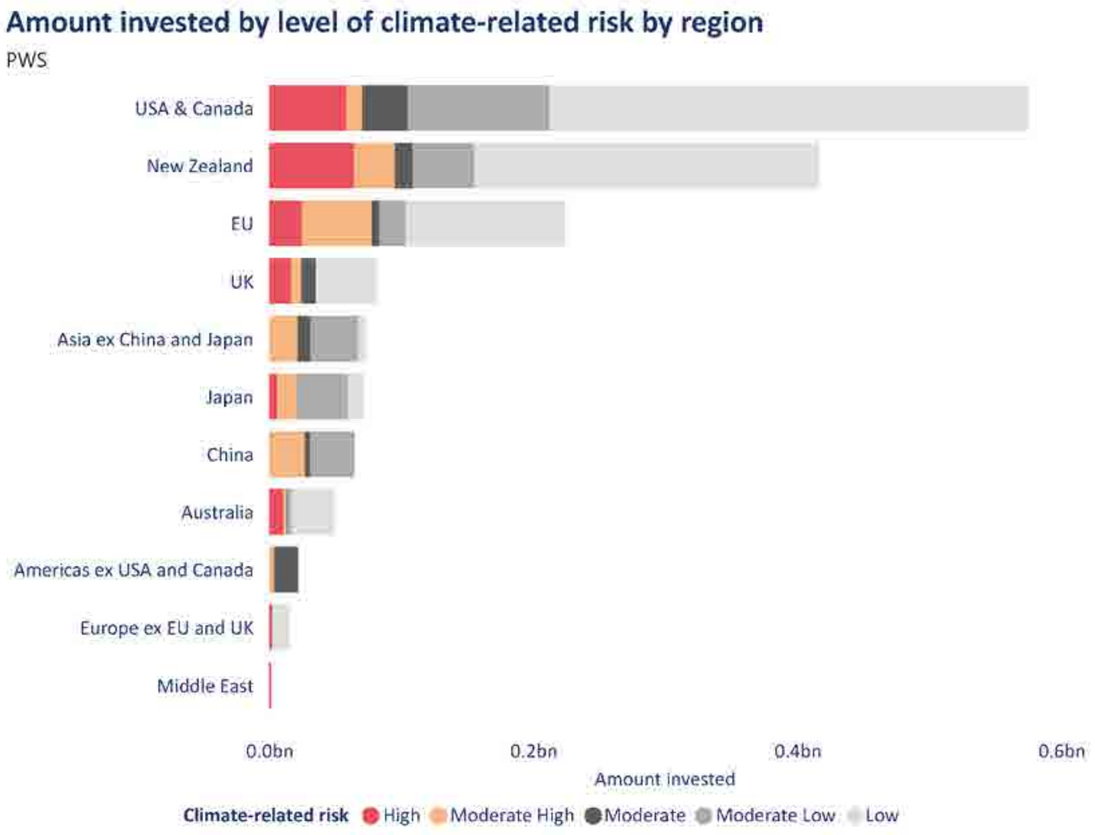
The table below shows the countries where many investee companies have a high-risk rating and where we have the highest overall exposure as a percentage of total Scheme assets (also see Figure S2 below).

Country/region	Risk rating	Country-related investment (excluding cash and derivatives) as at 31 March 2024 (% of total Scheme assets)
New Zealand – 2023 was a year which saw several catastrophic events, such as the flash floods in January and Cyclone Gabrielle in February (2023 Year in Review | NIWA)	The ND-GAIN Country Index, which estimates the readiness towards climate change and vulnerability to weather events, assessed New Zealand as being in the **lower physical risk** quintile compared to other countries. The Bloomberg Government Climate Risk Score (BGCS), which estimates the transition risk of countries, based on carbon transition, power transition and climate policies adoption, placed New Zealand in the **moderate-low transition risk** quintile compared to other countries.	NZD 417mn (24%)
USA and Canada – North America has suffered many weather events with a historic number of billion dollar disasters in 2023 as per NOAA (U.S. struck with historic number of billion-dollar disasters in 2023 | National Oceanic and Atmospheric Administration (noaa.gov))	The ND-GAIN Country Index, which estimates the readiness towards climate change and vulnerability to weather events, assessed this region as being in the **lower physical risk** quintile compared to other countries. The BGCS, which estimates the transition risk of countries, based on carbon transition, power transition and climate policies adoption, placed North America in the **moderate transition risk** quintile compared to other countries.	NZD 575mn (33%)
EU – in 2023, Europe saw droughts in spring, massive wildfires in summer, and warmer ocean surface temperature all year round. The State of the Global Climate in 2023: A Recap | Earth.Org	The ND-GAIN Country Index, which estimates the readiness towards climate change and vulnerability to weather events, assessed this region as being in the **low to moderate-low physical risk** quintile compared to other countries. The BGCS, which estimates the transition risk of countries, based on carbon transition, power transition and climate policies adoption, placed the EU in the **moderate-low to moderate-high transition risk** quintile compared to other countries.	NZD 224mn (13%)

Figure S.2 below is a climate risk heat map of the Scheme, with its methodology explained in Appendix 1; fund-level climate risk heat maps can be found in Appendix 4. The climate risk heat map describes the distribution of the invested assets by overall climate risk rating classification for each sector and region.

Figure S.2 – Climate risk heat map of the Scheme



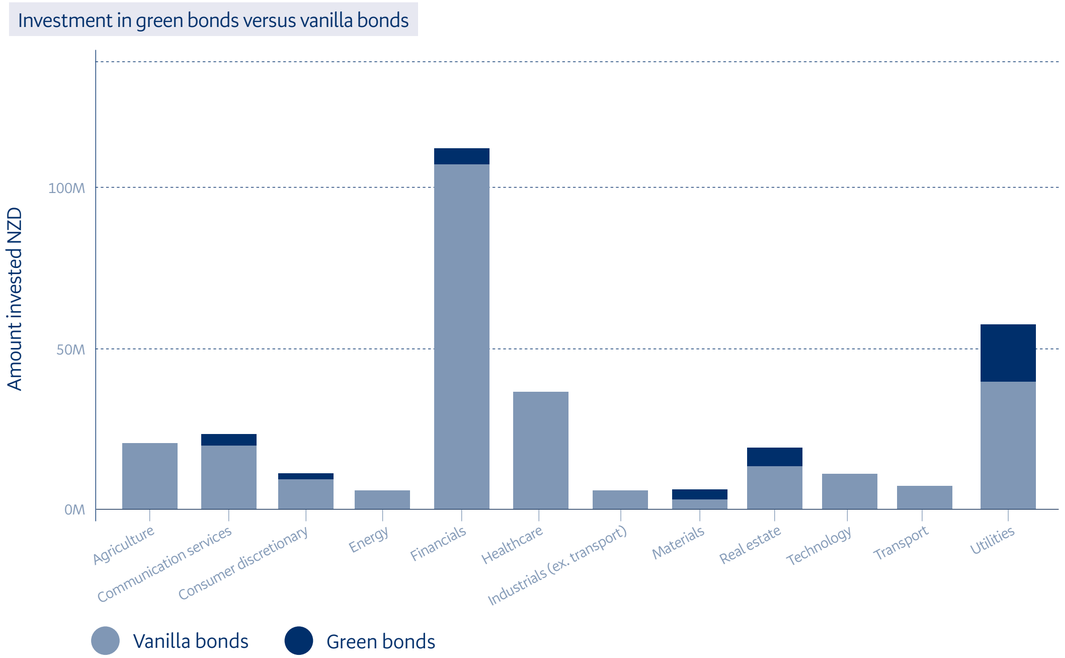


Climate-related opportunities

Organisations focused on climate mitigation and adaption (e.g. electric battery components) or companies that are well placed to navigate the complexities of transitioning away from fossil fuel reliance (e.g. electricity providers investing in renewable energy) may provide investment opportunities. Assessing these opportunities within the Scheme is done at an investee company level and includes:

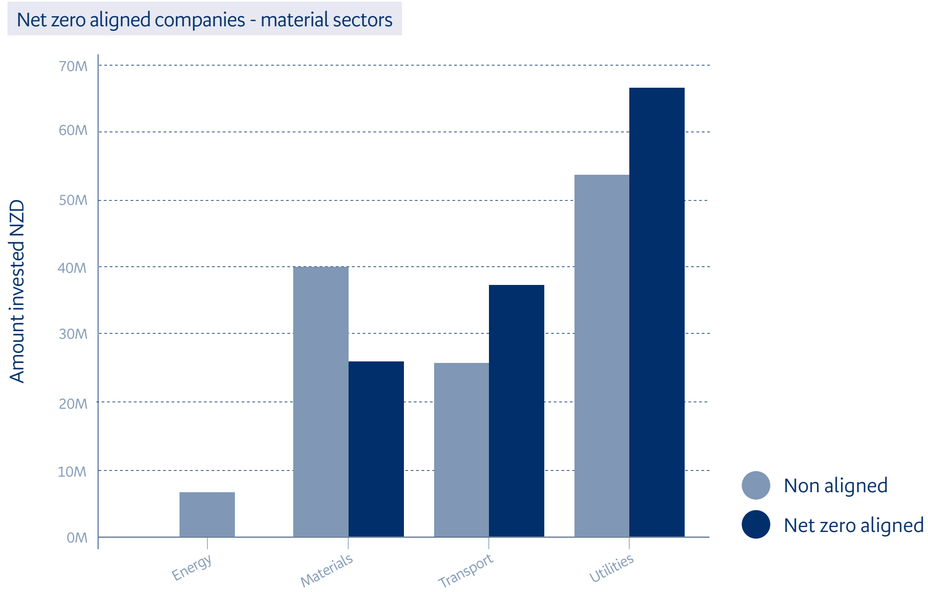
1. **Green bonds**: These are bond instruments where the proceeds will be used exclusively to finance new and existing eligible projects with environmental benefits such as wind or solar farms, electric vehicles, and biodiversity conservation (e.g. native forest planting). Such bonds are identified with a specific attribute by Bloomberg. Our Scheme investment in green bonds was NZD 34 mn, which is 11% of the total amount invested by the Scheme in corporate bonds.[2]

Figure S.3 – Current green corporate bonds held by the Scheme per sector



2. **Net zero alignment:** We define "net zero aligned" investee companies as those that are assessed as having aligned to a 1.5°C pathway or committed to transitioning in line with 1.5°C aligned pathways. The data is based on reporting from Bloomberg Portfolio & Risk analytics (PORT) reflecting whether companies have a science-based or Science Based Target initiative (SBTi) 'committed' or 'validated' net zero status.

Figure S.4 – Alignment to 1.5°C pathway for investee companies of the Scheme



Identifying the material sectors and the opportunities to invest in the transition of the economy, was supported by the development of our Climate Action Plan, which is found within our RI Policy and is applicable to the Scheme. Investment in companies in the material sectors that are aligned or aligning to net zero pathways (shown as 'Net zero aligned' in Figure S.4 above) was NZD 130 mn, which is 50.7% of the total amount that has been invested in the material sectors (and represents 7.9% of the total funds under management (FUM)). The climate solutions and net zero alignment interim targets expressed in our Climate Action Plan are focused on investing in opportunities as described above. See the Transition plan aspects of BNZISL's strategy section below and the Metrics and Targets section for more details on our Climate Action Plan.

[2] Green bonds enable capital-raising and investment for new and existing projects with environmental benefits, the use of the proceeds is restricted to fund specific green projects, but backed by the company's entire balance sheet. In comparison, a vanilla bond is the most basic type of bond with no additional features or limitations.

Current impacts

Geographies and sectors with a 'High' exposure to climate-related risks are identified as being potentially more sensitive to climate-related physical and transition risk. Companies and sectors that are investing in climate solutions or transitioning their business to one that is less exposed to the physical or transitional impacts of climate change can help mitigate exposure to these risks and can also be an opportunity for investment growth.

Focusing on the 'High' rated geographies and sectors identified through our risk assessment process (see Current climate related risks section above) and those sectors and companies identified through our opportunity metrics, we considered how climate-related events have impacted our investment portfolio (including the Scheme) over the last 12 months. Table S.3 below describes the events and impacts to these sectors and geographies within the Scheme.

We are developing our processes to assess current financial impacts based on the events outlined in Table S.3. We will use the NZ CS 2, Adoption provision 1 for FY24 to release us from disclosing current financial impacts.

Table S.3 – Current physical and transition impacts identified for the Scheme

Event	Event type	Geography	Impact
Climate litigation	Transition – legal	Global	We are seeing many climate litigation cases around the world particularly in the finance and oil and gas sectors as regulators and climate groups bring legal action for misleading statements in relation to GHG emissions, challenges to sustainability claims made by the sector and/or lack of disclosure of how they are managing climate risk. These legal challenges do not appear to have impacted on current performance, but we continue to monitor events, and some of our external investment managers are engaging with their investee companies to ensure that they are actively managing this risk. Our exclusions mean we have limited investment in oil and gas companies (see our RI Policy for details) in the Scheme.
Increasing investment in renewable energy and electrification	Transition – technology and policy	Global	Increased demand in 2023 for electric vehicles and grid storage has seen an increase in demand for raw materials such as cobalt and lithium[3]. China dominates the rare earths export market, however, there are opportunities for car makers, battery makers and mining companies globally. The introduction of the Inflation Reduction Act in the United States of America (USA) has seen USD 240 bn of investments in clean energy announced by the private sector and more than 170,000 jobs created[4]. Many companies are moving operations to the USA to take advantage of this opportunity, which in turn is providing an opportunity to invest in companies focused on climate solutions. The Scheme is invested in renewable energy domestically and has exposure to renewable energy, electric car companies, semiconductors (component of electronic devices used in transportation, clean energy and communications) through the international fixed interest and international equity asset classes.
Climate regulation and reporting	Transition – policy	New Zealand and EU	Introduction of climate disclosure legislation in 2023 for Europe (first reporting year 2025) and New Zealand (first reporting year 2024) is expected to drive transparency on climate risks and opportunities at a company level. Increased transparency supports better investment decisions through understanding a company's exposure to climate impacts. There are also cost impacts as companies invest in new technologies, including climate-related data and expertise.
Insurance impacts	Physical – acute	Global	Extreme weather events such as wildfires across Europe, USA and Canada and flooding in New Zealand in 2023 had devastating impacts. Insurance losses from natural catastrophes have topped USD 100bn per annum over the last four years. This has seen insurance premiums[5] increase significantly and insurance companies withdraw coverage for new policies from some areas, there is an expectation from reinsurers that the cost of insurance will continue to rise. Higher premiums are driving increases in the number of people and businesses not insured, which may, in turn, impact access to finance. This is also driving pressure for governments that have obligations to further absorb climate-related risks and invest in adaptation. Higher insurance premiums are also an inflationary pressure for global economies.
Global supply chain pressure	Physical – acute	Global	Drought is impacting the ability for ships to pass through the Panama Canal, increasing shipping costs[6]. This is increasing costs for exporters, particularly in the USA, and eventually this will be passed onto consumers or may impact exporters' market share. Climate-related supply chain impacts are not limited to one sector or region – supply chain disruptions and associated cost increases can lead to decreased demand for goods, impacting company profitability and increased inflation.

[3] The rare earths race entails difficult choices (ft.com)
[4] FACT SHEET: One Year In, President Biden's Inflation Reduction Act
[5] The uninsurable world: what climate change is costing homeowners (ft.com)
[6] Panama Canal has gotten so dry and backed up after brutal drought that shippers are paying up to $4m to jump the queue | Fortune

Scenario development overview

We use climate-related scenario analysis to assist in the identification of risks and opportunities impacting our investee companies and to test the resilience of our strategy. Scenario analysis involves the preparation of multiple plausible and challenging future scenarios including potential future physical, regulatory and market developments. BNZISL has developed three climate-related scenarios to understand how climate change may affect its investment portfolio (including the Scheme and the Funds) and overarching business model. A standalone qualitative approach was used and the FSC sector-level scenarios (Climate Scenario Narratives) developed in 2023 in consultation with the New Zealand investment services and insurance sectors were used as a base. We intend to integrate scenario development into our strategy setting process during 2024 and 2025.

The CWG (see the Governance section above) is responsible for the delivery of the climate-related disclosures for the Scheme. A separate scenario development workstream (see Appendix 2 for more details around the objectives and outputs) was set up to build our climate scenario capability which covered:

1. Preparation for the climate scenario workshops, including documenting the project charter, developing a reading list to ensure a common understanding on climate-related topics and defining the boundaries of scenario analysis.
2. Reviewing the work in the investment industry level Climate Scenario Narratives[7], and the appropriateness of these scenarios for BNZISL's investment portfolio (including the Scheme). The Climate Scenario Narratives were used as a base and adapted for developing relevant scenarios for BNZISL's investment portfolio.
3. Climate scenario workshops which identified the driving forces, conceptual model, temperature outcomes, and emission pathways were later used to assess the resilience of BNZISL's investment portfolio against the scenarios developed from those components. Representatives at the workshop included BNZISL Board members, BNZISL Management, external climate, and scenario experts and BNZISL's Asset Consultant. The three scenarios were considered (as outlined below) over three different time horizons:
    - Short term: 1 to 5 years
    - Medium term: 6 to 20 years
    - Long term: over 20 years.

We have not explicitly considered carbon sequestration from afforestation and nature-based solutions, or other carbon negative technologies in our scenario development and analysis.

The three scenarios

The three scenarios we analysed are summarised below:

The Kiwi scenario: Net zero by 2050

- An emissions reduction pathway is established to limit warming to no more than 1.5 °C.
- Transition to a low-emissions economy is rapid.

Under this scenario, the world is working through a period of rapid transformation into a low-emissions economy limiting the global temperature increase to 1.5°C. This is overshadowed by transition risks, causing uncertainty over financial outcomes at both a sector and individual company level. In 2030, climate disclosures were mandatory in 100 countries and government policy globally was focused on incentivising technology advancements that support climate solutions, removing the remaining subsidies for fossil fuels and putting trade mechanisms in place to encourage GHG emissions reductions globally.

The world is in an era of revolutionary change across industries and geopolitical landscapes. Demand for lithium and other rare earth minerals is increasing quickly, driving pivots in wealth and power across economies. Innovation and change are prevalent across industries, and consumer demand is driving capital to industries focused on environmental and social outcomes.

Despite this change, every 0.1°C increase in warming results in a new level of physical impacts. Water security, rising sea levels and access to finance and insurance for these impacted areas has become a challenge. Progressive cities have invested in adaptation to meet these challenges, while others are facing severe fiscal pressure and increased borrowing to meet the cost of large infrastructure repair.

Unprecedented damage from weather events has driven consumers to demand immediate change from governments, as well as an expectation from financial institutions to direct capital primarily to businesses focused on delivering environmental and social outcomes, alongside financial returns.

[7] Climate scenario narratives for the financial services sector (fsc.org.nz)

The Tuatara scenario: Too little too late

- Global temperature increase is anticipated to reach 2 °C by 2100.
- Climate transition and physical risks are high.

Under this scenario, a 2°C temperature increase is looming. Ecological and social tipping points have brought abrupt climate shifts that drive tighter global policies, requiring financial professionals to react and adapt to increasingly complex challenges. Some developed nations are early adopters and have strong trade mechanisms in place to incentivise GHG emission reductions, others are slow to implement the policy needed to respond to climate change, and technology innovation is closely guarded.

Global GHG emissions begin a discernible downward trajectory; however, the global carbon reduction was not sufficient to meet net zero ambitions and the 1.5°C budget was exceeded in 2035. The visible impacts from extreme weather events prompted political shifts globally to contain warming to an adaptable level. Worsening air quality and disease have put pressure on the healthcare sector. Climate extremes have increased food insecurity and extreme weather events are causing supply chain disruptions.

In the 2030s, Europe introduced carbon pricing for most of its imports. Demand for a climate-skilled workforce is also high. In the 2040s technology reshaped transport infrastructure, reopening transport routes and energy efficient cooling demand soared to combat the extreme heat. In the agricultural sector, as vital food crops vanish, New Zealand emerges as a centre of agricultural innovation and will pioneer the development of heat-resistant crops designed to weather the storm of a changing climate.

Societal pressure to combat climate change has intensified greenwashing activity, with many organisations exploiting societies' demand for climate solutions. However, organisations with a genuine commitment to sustainability have focused on substantive change and compliance. Throughout the 2030s and 2040s the financial system is impacted by the weight of unaffordable insurance premiums.

The Weta scenario: Hothouse world

- Global temperature has increased by 3°C by 2050.
- Climate transition has failed and physical risks are high.

Under this scenario, the planet is in the grip of a climate crisis. A 3°C temperature increase by 2050 has magnified physical risks and is impacting ecosystems that underpin the economy. Developed nations are abandoning climate policies driven by rising inflation and geopolitical turmoil.

The early 2030s brings a total collapse of low-lying coral reefs and dependent fisheries, traditional crop areas are collapsing, and livestock is struggling. The early 2040s saw the emergence of tipping points, evidence of the collapse of the Atlantic Meridional Overturning Circulation (AMOC) is materialising, meaning abrupt temperature shifts are evident. Sudden cooling grips the UK and Europe. Both regions are also suffering from long periods of drought with agriculture productivity plummeting. Storm activity intensifies across North America with mega-cyclones now a common occurrence. Countries are turning inward to protect diminishing resources from climate refugees.

The escalating demand for cooling solutions leads to an unprecedented shift toward energy requirements and innovative cooling systems to provide habitable living areas resulting in soaring energy prices. The need for adaptation brings innovative solutions for drinking water and inner-city farms with desalination technology filling the gap left by drought-ridden rivers and lakes. In the 2040s, increased physical risks and ongoing extreme events saw the withdrawal of the insurance markets from climate-driven events. Global trade and financial markets struggle, impacting investment incomes, and many households are being pushed into poverty. Governments attempting to intervene through monetary policy are having little impact. This results in equity markets plummeting and credit spreads widening to levels significantly higher than the global financial crisis and currency market moves are extreme.

Scenario characteristics

The scenario narratives defined during our scenario development and analysis process used the FSC scenario characteristics as a base, this is presented in Table S.4 below.

Table S.4 – Characteristics of scenarios considered for the Scheme

	Kiwi scenario – Net zero by 2050	Tuatara scenario – Too little too late	Weta scenario – Hothouse world
Global climate and socio-economic pathways	Intergovernmental Panel on Climate Change (IPCC)[8] SSP1-1.9	IPCC SSP2-4.5	IPCC SSP5-8.5
Global energy and emission pathway parameters	NGFS Net zero 2050 International Energy Agency (IEA) Net zero emissions by 2050	NGFS National Determined Contributions (NDCs) IEA Announced Pledge Scenario (APS)	NGFS Current Policies IEA Stated Policies Scenario (STEPS)
Emissions pathways	Net emissions: • Domestic: 47 $MtCO_2e$[9] by 2030, 3.8 $MtCO_2e$ by 2050 Climate Change Commission (CCC) • Global: NGFS Net Zero by 2050 25.9 $BtCO_2e$ by 2030, -294.82 $MtCO_2e$ by 2050 using Global Change Analysis Model GCAM5.3+ (NGFS)	Net emissions: • Domestic: 57 $MtCO_2e$ by 2030, 22 $MtCO_2e$ by 2050 (CCC) • Global: NGFS National Determined Contributions (NDCs) 35.1 $BtCO_2e$ by 2030, 26.7 $BtCO_2e$ by 2050 using GCAM5.3+ (NGFS)	Net emissions: • Domestic: 62 $MtCO_2e$ by 2030, 35 $MtCO_2e$ by 2050 (CCC) • Global: NGFS current policies (Hothouse) 38.6 $BtCO_2e$ by 2030, 34.3 $BtCO_2e$ by 2050 using GCAM5.3+ (NGFS)
Renewable energy pathways	Percent of renewable electricity of total electricity produced: • Domestic: 94% by 2030, 100% by 2050 (CCC) • Global: 61% by 2030, 88% by 2050 (IEA) Percent of renewable energy of total energy produced: • Domestic: 55% by 2030, 90% by 2050 (CCC) • Global: 30% by 2030, 67% by 2050 (IEA)	Percent of renewable electricity of total electricity produced: • Domestic: 94% by 2030, 98% by 2050 (CCC) • Global: 46% by 2030, 71% by 2050 (IEA) Percent of renewable energy of total energy produced: • Domestic: 50% by 2030, 80% by 2050 (CCC) • Global: 19% by 2030, 37% by 2050 (IEA)	Percent of renewable electricity of total electricity produced: • Domestic: 93% by 2030, 94% by 2050 (CCC) • Global: 42% by 2030, 60% by 2050 (IEA) Percent of renewable energy of total energy produced: • Domestic: 48% by 2030, 61% by 2050 (CCC) • Global: 16% by 2030, 26% by 2050 (IEA)
Economic impacts#	Gross Domestic Product (GDP) (GDP % change due to chronic physical risk acute impacts are excluded from this figure and would further negatively impact GDP). • Global: USD 176 tn (-1.2%) in 2030, USD 289 tn (2.0%) in 2050 (NGFS) • NZ: NZD 330 bn (-0.5%) in 2030, NZD 485 bn (-0.7%) in 2050 (NGFS)	GDP (GDP % change due to chronic physical risk, acute impacts are excluded from this figure and would further negatively impact GDP): • Global: USD 175 tn (-1.6%) in 2030, USD 274 tn (-5.1%) in 2050 (NGFS) • NZ: NZD 329 bn (-0.7%) in 2030, NZD 477 bn (-2.3%) in 2050 (NGFS)	GDP (GDP % change due to chronic physical risk, acute impacts are excluded from this figure and would further negatively impact GDP): • Global: USD 175 tn (-1.6%) in 2030, USD 273 tn (-5.7%) in 2050 (NGFS) • NZ: NZD 329 bn (-0.7%) in 2030, NZD 475 bn (-2.6%) in 2050 (NGFS)

[8] The Intergovernmental Panel on Climate Change (IPCC) is the United Nations (UN) body for assessing the science related to climate change.

[9] $MtCO_2e$ is millions of metric tonnes of CO_2 equivalent – i.e. converting the emissions of GHG other than CO_2 as CO_2 using conversion rate (called Global Warming Potential (GWP)) defined by the IPCC.

NGFS GDP implications were considered as the NGFS models are well recognised globally; however, there are several acute physical impacts that are excluded from NGFS modelling, which could further negatively impact GDP. We assumed these numbers had been understated when we were considering our scenarios.

Table S.4 – Characteristics of scenarios considered for the Scheme (Continued)

	Kiwi scenario – Net zero by 2050	Tuatara scenario – Too little too late	Weta scenario – Hothouse world
Reason for selection	Aligns with BNZISL Net zero climate ambition. Meets XRB's requirement for a 1.5°C aligned scenario. Aligns with scenarios selected by FSC and used by fund managers globally.	Aligns with FSC scenario selection and broader financial sector scenarios. Medium levels of physical and transition risks are plausible and consistent with a disruptive and disorderly scenario.	Aligns with scenarios selected by FSC and used by fund managers globally. Meets XRB's requirement for a 3°C or greater scenario. Extreme scenario used to challenge or stress test strategies.

The risks described below apply to most Funds in the Scheme, except the Cash Fund, which has cash as its main investment. Both the short-term nature of assets within this Fund and nil exposure to our high-risk sectors means there is low exposure to climate risks.

When assessing climate risks in our investment portfolio, we considered the sectors and regions where we are exposed to high physical and transition risks and the drivers identified in developing our scenarios.

While describing risks and opportunities in the table S.5 below, the 'short-term', 'medium-term' and 'long-term' timeframes are defined as follows:

Table S.5 – Time horizons adopted for scenarios and climate risks and opportunities

Timeframe	Time horizon	Year relative to 2024	Investment process alignment
Short term	1 to 5 years	2025	The time horizon corresponds to current risks and opportunities which are actively analysed by BNZISL and aligns to our business financial planning and strategy review process.
Medium term	6 to 20 years	2030	The time horizon is aligned with BNZISL's 2030 interim targets (as defined in the Transition plan aspects of BNZISL's strategy section below) and could correspond to a medium-term investment horizon (such as investing with the intention of saving for the education of your children).
Long term	Over 20 years	2050	The time horizon is aligned to the long-term target of net zero commitments in society.

These definitions are aligned with the Managed Investment Scheme managers industry definitions (published by FSC), and with the time horizons defined in the Scenario Analysis Workshop.

Table S.6 below displays the climate risks identified, along with the expected time horizon where the risks are relevant, how the risks are expected to impact the Scheme's investments, and the envisaged risk response. The risk management process is described in more detail in the Risk Management section below.

Table S.6 – Key climate risks

Drivers	Risk	Time horizon	Investment impact	Risk management and strategy response[10]
Increased demand for energy because of temperature increases, increasing the probability of transmission failure due to overloading.	Physical risk – chronic	Long	**Entity level (existing and potential investees) risk for utilities sector.** Potential decreases in returns on impacted securities result from additional operational expenses (e.g. new energy generation facilities) and reputational impacts (such as power outages).	Incorporation of ESG into investment decisions. Engagement with investee companies to understand resilience and adaptation measures. Divestment (if risk is deemed to be unacceptable or not managed by the investee company).
Droughts occur more frequently causing water stress, reducing crops, and impacting hydro energy supply.	Physical risk – acute	Long	**Market risk.** Increases in costs of raw materials. Adaptation costs increase through new water infrastructure (e.g. desalination plants), new innovative agricultural practices (vertical farming), and higher cost of energy, all of which impact profitability.	Incorporation of ESG into investment decisions. Engagement with investee companies to understand resilience and adaptation measures. Divestment (if risk is deemed to be unacceptable or not managed by the investee company).
Sea level rise driven by thermal expansion and the melting of ice caps which result in inundation of low-lying lands.	Physical risk – chronic	Long	**Market risk.** This could impact coastal-based infrastructure, forcing retreat, interrupting business operations, and increasing costs in addition to impacting access to insurance.	Incorporation of ESG into investment decisions. Engagement with investee companies to understand resilience and adaptation measures. Divestment (if risk is deemed to be unacceptable or not managed by the investee company).
Wildfires, heatwaves, and flood events become more common, with a greater intensity, potentially leading to health issues and infrastructure degradation.	Physical risk – acute and chronic	Medium to long	**Market risk.** This could lead to multiple disruptions to business operations, including energy and telecommunication failures. Resulting in increasing costs due to infrastructure maintenance and insurance premiums with the potential for insurance to be withdrawn.	Incorporation of ESG into investment decisions. Engagement with investee companies to understand resilience and adaptation measures. Divestment (if risk is deemed to be unacceptable or not managed by the investee company).
Extreme weather and chronic climate change will impact shipping, road, and air transport supply chains.	Physical risk – acute and chronic	Short, medium, and long	**Market risk.** Returns could potentially decrease for impacted securities (e.g. equities and corporate bonds), due to delays or collapse of supply chains. There is potential for increased inflation due to the impact on freight pricing.	Incorporation of ESG into investment decisions. Engagement with investee companies to understand resilience and adaptation measures. Divestment (if risk is deemed to be unacceptable or not managed by the investee company).

Table S.6 – Key climate risks (Continued)

Drivers	Risk	Time horizon	Investment impact	Risk management and strategy response[10]
Reducing consumer demand for emission intensive products and services.	Transition risk – market	Short, medium, and long	**Portfolio diversity and correlation risk.** Potential decrease in returns for impacted securities, due to revenue loss (e.g. through changing to a renewable energy provider) and cost increase if the companies do not react in a timely manner to market sentiment.	Incorporation of ESG into investment decisions. Engagement with investee companies to ensure that they are responding to market moves and have credible transition plans. Divestment (if risk is deemed to be unacceptable or not managed by the investee company). Climate targets focused on companies with net zero transition plans and climate solutions (see Transition plan aspects of BNZISL's strategy below).
International markets shifting away from GHG emissions intensive products – while transitioning to a net zero economy, companies which rely on GHG emissions intensive products sold internationally could be adversely impacted. This could be driven through consumer demand or through increasing carbon prices and carbon price border adjustment mechanisms for impacted sectors (e.g. agriculture, materials, energy, and transport).	Transition risk – market	Medium to long	**Portfolio diversity and correlation risk.** This could impact revenue for investee companies in high emission sectors through decreasing sales, increasing costs, and impacts to reputation.	Incorporation of ESG into investment decisions. Engagement with investee companies to understand how they are reducing emissions and managing associated carbon tax or carbon credit costs. Divestment (if risk is deemed to be unacceptable or not managed by the investee company). RI Policy exclusions.
Increasingly stringent climate change regulations mean that reductions in fossil fuel usage is rapid and mandatory, impacting business models globally. In particular, coal, oil, and gas-related assets will face increasing compliance costs.	Transition risk – policy and legal	Short to medium	**Portfolio diversity and correlation risk.** Potential business failure or decrease in returns for impacted securities, due to assets being retired before their end of life or additional investment and operational costs to address regulatory requirements and increased regulation.	Incorporation of ESG into investment decisions. Engagement with investee companies to ensure they are aware of and responding to regulatory requirements. RI Policy exclusions. Divestment (if risk is deemed to be unacceptable or not managed by the investee company). Climate targets focused on companies with net zero transition plans (see Transition plan aspects of BNZISL's strategy below).
Increasing carbon prices and carbon price border adjustment mechanisms increase costs for impacted sectors (e.g. agriculture, materials, energy, and transport).	Transition risk – policy and legal	Medium to long	**Market risk.** Will result in a potential decrease in returns for impacted securities, due to additional operational costs either through reducing GHG emissions or buying carbon offsets.	Incorporation of ESG into investment decisions. Engagement with investee companies to understand how they are reducing GHG emissions and managing associated carbon tax or carbon credit costs. Divestment (if risk is deemed to be unacceptable or not managed by the investee company). RI Policy exclusions.

[10] BNZISL responses to the key climate risks in this table are intended to illustrate the action BNZISL has taken or will take to manage and mitigate these risks; however, there is no guarantee that the responses are or would be sufficient to prevent significant losses.

Our climate scenario analysis uncovered a number of common themes, representing potential actions and opportunities that may support our business resilience and ability to adapt to uncertain futures. Table S.7 below outlines these themes, our progress, and our next steps.

Table S.7 Climate-related opportunities

Opportunity	Opportunity characteristic	Time horizon	Our progress	Our next steps
Transition – Active versus passive fund management allocation	Ability to pivot investment composition to respond to climate-related opportunities, acknowledging active management may have a greater role to play in managing climate impacts.	Short to medium	Not started	Explore active and passive management allocation in investment offering including consideration of impacts on investment outcomes. Within the passive investments, investigate use of either climate aware or Paris Agreement aligned benchmarks.
Transition – Further development of climate-related risk management capability	Continued development of climate-related systems and processes, including hiring of specialised staff and development of in-house analytical models.	Short to medium	Responsible investment specialist hired. Engaged a climate consultant. Engaged third-party data providers.	Build quantitative climate analysis capability (e.g. Climate value at risk (VaR) and Climate scenario modelling).
Physical and transition – Climate-related criteria in investment composition	Incorporation of geographical and sector considerations which could result in positive screenings and climate solution-based investment.	Short to long	Climate solutions target approved. Climate risk thresholds (based on geography and sector) were implemented.	Further develop physical and transition risk approaches and data sources.
Physical and transition – Protection and preservation of capital and income	Consider strategies that invest in physical assets including adaptation strategies, closed end funds and exit strategies for high-risk sectors.	Medium to long	Ongoing	Asset class allocation review – identify investment opportunities to alternative asset classes (e.g. infrastructure and private equity with a focus on New Zealand climate resilience).
Transition – Advocacy and communication	Engage with government and regulators to ensure the appropriate mechanisms are put in place for capital to flow to climate solutions (e.g. infrastructure, emerging technology, and private assets). Continued and transparent communication with customers to support a strong understanding of climate-related risks and opportunities in their investments.	Short, medium and long	Participation in Centre for Sustainable Finance (industry body) working group to develop proposals for government on key requirements for climate solution investment in New Zealand. Responsible investment topics (e.g. stewardship and net zero investing) included in quarterly investment updates to customers.	Identification of advocacy opportunities in New Zealand that promote climate-related risk management and investment opportunities. Provide regular updates to customers on climate-related risks, opportunities, and updates on our progress toward targets.

Approach to anticipated impacts

Our analysis of external events, risk assessment of companies vulnerable to climate risk, and exploring how future physical and transition risks will impact our portfolio has refined our approach to identifying our anticipated impacts of climate-related risks and opportunities reasonably expected by BNZISL. Our Climate Action Plan, which forms part of our RI Policy, has been developed with reasonably anticipated future impacts in mind. The 'Transition' plan aspects of BNZISL's strategy below provides more detail on this strategy and Table S.8 below shows an overview of how we are responding to anticipated future climate impacts that the Scheme is facing.

Table S.8 – Anticipated impacts of climate-related risks and opportunities for the Scheme

Anticipated future impact on Scheme investments	Time horizon	Risk event	Our response to mitigate exposure[11]
Reduced profitability of companies in countries with increasing acute climate-related events such as wildfires	Medium to long	Physical risk	Monitoring exposure to geographies vulnerable to physical climate-related risks. Increased engagement with external investment managers through quarterly meetings and reviews specific to responsible investment with a focus on climate-related physical risks and opportunities.
Increased economic impacts – inflation is far higher and GDP much lower than anticipated impacting investment returns	Short to medium	Physical and transition risks	Signal monitoring (monitoring specialist research and media for early signs of a specific scenario developing). Increased engagement with external investment managers through quarterly meetings covering economic updates, emerging themes, and reviews specific to responsible investment with a focus on climate-related transition risks and opportunities.
Significant loss in financial markets and investments from extreme physical climate events	Long	Physical and transition risks	Monitoring of physical and transition risk exposures through our risk assessment model and actions taken to reduce the exposures through divestment if required. Signal monitoring.
Reduced profitability of companies exposed to transition risk	Short to medium	Transition risk	Target in place to align investee companies within our material sectors in the Scheme to a 1.5°C pathway, and, therefore, help to ensure that they are better placed to manage transition risks. Thresholds and monitoring are in place for the High and Moderate-high ratings in our risk assessment model. Increased engagement with external investment managers through quarterly meetings and reviews specific to responsible investment with a focus on climate-related transition risks and opportunities.
Geopolitical tension as well as political shocks delay, reverse or accelerate climate policy action	Short to long	Transition risk	Thresholds and monitoring in place for the High and Moderate-high ratings in our risk assessment model. Increased engagement with external investment managers through quarterly meetings and reviews specific to responsible investment with a focus on climate-related transition risks and opportunities.

Table S.8 – Anticipated impacts of climate-related risks and opportunities for the Scheme (Continued)

Anticipated future impact on Scheme investments	Time horizon	Event type	Our response to mitigate exposure[11]
Decreased company profitability due to increased litigation and reputation	Long	Transition risk	Monitoring and identifying investee companies that are exposed to negative media, litigation, and regulatory fines (i.e. controversy monitoring) in relation to climate issues through our external investment managers. Analysis and assessment of the risk will be completed. Actions may include engaging with the company and requesting action, or if no action is taken, then divestment. Established targets to focus engagement activity on our 'material sectors', which are likely to have a higher risk of climate litigation action in the future.
Increased performance of companies supporting climate solutions	Short to Medium	Opportunity	Established targets to allocate capital to companies or projects that support climate risk mitigation and the energy transition (e.g. solar, wind, electrification of transport).
Carbon pricing systems are extended across the globe incentivising investment in climate solutions and infrastructure	Medium	Opportunity	Established targets to allocate capital to companies or projects that support climate risk mitigation and the energy transition (e.g. solar, wind, electrification of transport). Research and review alternative asset class opportunities.

While there have been initial considerations about the impact on the Scheme assets from the risks above in the context of the scenarios detailed earlier in this CRD; those views are continuing to be developed internally. We are using the exemption available under NZ CS 2 to release us from disclosing anticipated financial impacts on the Scheme for FY24.

[11] BNZISL responses to the anticipated impacts are intended to illustrate the BNZISL actions taken to manage and mitigate those impacts; however, there is no guarantee that the responses are or would be sufficient to prevent significant losses.

Transition plan aspects of BNZISL's strategy

Our Climate Action Plan and interim targets are a roadmap of how we aim to achieve our net zero ambition. The changing nature of policy, pace and scale of regulation, disclosure requirements, and level of investee company actions are outside of our control. This means that our plan and targets may change over time. The extent to which we can meet our targets also depends on how quickly the global economy transitions towards net zero.

Our ambition is to achieve net zero financed emissions by 2050 across all the Schemes that we manage (our 'net zero ambition'). During 2023, we worked with our Asset Consultant to develop a Climate Action Plan with four interim targets that support our net zero ambition, which includes dedicated capital allocation towards climate solutions across a subset of the Funds. The targets are based on the Institutional Investors Group on Climate Change (IIGCC) Net Zero Investment Framework (NZIF)[12] Implementation Guide, which has produced a global framework for the investment industry and has recommended targets set at an asset class level, noting the NZIF target recommendations for equity and fixed income asset classes are aligned.

We have set both our net zero ambition and our four interim targets at a BNZISL investment portfolio level. We will report our progress versus interim targets at both an overall BNZISL level and a Scheme level. However, it should be noted that success will be measured at a BNZISL level taking our entire investment portfolio into account (for the in-scope asset classes). This may mean that individual Funds do not meet either the interim targets or our net zero ambition for that particular Fund. We will review our targets and the level at which they are set as part of our ongoing Climate Action Plan review.

Our interim targets are designed to support a 50% reduction (from our 30 September 2019 baseline) in BNZISL's financed emissions (scope 1 and 2) at an investment portfolio level by 2030. Our overall net zero ambition is supported by key investment beliefs, namely:

1. "We believe net zero action is in the best financial interests of our customers."

We have considered the physical impacts and economic costs of climate change, the evolving global regulatory landscape and changing consumer demand in the rationale for our climate ambition and interim targets.

2. "We believe in a longer term and systems level view on how to achieve future carbon emissions reductions."

The main questions to address are whether we should either avoid and divest from carbon-intensive investments or should we engage actively on the challenges? We believe that taking an active stance, through stewardship (and being a founding signatory to the Stewardship Code Aotearoa New Zealand) is more aligned with our long-term values.

Our targets are based on the IIGCC NZIF Implementation Guide with two variances:

1. Our interim 2030 emissions reduction target (to meet or exceed a 50% reduction in our WACI collectively across our portfolios from our 2019 baseline) does not include specific sector pathways but instead focused on our identified material sectors. Our emissions reduction target reflects BNZISL's ambition to achieve net zero financed emissions by 2050, and our portfolio alignment and stewardship targets are focused on our material sectors. This means that we will engage with the sectors (or investee companies) that we have identified as the most material to achieving our emissions interim target. We expect to integrate sectoral specific emissions pathways over time as interim targets are reviewed and data and disclosure improves.
2. Our interim 2030 stewardship target is currently set at requiring at least 60% of our financed emissions in material sectors to be the subject of stewardship actions and invested with external investment managers that have credible net zero plans, as opposed to requiring at least 70% as recommended in the IIGCC NZIF Implementation Guide. This reflects the recent introduction of our stewardship framework and our currently low baseline positions whereby 34% of our financed GHG emissions in material sectors are the subject of stewardship actions and 31% of our external investment managers have credible net zero plans. These targets will be included in the review process for the RI Policy, mentioned in the Purpose and Scope sections of that document and updated as required.

[12] IIGCC Net Zero Investment Framework.

Climate Action Plan

Long term ambition: Align our investment portfolio⁻ to net zero GHG emissions by 2050 at the latest

Interim targets we aim to achieve by 2030

1. Net zero alignment

At least 70% of our financed emissions in material sectors* are either assessed as net zero aligned or aligning with a net zero pathway^.

(Absolute Target)

This target supports our ambition to decarbonise our portfolios and ensure progress in the global economy by focusing on investment in companies in our material sectors who are transitioning to a low emissions economy.

This will be a key part of our engagement strategy and require all of our external investment managers to work with companies to make commitments and set targets.

2. Stewardship

At least 60% of our financed emissions in material sectors* are the subject of stewardship actions and are invested with external investment managers that have credible net zero plans.

(Absolute Target)

Engagement is potentially the most important tool asset owners have in order to manage the transition to net zero within their portfolios.

As signatories to the Aotearoa New Zealand Stewardship Code and the PRI we're committed to stewardship and strengthening our engagement with our investee companies.

Stewardship actions refers to direct or collective actions including meetings, letters, individual and collective dialogue, media and communications, responding to consultations, as well as ensuring trade association advocacy is consistent with net zero goals.

3. Climate solutions

Identify and allocate capital to climate solutions, targeting 10% of our actively managed funds under management.

(Absolute Target)

This target supports the significant gap in investment needed globally for climate solutions. This includes companies or projects that support climate change mitigation and the energy transition (e.g., solar, wind, electrification of transport).

Decarbonisation of our portfolios will be supported by increasing allocations to climate solution investments which may include:

- Explicit climate solutions allocation within portfolios.
- Climate solution fund or project.
- Green bonds (net proceeds of the fixed income instrument will be applied toward green projects or activities that promote climate change mitigation or adaptation, or other environmental sustainability purposes).

4. Emissions reduction

Meet or exceed a 50% reduction in our Weighted Average Carbon Intensity of financed emissions collectively across our portfolios from our 2019 baseline.

(Intensity Target)

This target has been set so that we play our part in helping to limit global temperature rise to 1.5°C.

This target measures the success and effectiveness of Targets 1-3.

Three out of our four interim targets (net zero alignment, stewardship and emissions reduction) apply to both our active and passively managed investments, while the fourth (climate solutions) applies only to our actively managed investments.

Our interim targets apply to all of our listed equities and corporate bonds (which cover 72% of our FUM in the Scheme), but do not apply to government bonds and cash, reflecting data availability, applicability, and concentration of GHG emissions in the listed equities asset class. Our interim emissions reduction target covers Scope 1 and Scope 2 GHG emissions of our investee companies. Our targets do not include the use of offsets or carbon credits to achieve emissions reduction but offsets could be used by our investee companies (we do not currently collect that level of information).

Materiality of impact in relation to climate risk is identified by considering the factors that are expected to have the most significant impact on the long-term value of an entity, the environment, or society. Our material sectors are energy, materials, utilities, and transport. These represent over 75% of BNZISL's investment portfolio's GHG emissions and have been selected based on the WACI, while also considering FUM, and GHG emissions for each sector. This also aligns with the IIGCC Paris Aligned Investment Initiative (PAII) assessment[13] of the sectors that contribute the most to the world's GHG emissions.

⁻ Interim targets only apply to listed equity and bonds - see below for more information.

* Material sectors are energy, materials, utilities, and transport.

^ Net zero alignment is measured using Bloomberg PORT and is defined as an investee company that:
- Has claimed science-based GHG emissions targets, i.e. the investee company has disclosed its ambition and engagement related to setting science-based GHG emissions reduction targets. GHG emissions targets are considered science based if they align with the goals of the Paris Agreement to limit warming to well below 2°C above pre-industrial levels, or,
- Has a committed or validated SBTi net zero status – this specifies the status of the investee company's commitment to setting and achieving science-based net zero GHG emissions reduction targets. Net zero GHG targets are targets consistent with global temperature rising to no more than 1.5°C.

[13] The PAII outlines its assessment of material sectors in its Net Zero Investment Framework - Appendix B: High Impact Sectors.

Risk Management

Risk Management

As noted in the Important information section of the Overview above, BNZISL ceased to be owned by BNZ from 1 May 2024. The information in this section relates to the year ended 31 March 2024 and is correct as at this date. We expect some elements of the risk management processes to evolve as FirstCape establishes its own approach to climate risk management.

Overview

The BNZISL Board sets the overall risk appetite for investment risk, including climate risk, in BNZISL's investment portfolio and this is set out in the SIPO, which includes the SAA[14] and RI Policy. The IRC is responsible for reviewing and approving recommendations made by the BNZISL Investment Solutions team, in line with the overall risk appetite set by the BNZISL Board, ensuring alignment with the RI Policy and the SAA. Decisions made by the IRC are reported to the BNZISL Board via noting papers.

We manage investment risk such as market risk, asset allocation risk, liquidity risk, and manager risk through applying the following principles outlined below in Figure R.1.

Figure R.1 Investment risk management

Climate-related risks are considered alongside market, asset allocation, liquidity, and manager risks throughout our investment process. Leveraging our principles for managing investment risk we incorporate climate risks through our risk appetite settings, our SAA, the incorporation of risk into investment decisions made by our active managers, manager selection, and ongoing monitoring. The mix of investments that a fund holds, known also as the SAA, has the largest influence on the level of risk and potential return. The SAA is determined through CMAs which are the expected returns, standard deviations, and correlation estimates that represent the long-term risk return forecasts for the various asset classes. Climate risk has been incorporated into the CMA models alongside market and liquidity scenarios and stress testing.

More detail on the identification and assessment process can be found in the External investment manager approach section below and the SAA process detailed within the Scenarios section below.

For our risk assessments and reporting we define climate-related risks as the potential risks that arise from the current and anticipated impacts of climate change, including GHG emissions reduction efforts by investee companies, our ability to adapt to climate change impacts within the Scheme, and the resulting financial consequences for the risk and return profile of the Scheme and its underlying Funds, and therefore, Scheme members.

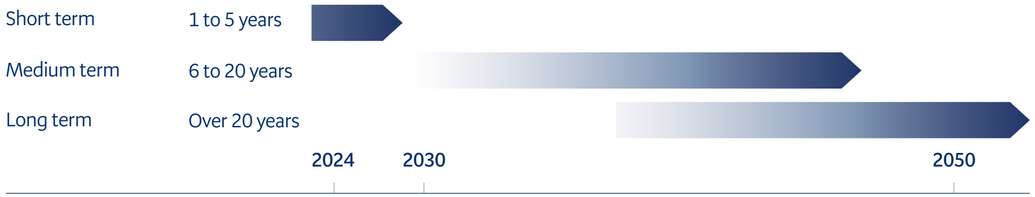
BNZISL applies both a top-down and bottom-up approach to oversight, identification, and assessment of climate-related risks for each Fund within the Scheme. The key aspects of this approach are as follows:

1. Oversight
   a. recognition of climate-related risk in our risk appetite (see below for more information)
   b. integration of climate-related risk into our Risk Management Framework (RMF) (see RMF section below for more information)
   c. external investment manager selection
2. Identification
   a. physical and transition risk assessment of investee companies within each Fund
   b. climate scenarios
   c. exclusions as stated in our RI Policy
   d. external investment manager approach
3. Assessment
   a. ongoing review
   b. reporting

BNZISL considers climate-related risks over the following time horizons (with years relative to 2024).

[14] The mix of asset classes that we believe will allow us to meet our long-term performance objectives.

Figure R.2 Time horizons



When considering the identification and assessment of climate-related risks and opportunities within the Scheme, we look at all aspects of BNZISL's value chain (e.g. BNZISL's suppliers), recognising that the vast majority of climate-related impacts on the Scheme are from the impacts associated with investee companies. GHG emissions associated with our investee companies are generally limited to scope 1 and 2. More detail on the identification and assessment process can be found under the Identification section below.

While this CRD covers the material risks for the Funds and the Scheme, BNZISL's operational emissions (scope 1 and 2) and the scope 3 emissions relating to material suppliers are included until September 2023 in the BNZ Climate Report. As noted in the Overview section above BNZISL is no longer a wholly-owned subsidiary of BNZ from 1 May 2024.

1. Oversight

a. Risk appetite setting

Our overall risk appetite for climate risk in our investment portfolios is set by the BNZISL Board (and included in the BNZISL Risk Appetite statement). Our risk appetite aims to reduce our Funds' GHG emissions, and the carbon footprint of businesses we either support or invest in.

BNZISL's risk appetite settings are reflected in our RI Policy. Our RI Policy forms the guiding principles to BNZISL's approach to responsible investing.

Accountability for setting risk appetite, identifying, assessing, and managing the ongoing risks (including climate risks) for the Scheme is summarised in Figure R.3 below. The 1st and 2nd line risk roles within this Figure reflect roles within BNZ; these will be replaced by equivalent roles in FirstCape.

Figure R.3 Climate risk roles and responsibilities

Roles	Responsibilities
Risk appetite	BNZISL Board
Risk identification and assessment	BNZISL Management and IRC
Risk management and reporting	Investment Solutions team
	BNZISL Board
	BNZISL Management and IRC
Risk metrics, tools and data	Investment Operations
Risk inventory	1st line risk
	2nd line risk
Monitoring market and legislative development	Investment Solutions team
	BNZISL Board
	2nd line risk

b. RMF

BNZISL, as a wholly-owned subsidiary of BNZ, followed the NAB Group's RMF and operated a three lines of risk accountability model for risk management, including climate risk, which is described below.

- **1st line risk accountability** – business units' own risks and obligations including climate risks and obligations, and the controls and mitigation strategies that help manage them.
- **2nd line risk accountability** – a functionally segregated and independent risk function which develops RMFs, defines risk boundaries, and provides objective reviews and challenges regarding the effectiveness of risk management within the business including climate risks and obligations.
- **3rd line risk accountability** – an independent internal audit function reporting to the BNZ Board which monitors the end-to-end effectiveness of risk management (including climate risks and obligations) and compliance with the RMF.

c. External investment manager selection

We outsource the management of our investments to experienced global and domestic external investment managers. Our due diligence process ensures that the active managers we appoint incorporate ESG considerations into their investment process, and this is specifically required under each IMA. Appointing external investment managers who have a robust approach of incorporating ESG factors (including climate risks and opportunities) into investment decisions is a key part of the identification element of climate risks, which is outlined in the Identification section below. Our external investment manager selection process is described in the Governance section above.

2. Identification

a. Physical and transition risk assessment framework

We use a high-level risk identification process to identify and understand exposure and vulnerabilities in relation to climate risks in the Scheme and each of the Funds (see Appendix 1 for our full methodology).

We source our carbon emissions data and other company-specific data such as industry and geographic location from Bloomberg via their PORT tool[15]. This tool provides emissions, sector, region, and transition readiness data for the investee companies and sovereign entities. The tool uses Bloomberg's GHG fundamental data as well as Bloomberg's GHG estimated data (our methodologies, assumptions and data limitations are detailed in Appendix 1 and in the Metrics and Targets section for companies that haven't previously reported this type of data).

In August 2023, a high level physical and transition risk assessment framework was developed which, through a scoring system, identified the sectors, geographies, and companies that were most vulnerable to both physical and transition risks (see our Strategy section above for detailed results of the physical and transition risk assessment as at 31 March 2024).

The physical and transition risks of each investee company within the equity and fixed interest asset classes were assessed using a scoring methodology which used a five-point scale.

1. High
2. Moderate-high
3. Moderate
4. Moderate-low
5. Low

The scores consist of a rating for both physical and transition risks. Data sources (including their scope and limitations) used for determining a relative physical and transition risk score are detailed in Appendix 1. The overall climate-related risk rating assigned to each investee company is derived from the higher of either the physical or transition risk rating for that investee company, e.g. an investee company with a high physical risk rating and a moderate transition rating will have a climate-related risk rating of high. The climate risk heatmaps for the individual Funds are provided in Appendix 4.

The above scores are aggregated at a Fund level and tolerance levels have been set for the high and moderate high climate risk ratings for each Fund type. Focusing on exposure to the two highest climate risk ratings (high and moderate-high) enables management to prioritise investee companies that may be exposed to more significant climate risk. The tolerance levels for each Fund are outlined in Table R.1 below.

Table R.1 Climate risk tolerances

Risk setting	International Equity Fund	Australasian Equity Fund	International Fixed Interest Fund	NZ Fixed Interest Fund
High	20%	20%	15%	10%
Moderate-high	30%	30%	25%	15%

[15] PORT Enterprise is Bloomberg's Portfolio Risk and Climate Analytics tool designed to provide asset owners with an integrated suite of tools to efficiently manage research, analysis and compliance tasks across ESG scores, GHG emissions data, portfolio carbon footprint and temperature alignment indicators.

The climate risk tolerance settings do not apply to the Cash Fund as the securities held in this Fund are predominantly short-term in nature and, as such, are not expected to lose value due to adverse climate scenarios.

These tolerances will be reviewed by the Investment Solutions team on a semi-annual basis and where tolerances have been exceeded, we undertake the following:

- Analyse underlying cause or drivers of tolerance excess.
- Engage with external investment managers to understand what drivers, market considerations and specific entity transition and/or adaptation strategies are in place that may mitigate the identified risks, if required.
- Report the results semi-annually to the IRC with recommendations for action, if required.

In May 2024, the Investment Solutions team conducted a review based on 31 March 2024 data. This review showed that investee companies within the energy, materials, and utilities sectors were rated as high risk, and investee companies within the real estate, industrials, transport, and consumer discretionary sectors were rated as moderate-high risk. This was largely driven by transition risk and some physical risk from companies headquartered in Asia (ex. China and Japan). The Scheme's Australasian Equity Fund's high-risk threshold was exceeded by 1%. The excess was driven by exposure to New Zealand based utility companies and is driven by the high transition risk associated with this sector. The two largest exposures associated with a high-risk rating are renewable energy providers, these investee companies both have SBTi approved GHG emissions reduction plans in place. Management was comfortable with the risk and no action was taken.

b. Scenarios

We use scenario analysis in two ways, to:

- Assess climate-related impacts on the CMA analysis that are used to determine the SAA for the Scheme and each of its Funds. Quantitative climate scenarios have been developed by our Asset Consultant to incorporate climate impacts and risk parameters into our SAA process. Climate impacts and risk parameters that are used in the CMA process are considered in conjunction with market and liquidity parameters to determine the expected risk and return outcomes for each asset class.
- Test the resilience of both the Scheme's strategy and investments to climate-related risks. These scenarios, which are outlined in our Strategy section above, will be updated annually, and the implications and outcomes of this process will be included as an input to our investment strategy. This annual review will ensure we continue to develop our approach to climate scenario analysis as the data and modelling improves and evolves.

c. Exclusions

BNZISL's RI Policy specifies which sectors are excluded from the investment opportunity set within BNZISL's mandates. The RI Policy and these exclusions apply to BNZISL's decision-making in respect of the assets of each Fund within the Scheme.

In determining which sectors are excluded, consideration is given to factors including the expected risk and return, materiality of the risks, the regulatory environment, and alignment with BNZISL's values. In April 2020, some securities in the oil, gas, and coal sectors were excluded due to the expected impact on the risk and return of those securities due to changes associated with the transition to a low-emissions economy. These exclusions were refined in 2021 and again in 2023, which further reduced the Scheme's exposure to these sectors. As a result, we currently have minimal exposure to investee companies that are involved in mining, processing, exploration, or the production of oil, gas, or coal (see our RI Policy for details). The Funds' exposure to these sectors could alter as changes are approved in respect of the RI Policy.

d. External investment manager approach

The Scheme has both active and passively managed strategies. Our active external investment managers integrate ESG considerations including climate risk identification into their investment decision and engagement process. Our passive external investment managers incorporate climate risks into their engagement process, with climate risk a key consideration when prioritising company engagement for our active and passive external investment managers. Climate risks identified by our active external investment managers as part of their research process are considered alongside other risks such as credit, liquidity and market risks when making investment decisions.

When integrating the identification and assessment of climate risks into investment decisions our active external investment managers use third-party scores from ESG data providers as an input to their research process. These scores measure a company's exposure to and management of material ESG issues including climate risks. Some of the active external investment managers also use their own internal scoring of each company, which includes qualitative research and relative assessment (i.e. how they are performing compared to peer companies). These assessments also incorporate controversy scanning by third party ESG data providers or the external investment managers (or both), to flag any potential breaches by the investee company of legal, regulatory or consumer expectations.

We expect our external investment managers to use stewardship as a key tool in their underlying approach to identifying risks and opportunities. We are a founding signatory to the Stewardship Code Aotearoa New Zealand, and we believe stewardship will play a key role in moving towards our net zero ambition. The focus of stewardship (which is also called active ownership) is to create and preserve long-term value for our investors, and the stewardship concept incorporates company engagement, voting (for equity holdings), collaboration with other investment managers or investors to advocate for change as well as the ongoing monitoring of action and outcomes resulting from the stewardship process.

The approach is dependent on both the investment style and the asset class. Figure R.4 below shows which elements are utilised by the active and passive strategies for the Scheme.

Figure R.4 Passive versus active approach to incorporating climate risk by asset class

	Equities		Fixed interest		Cash
	Passive	Active	Passive	Active	Active
Collaboration and escalation	✓	✓	✓	✓	✓
Exclusions	✓	✓	✓	✓	✓
Investment integration		✓		✓	✓
Divestment		✓		✓	✓
Voting	✓	✓			

3. Risk assessment

a. Ongoing review

We meet with each of our external investment managers quarterly to review actions taken in relation to climate risks and opportunities. An important aspect of these reviews is to understand the approach that our external investment managers have taken in identifying, managing, and incorporating climate risks and opportunities into their engagement process, investment decisions, and portfolio risk management.

From 2024 onwards, we will review the semi-annual results of the physical and transition risk assessment, described in the Identification section above, with our external investment managers to identify implications for the Scheme (and the Funds') investments and determine what actions may need to be taken.

b. Reporting

We receive quarterly reporting on stewardship and voting activities undertaken from all our external investment managers which describe the type of engagements, number of engagements, voting decisions and case studies or examples of these activities within the portfolio. These reports are used by BNZISL Management to ensure our external investment managers are performing stewardship activities that support the management of risk, opportunity, and progress toward our net zero ambition (see the Strategy section above for more details).

A six-monthly engagement report is provided to the IRC, which covers the effectiveness of the external investment managers' engagement approach, any changes to policies, resourcing or processes, material changes to the climate risks in the portfolio, and ongoing monitoring of active engagements including escalations.

Metrics

Metrics

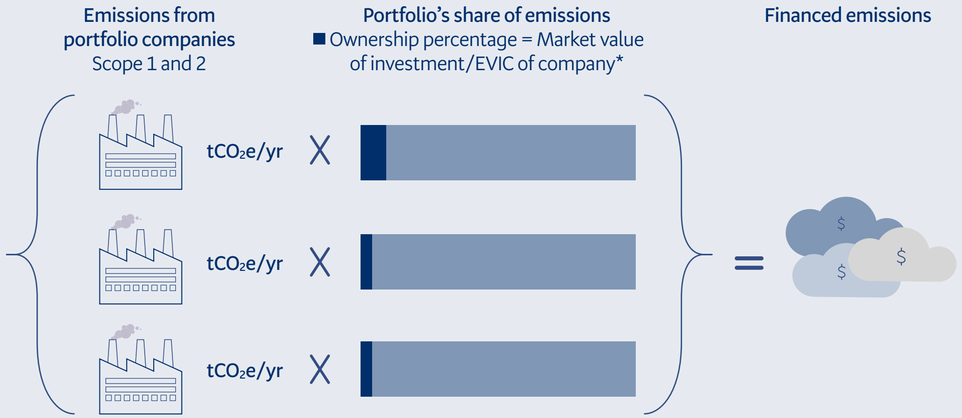
As noted in the Overview above, BNZISL ceased to be owned by BNZ from 1 May 2024. The information in this section relates to the year ended 31 March 2024 and was correct as at this date. We expect some elements of the process used to calculate and measure emissions to evolve as FirstCape establishes its own approach to climate risk governance and metrics.

The RI Policy outlines our ambition to align our investment portfolio with net zero GHG emissions by 2050 at the latest. Our interim 2030 emissions reduction target is to meet or exceed a 50% reduction in our total WACI of the scope 1 and 2 emissions across our investment portfolio from our 2019 baseline by 2030. The WACI target measures the effectiveness and success of our full set of interim 2030 targets in our Climate Action Plan. See the Targets section below for further information.

WACI is commonly used by the investment industry as a metric to analyse portfolio exposure to carbon intensive companies and is expressed as tonnes of carbon dioxide equivalents (tCO_2e)/NZD mn of company revenue. We have chosen this as our principal metric for measuring our investment portfolio's financed GHG emissions and monitoring progress towards our targets.

Companies with higher levels of carbon intensity can be at risk of suffering climate-related impacts. Policies aimed at curbing GHG emissions create more significant risks to carbon-intensive industries. We have used WACI as a key input to determine our most material sectors and as an indicator of transition risk.

Figure M.1 – Financed GHG emissions calculation



Financed emissions

Financed emissions are the Funds' share of GHG emissions from the companies it invests into. The GHG emissions of the investee companies are attributed to the Funds based on the Funds' proportional share of investment in each of the investee companies of the portfolio (see Figure M.1).

The Partnership for Carbon Accounting Financials (PCAF)

To calculate the GHG emissions produced by investee companies and the appropriate metrics for each of our Funds, we've used the Financed Emissions Standard developed by the PCAF.

PCAF is an international industry-led initiative that helps financial institutions assess and disclose GHG emissions.

The PCAF Financed Emissions Standard provides detailed guidance for each asset class to calculate the financed GHG emissions resulting from activities in the real economy that are financed through lending and investment portfolios.

Where possible, we have adopted the guidance afforded by the PCAF Financed Emissions Standard across our listed equity and corporate bond exposures.

Where there is no current PCAF method for calculating GHG emissions or where reliable data is not yet available from our data supplier, those asset types have been excluded from the scope of the calculations (see Table M.3 below). Asset types excluded on this basis are government bonds, derivatives, and cash.

Limitations

The calculation date of the data and metrics disclosed in this report was 31 March 2024. GHG emissions reported by investee companies can take time to be reported to data suppliers. Therefore, metrics may contain GHG emissions data from earlier periods. Short-term variations in the calculation of GHG emissions metrics can also be impacted due to:

- limited data and/or data quality of investee companies
- changes in reported or estimated GHG emissions of investee companies
- changes in NZD currency.

Some limitations of using the metrics we have chosen include[16]:

Total carbon emissions:

- This metric is generally not used to compare portfolios because the data is not normalised to account for a Fund's proportional investment in a particular investee company.

* EVIC - Enterprise Value including Cash

[16] We have followed the limitations published by the Task Force on Climate-related Financial Disclosures: Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures 2021, Table 3.

WACI:

- This metric is sensitive to outliers, e.g. one large investment by a Fund in a particularly high GHG emissions intensive investee company could significantly impact the WACI for that Fund.
- Using revenue to normalise the data to account for a Fund's proportional investment in a particular investee company tends to favour companies with higher pricing levels relative to their peers.

Carbon footprint:

- This metric does not account for differences in the size of companies (e.g. it does not consider the carbon efficiency of companies).

GHG emissions

There are seven gases included under the Kyoto Protocol which significantly contribute to climate change. These GHGs are converted to carbon dioxide equivalents (CO_2e) using the 100-year time horizon global warming potential (GWP) published by the Intergovernmental Panel on Climate Change (IPCC).[17] These are periodically updated. We do not use any GHG emissions factors to calculate GHG emissions from investee company activities, we only capture GHG emissions figures reported by investee companies directly or estimated by our GHG emissions data provider (Bloomberg PORT).

Scopes

GHG emissions are classified into three distinct 'scopes', as defined by the GHG Protocol Corporate Standard. This involves companies identifying GHG emissions associated with their operations and full value chain and categorising them as direct or indirect emissions.

Scope 1: Direct GHG emissions that occur from sources owned or controlled by the reporting company, i.e. emissions from running boilers, furnaces, vehicles, etc.

Scope 2: Indirect GHG emissions from the generation of purchased or acquired electricity, steam, heating, or cooling consumed by the reporting company. Scope 2 emissions physically occur at the facility where it is generated.

Scope 3: All other indirect GHG emissions (not included in scope 2) that occur in the value chain of the reporting company.[18]

Climate-related metrics

Table M.1 below sets out the different metrics that the Scheme uses to measure and manage its climate-related risks and opportunities.

The climate-related metrics are important to show how 'vulnerable' BNZISL considers each Fund's investments are to potential physical and transition risks. Vulnerability encompasses a variety of concepts and elements, including sensitivity or susceptibility to harm and lack of capacity to cope or adapt. The metrics will support BNZISL's Board and management to direct investments more effectively by being able to measure and describe the impacts of climate-related risks and opportunities. Metrics are also important for identifying, assessing, and managing climate-related risks and how these are incorporated into BNZISL's overall risk management processes.

BNZISL does not currently use internal emissions prices in its decision-making process.

Base year and comparative metrics may be restated when such recalculation is considered to be significant and material. This is our first CRD, therefore no restatements have been made in this report.

Specific industry-based metrics are yet to emerge; but are likely to include the metrics outlined in table M.1

[17] The IPCC reports can be found at: www.ipcc.ch
[18] PCAF Financed Emissions Standard.

Table M.1 Climate-related metrics

Climate metric	Description	Calculation	Unit	Physical/ transition risks or opportunity	31 March 2024 (Scheme)	31 March 2023 (Scheme)
Total carbon emissions	The absolute GHG emissions associated with the Scheme, expressed in tonnes CO_2e.	$\sum_n^i \left(\frac{\text{current value of investment}}{\text{issuer's market capitalisation}} \times \text{issuer's Scope 1 and Scope 2 GHG emissions} \right)$	tonnes CO_2e	Transition	22.8k	25.5k
Weighted average carbon intensity (WACI)#	The Scheme's exposure to carbon-intensive companies, expressed in tonnes CO_2e/NZD mn revenue.	$\sum_n^i \left(\frac{\text{current value of investment}}{\text{current portfolio value}} \times \frac{\text{issuer's Scope 1 and Scope 2 GHG emissions}}{\text{issuer's \$M revenue}} \right)$	tonnes CO_2e/ NZD mn revenue	Transition	56.8	66.5
Carbon footprint#	Total carbon emissions for a portfolio normalised by the market value of the portfolio, expressed in tonnes CO_2e/NZD mn invested.	$\frac{\sum_n^i \left(\frac{\text{current value of investment}}{\text{issuer's market capitalisation}} \times \text{issuer's Scope 1 and Scope 2 GHG emissions} \right)}{\text{current portfolio value (\$M)}}$	tonnes CO_2e/ NZD mn invested	Transition	18.1	20.6
Vulnerability to physical climate disruptions	The percentage of FUM invested in countries vulnerable to physical climate disruptions that are considered moderate-high or high.	$\frac{\sum_n^i \text{FUM considered moderately - high or high}}{\sum_n^i \text{Total FUM}}$	% FUM	Physical	0.92%	1.11%
Investment in climate-aligned investments	The percentage of financed emissions in material sectors either assessed as net zero aligned or aligning with a net zero pathway.	$\frac{\sum_n^i \text{Financed emissions of companies in material sectors with net zero aligned or aligning companies}}{\sum_n^i \text{Total financed emissions of companies in material sectors}}$	% material sector FUM	Opportunity	32.2%	NA*
Investment in climate solutions investments^	The percentage of actively managed FUM invested in climate solutions.	$\frac{\sum_n^i \text{FUM invested in climate solutions}}{\sum_n^i \text{Total actively managed FUM}}$	% actively managed FUM	Opportunity	3.2%	3.1%

Current portfolio values only include Scheme or Fund assets which are in-scope and where data is available. This enables comparisons across Schemes or Funds and periods as data changes.

* Investment in climate-aligned investments data was not captured at 31 March 2023.

^ See the Targets section below for further information on climate-solutions investments.

Summary of financed emissions

The Scheme's WACI as at 31 March 2024 was 56.8, down from 66.5 as at 31 March 2023, and down from our 2019 baseline of 106.8. The reduction in WACI was a 47% reduction from our 2019 baseline. This reflects changes to exclusions implemented in accordance with the RI Policy and a reduction in emissions from the underlying investee companies, relative to revenue.

The utilities, materials, and transport sectors had the largest absolute reduction in WACI from our 2019 baseline. Within asset classes, the International Fixed Interest Fund had the largest absolute reduction in WACI from our 2019 baseline.

Total carbon emissions for the Scheme were 22,773 tCO_2e, decreasing 11% from 31 March 2023 and 70% from our 2019 baseline. This is primarily a result of a decrease in FUM and holdings in the investee companies, decreasing the Scheme's share of investee companies' emissions. New RI Policy exclusions implemented since 2019 have also contributed to a reduction in total carbon emissions.

The Scheme's 'Carbon Footprint' for the year ended 31 March 2024 was 18.1, down from 20.6 for the year ended 31 March 2023 and down from our 2019 baseline of 52.7.

Our climate-related metrics are set out in Tables M.2 and M.5 below. We provide total carbon emissions, WACI and carbon footprint data for all our Funds. This reporting is limited to the FUM for which we have available data, which was 72% of our total data this reporting year (and for some Funds is much lower).

Further details of financed emissions

Financed emissions in Table M.2 below include only scope 1 and 2 GHG emissions from the Scheme's investee companies. These are classified as scope 3, category 15 (investments) emissions of the Scheme based upon the Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Scope 3 emissions for investee companies in material sectors are separately disclosed in Table M.4 below.

In accordance with the PCAF Financed Emissions Standard, these Funds adopted the financial control consolidation approach. We excluded certain securities from the Scheme, in accordance with BNZ's Sanctions Policy. However, due to selling restrictions on foreign investors, the Scheme still has exposure to a small number of Russian equity securities. These securities hold a nil value in the Funds, and therefore, the emissions of the investee companies are excluded from our calculations.

Further details of data sources

We have utilised Bloomberg Sustainability Data Solutions for investee companies' GHG emissions data and the calculation of certain metrics for our Funds. If reported data is not available for an investee company, where possible, Bloomberg use a model to estimate the GHG emissions of companies guided by a 'waterfall principle'. The waterfall principle consolidates different available emissions data into a single field giving priority to reported data then to Bloomberg's proprietary GHG model and finally to an industry implied model.

The calculation date of the metrics and data published in this report was 31 March 2024. There is often a lag between financial reporting and the reporting of required emissions-related data for an investee company. Bloomberg uses the most recent GHG emissions data publicly available; it is expected this is comprised of 2024 financial data alongside 2023 (or other most recent) GHG emissions data.

Table M.2 Climate-related metrics (Scheme)

For Fund level reporting, see Table M.5 below for additional information

Date	Total FUM NZD mn^	FUM in-scope (PCAF for available data) NZD mn	In-scope FUM for which data is available %	Total carbon emissions tCO_2e (scope 1 and 2 emissions)	WACI (tCO_2e/ NZD mn revenue)	Carbon footprint (tCO_2e/NZD mn invested)	Data quality score#
As at 31 March 2024	**1,741.8**	**1,251.2**	**71.8%**	**22,772.5**	**56.8**	**18.1**	**2.7**
As at 31 March 2023	**1,714.1**	**1,227.8**	**71.6%**	**25,483.6**	**66.5**	**20.6**	**1.6**
% difference to 31 March 2024	2%	2%	0%	-11%	-15%	-12%	
As at 30 September 2019	**2,462.4**	**1,434.0**	**58.2%**	**75,623.3**	**106.8**	**52.7**	**1.8**
% difference to 31 March 2024	-29%	-13%	23%	-70%	-46.8%	-66%	

Climate-related metrics for the above have not been assured.

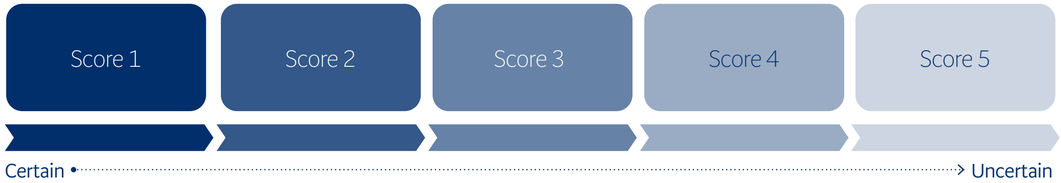
^ FUM may be different from the financial statements of the Scheme due to bid/ask adjustments, final day registry postings and price source differences.

See Data quality score section (below) for further explanation.

Data quality score

The PCAF Financed Emissions Standard provides guidance on data quality. Data quality scoring is specific to each asset class. High-quality data can be difficult to ascertain when calculating financed emissions, particularly for certain asset classes and emissions data of the many investee companies. In general, the lower the number, the more robust the data underlying the calculation. Further details of this can be found in the PCAF Financed Emissions Standard. The data quality score in this document has been calculated by Bloomberg applying the PCAF methodology. The data quality score for each Fund is included in Table M.6 below. The overall data quality score for the Scheme is 2.8 (see Figure M.2 below).

Figure M.2 PCAF general data quality scorecard



Scope 3 emissions

Scope 3 emissions include all indirect GHG emissions (not included in scope 2) that occur in the value chain of the reporting company. Scope 3 can be broken down into upstream emissions and downstream emissions.

Upstream emissions include all emissions that occur in the life cycle of a material, product, or service up to the point of sale by the producer, such as from the production or extraction of purchased materials.

Downstream emissions include all emissions that occur because of the distribution, storage, use, and end-of-life treatment of the organisation's products or services.[19]

Scope 3 data still varies greatly per sector and data source. We have used Bloomberg as the source of scope 3 emissions, in line with the approach taken for scope 1 and 2.

We have provided scope 3 estimated total carbon emissions in Table M.4 for material sectors. Material sectors are classified using Bloomberg's Industry Classification System (BICS), hierarchical classification of industries. This classification differs from the Nomenclature of Economic Activity (NACE) classification recommended by PCAF; however, it allows for consistency with other sections of the CRD and disclosure of sectors considered material by BNZISL, which wouldn't have been possible if the NACE classification recommended by PCAF was used.

Table M.3 Assets not included in emissions calculations (Scheme)

For Fund level reporting, see Table M.6 below for additional information

Financial year ended	Assets for which data was not available from provider: Government bonds NZD mn	Assets not in-scope of PCAF methodology: cash, derivatives, other NZD mn	Assets for which emissions data was not available NZD mn	Total assets not in-scope NZD mn	Total FUM NZD mn
31 March 2024	279.0	183.4	28.2	490.5	1,741.8
31 March 2023	245.3	219.4	21.6	486.3	1,714.1

[19] PCAF Financed Emissions Standard.

Table M.4 Material sector scope 3 emissions (Scheme)

For Fund level reporting, see Table M.7 below for additional information

	Energy	Materials	Utilities	Transport
31 March 2024				
Total FUM NZD mn	6.6 (0.4% of total FUM)	66 (3.8% of total FUM)	122.3 (7.0% of total FUM)	62.2 (3.6% of total FUM)
Estimated total tCO_2e (scope 3 emissions)	293.7	13,329.3	12,538.3	11,745.9
Data quality score	3.4	3.1	2.4	2.3

Sector analysis of emissions

Figure M.3 below provides a sector breakdown of the WACI of each Fund. Sectors have been classified using BICS. The sector classification system or allocation of individual companies may be revised as best practice emerges.

Remuneration

In 2023, all employees were assessed against a balanced score card, which included assessment of their proactive management of risks. The risk pillar of the scorecard was weighted at at least 25%. Scorecards for members of the CWG then expressly referred to either the management of climate-related risks or delivery of CRD as relevant. In 2023, the General Manager Wealth was specifically accountable for delivery of a climate workstream that included delivery of our Climate Action Plan and CRD within their overall performance outcome.

Physical risk

We use the ND-GAIN Country Index to calculate our Funds' vulnerability to physical climate disruptions. Further information on ND-GAIN can be found in the Risk Management section above and in Appendix 1. For Fund level reporting, see Table M.8 below for additional information on vulnerability to physical climate disruption considered moderate-high or high risk.

Figure M.3 WACI by sector

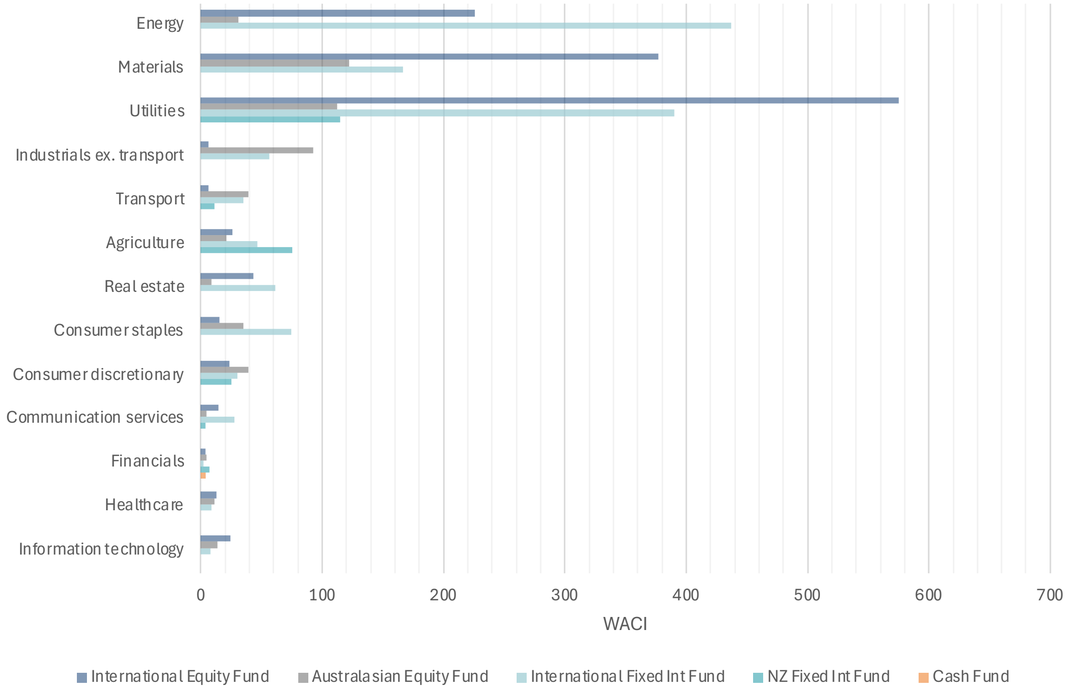


Table M.5 Additional information at Fund level

Fund name	Total FUM NZD mn	FUM in-scope (PCAF for available data) NZD mn	In-scope FUM for which data is available %	Total carbon emissions tCO_2e (scope 1 and 2 emissions)	WACI (tCO_2e/NZD mn revenue)	Carbon footprint (tCO_2e/NZD mn invested)	Data quality score
As at 31 March 2024							
International Equity Fund	670.9	667.7	99.5%	10,201.2	54.1	15.3	2.8
Australasian Equity Fund	296.1	292.5	98.8%	4,971.0	37.7	17.0	2.1
International Fixed Interest Fund	467.1	233.2	49.9%	7,168.5	98.2	30.2	3.0
NZ Fixed Interest Fund	173.3	44.4	25.6%	424.5	27.5	9.6	2.9
Cash Fund	134.4	13.4	9.9%	7.3	3.7	0.6	3.5
Total	**1,741.8**	**1,251.2**	**71.8%**	**22,772.5**	**56.8**	**18.1**	**2.7**
As at 31 March 2023							
International Equity Fund	635.6	624.5	98.2%	9,945.6	61.0	15.9	1.2
Australasian Equity Fund	299.7	291.7	97.3%	6,512.2	48.0	22.3	1.7
International Fixed Interest Fund	458.5	255.8	55.8%	8,466.7	107.3	32.1	2.0
NZ Fixed Interest Fund	179.6	49.4	27.5%	553.8	40.8	11.2	2.5
Cash Fund	140.7	6.4	4.6%	5.3	6.2	0.8	2.1
Total	**1,714.1**	**1,227.8**	**71.6%**	**25,483.6**	**66.5**	**20.6**	**1.6**
As at 30 September 2019							
International Equity Fund	834.6	807.2	96.7%	43,844.2	103.1	54.4	1.6
Australasian Equity Fund	338.8	323.0	95.3%	15,145.5	104.2	46.9	2.1
International Fixed Interest Fund	870.3	189.1	21.7%	15,492.4	179.4	80.8	1.8
NZ Fixed Interest Fund	268.9	69.4	25.8%	1,101.5	32.3	15.8	2.7
Cash Fund	149.8	45.3	30.2%	39.7	5.0	0.9	1.9
Total	**2,462.4**	**1,434.0**	**58.2%**	**75,623.3**	**106.8**	**52.7**	**1.8**

Climate-related metrics for the above have not been assured.

Table M.6 Assets not included in GHG emissions calculations

See Table M.5 above for further details of in-scope assets.

Fund name	Assets for which data was not available from provider: Government bonds NZD mn	Assets not in-scope of PCAF methodology: Cash, derivatives, other NZD mn	Assets for which emissions data was not available NZD mn	Total assets not in-scope NZD mn	Total FUM NZD mn
As at 31 March 2024					
International Equity Fund	-	3.1	-	3.1	670.9
Australasian Equity Fund	-	2.9	0.7	3.5	296.1
International Fixed Interest Fund	198.5	7.9	27.5	233.9	467.1
NZ Fixed Interest Fund	80.5	48.4	-	128.9	173.3
Cash Fund	-	121.1	-	121.1	134.4
Total	**279.0**	**183.4**	**28.2**	**490.5**	**1,741.8**
As at 31 March 2023					
International Equity Fund	-	11.2	-	11.2	635.6
Australasian Equity Fund	-	4.2	3.8	8.0	299.7
International Fixed Interest Fund	166.7	18.2	17.8	202.7	458.5
NZ Fixed Interest Fund	78.6	51.5	-	130.1	179.6
Cash Fund	-	134.3	-	134.3	140.7
Total	**245.3**	**219.4**	**21.6**	**486.3**	**1,714.1**

Climate-related metrics for the above have not been assured.

Table M.7 Material sector scope 3 emissions as at 31 March 2024 (Fund level)

Fund name	Energy	Materials	Utilities	Transport
International Equity Fund				
Total FUM NZD mn	-	50.7	12.6	5.0
Estimated total tCO_2e (scope 3 emissions)	-	8,748.2	6,615.7	3,014.7
Data quality score	-	3.1	2.9	2.0
Australasian Equity Fund				
Total FUM NZD mn	1.0	9.4	50.7	51.0
Estimated total tCO_2e (scope 3 emissions)	39.2	2,075.6	1,308.3	7,755.5
Data quality score	3.0	3.7	1.2	2.2
International Fixed Interest Fund				
Total FUM NZD mn	5.6	5.9	51.6	5.0
Estimated total tCO_2e (scope 3 emissions)	254.5	2,505.5	4,388.1	781.0
Data quality score	3.5	2.0	3.3	4.0
NZ Fixed Interest Fund				
Total FUM NZD mn	-	-	7.4	1.2
Estimated total tCO_2e (scope 3 emissions)	-	-	226.2	194.7
Data quality score	-	-	2.5	1.3
Cash Fund				
Total FUM NZD mn	-	-	-	-
Estimated total tCO_2e (scope 3 emissions)	-	-	-	-
Data quality score	-	-	-	-

Climate-related metrics for the above have not been assured.

Table M.8 Vulnerability to physical climate disruption considered moderate-high or high at Fund level

Year	International Equity Fund	Australasian Equity Fund	International Fixed Interest Fund	NZ Fixed Interest Fund	Cash Fund
2024	2.39%	0.00%	0.00%	0.00%	0.00%
2023	2.99%	0.00%	0.00%	0.00%	0.00%

Targets

Targets

At BNZISL, we believe that reaching net zero across our investment portfolio may be in the best long-term financial interests of our investors. In forming this belief, we have considered the physical impacts and economic costs and opportunities from climate change, the evolving global regulatory landscape, and changing consumer demand.

Our ambition is to align our investment portfolio with net zero GHG emissions by 2050 at the latest, in line with the Paris Agreement's 1.5°C threshold. We aim to meet or exceed a 50% reduction in our WACI from our 2019 baseline by 2030 for the scope 1 and 2 emissions of our investee companies. To achieve our net zero ambition, we have set four interim targets for 2030.

Our targets are included in the BNZISL RI Policy and apply to BNZISL's investments at a portfolio level but are not applied specifically by the Scheme or by the Funds (see Strategy section above for more details on our targets). However, the Scheme, by virtue of its size, will play a material part in meeting those targets.

Table T.1 – Scheme progress towards targets

2030 target	Progress as at 31 March 2024	Tracking
Net zero alignment – absolute target At least 70% of our financed emissions in material sectors are either assessed as 'net zero aligned' or 'aligning with a net zero pathway' as evaluated by SBTi.	32.2%	More to do
Stewardship – absolute target At least 60% of our financed emissions in material sectors are: a) the subject of stewardship actions b) invested with external investment managers that have credible net zero plans for their portfolios.	a) 38.0% b) 34.7%	On track
Climate solutions – absolute target Identify and allocate capital to climate solutions, targeting 10% of our actively managed FUM.	3.2%	More to do
Emissions reduction – intensity target Meet or exceed a 50% reduction in our WACI of financed emissions across our entire portfolio from our 2019 baseline.	46.8%	On track

Table T.2 – BNZISL progress towards targets (across all our Schemes and Funds)

2030 target	Progress as at 31 March 2024	Tracking
Net zero alignment – absolute target At least 70% of our financed emissions in material sectors are either assessed as 'net zero aligned' or 'aligning with a net zero pathway' as evaluated by SBTi.	39.0%	On track
Stewardship – absolute target At least 60% of our financed emissions in material sectors are: a) the subject of stewardship actions b) invested with external investment managers that have credible net zero plans for their portfolios.	a) 36.4% b) 31.1%	On track
Climate solutions – absolute target Identify and allocate capital to climate solutions, targeting 10% of our actively managed FUM.	4.3%	More to do
Emissions reduction – intensity target Meet or exceed a 50% reduction in our WACI of financed emissions across our entire portfolio from our 2019 baseline.	50.7%	On track

Summary of emissions reduction progress toward interim 2030 WACI target

WACI for the Scheme reduced by a total of 50 tCO_2e/NZD mn revenue from our 2019 baseline to 31 March 2024 or 46.8%. Over the last 12 months we have seen a reduction of 9.7 tCO_2e/NZD mn revenue which is a 15% reduction in WACI for the year.

WACI for the BNZISL investment portfolio reduced by a total of 56 tCO_2e/NZD mn or 50.7% from the 2019 baseline. In the last 12 months there was a reduction of 11 tCO_2e/NZD mn revenue which is a 17.2% reduction in WACI for the year.

These significant reductions in emissions from our 2019 baseline mean we are close to meeting our interim 2030 WACI targets at the Scheme level and have met our targets at the BNZISL investment portfolio level, which can be attributed to the following:

- Divestment from coal mining and companies involved in oil and gas exploration and production from 2020 onwards (see our RI Policy for details).
- A significant reduction in WACI over the last 12 months driven by:
  - A reduction in the overall carbon intensity in our material sectors (from investee companies within those sectors).
  - Lower asset allocation to the utilities sector (one of our material sectors) as at 31 March 2024, which has a higher carbon intensity than other sectors.

As noted in the Limitations section above, using WACI as a measure of GHG emissions has certain limitations which will drive year on year variability in this metric. The WACI metric is sensitive to changes in company revenue (the denominator), i.e. a fall in revenue can increase WACI and an increase in revenue will see decreases in WACI without changes in underlying GHG emissions.

Next steps

Due to the significant reduction in WACI at the BNZISL investment portfolio level over the last 12 months we will review our interim 2030 target settings. This aligns with our review process outlined in our RI Policy and our commitment to transparency and accuracy in our target setting. This review, which we expect to publish in our FY25 CRD report, acknowledges the dynamic nature of both GHG emissions metrics and our responsible investment strategy. It allows us to refine our investment focus and enhance our ability to meet emerging challenges effectively.

Appendices

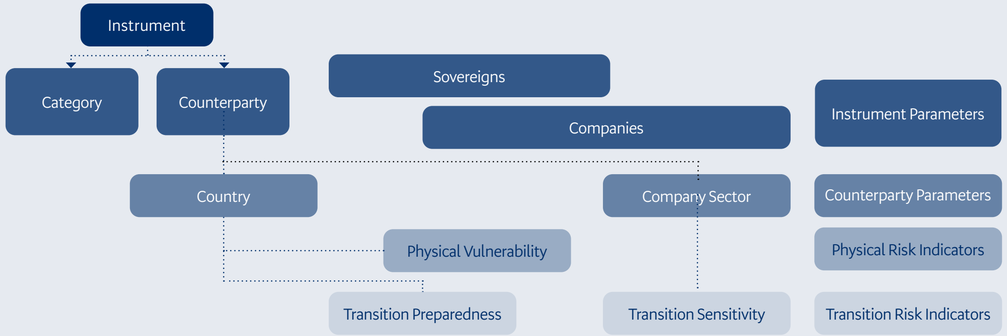
Appendix 1 – Risk Assessment Framework

In order to identify the physical and transition risks associated with each of our investee companies, we have mapped specific investee company attributes (by sector and country) to assessment frameworks: Notre-Dame Global Adaptation Index (ND GAIN), BGCS, and United Nations Environment Programme Finance Initiative (UNEP FI) report 'Beyond the Horizon' (discussed below). This type of climate-related risk assessment is a high-level assessment, which considers the transition and physical risks of the investee companies based on their country of incorporation and the sector (e.g. utilities) the investee company sits within.

In lieu of detailed information at an entity level, the data sources discussed below are adopted as proxy indicators of drivers of climate-related risk. The climate-related risk assessment for companies is a relative representation as opposed to an absolute view of risk. For example, the ND-GAIN Country Index score (discussed below) of a country can provide an indication of how vulnerable that country is to physical risk relative to the vulnerability of other countries. A score is applied to each investee company and its country of risk (discussed below) whereby a climate-related risk heat rating is derived from both physical and transition risk scores for each investee company.

The parameters applied to these assessments cannot include all climate-related risks and opportunities that an investee company or a country will face. As such, this does not present the full suite of climate-related risks facing BNZISL, the Schemes and the Funds that it manages. This risk assessment framework enables BNZISL to understand potential exposure to both physical and transition risks and undertake further assessment of investee companies. See our Risk Management section above for information on how this is monitored.

Figure A.1 – Components considered for assessing climate-related risk of individual Fund instruments



The ND-GAIN Country Index score is used as a proxy indicator of an investee company's vulnerability to climate change.

ND-GAIN Country Index

ND-GAIN Country Index score combines measurement of a country's current vulnerability to climate disruptions with an assessment of that country's readiness to leverage private and public sector investment for adaptive actions. The ND-GAIN score assesses the vulnerability of a country by considering six life-supporting sectors: food, water, health, ecosystem services, human habitat, and infrastructure. Each sector is in turn represented by six indicators that represent three cross-cutting components: the exposure of the sector to climate-related or climate-exacerbated hazards; the sensitivity of that sector to the impacts of the hazard and the adaptive capacity of the sector to cope or adapt to these impacts.

BGCS score has been adopted for the purposes of this assessment as an indicator of a country's transition risk. This measures a country's or region's progress in meeting the global goals set out in the Paris Climate Agreement. The score is relative, ranging from 0 to 10, where 10 is considered better.

BGCS score is composed of:

Carbon transition: Measures a country or region's historical, current, and forward-looking emissions performance.

Power transition: Measures a country or region's progress and future effort towards power sector decarbonisation.

Climate policies: Measures a country or region's progress on net zero target pledges, green debt issuance and renewable energy policy frameworks.

Ratings incorporated in the UNEP FI report 'Beyond the Horizon' [20] are applied to corporate sectors as a proxy indicator of transition risk.

[20] Beyond-the-Horizon.pdf (unepfi.org)

Limitations

UNEP FI report "Beyond the Horizon" ratings represent an aggregation of four risk factor pathways which represent financial pressures experienced by investee companies:

Incremental direct emissions costs: Change in the carbon price times scope 1 GHG emissions relative to baseline.

Incremental indirect emissions costs: Change in the cost of energy and non-energy production inputs relative to baseline.

Incremental low-carbon capital expenditure: Additional capital expenditure borne by the sector to transition to a low-carbon economy.

Change in revenue: Incremental price times demand in the transition scenario relative to baseline.

The risk assessment framework described above is an indicative assessment of potential climate risk based on a limited set of inputs acting as proxies for climate-related risks and opportunities. The actual climate risk associated with a particular investee company may vary significantly from the values ascribed. Key limitations to this assessment are as follows.

a. **Climate-related risk uncertainty.** Significant uncertainty surrounding the sensitivity of the climate to the concentration of atmospheric GHGs, and further uncertainty regarding the extent to which global efforts to reduce GHG emissions will evolve, significantly challenging the potential assessment of climate-related risks and the magnitude of the possible impacts that these may carry.

b. **Assessment granularity.** As noted above, this assessment is a high-level assessment. This approach, dictated by data and information availability, means that some investment characteristics relevant to climate-related risks are excluded, such as the bond maturity date or the CDP[21] score providing a carbon disclosure rating for companies.

c. **Proxies.** The indicators adopted in this assessment do not represent risk by itself. Rather, in lieu of actual assessments, they have been adopted as proxies of risk and opportunity (e.g. emissions intensity is not an assessment of transition risk instead it's an indication of what the level of transition risk might be).

d. **Scope of assessment.** The scope of risk in this assessment is limited to climate-related risks only. This means that the actual associated implications of climate-related risks for inter-related financial risks such as credit, liquidity and market are not directly assessed (although high-level assertions can be drawn from assessment results). Additionally, the assessment does not look to quantify the impact on instrument valuation.

e. **Relative.** As noted above, the assessment provides a relative view of risk – not an absolute view.

f. **Pace of change.** The nature of IPCC reports and other data sources upon which physical indicators are based are unlikely to incorporate the scientific community's most up-to-date understanding of climatic-related risks and potential impacts.

Appendix 2 – Scenario Analysis - Project Management Methodology

	Initiating	Planning	Executing	Monitoring	Closing
Objectives	Authorise new project	Plan the work to be executed	Direct and guide execution	Monitor and control project performance	End project
Outputs	Project charter Stakeholder identification Reading list curation	Project plan Focal question Boundaries of analysis	Scenario development workshop Scenario analysis workshop	Weekly meeting (led by project lead)	Closure report (signals to monitor, next steps)

[21] CDP stands for the Carbon Disclosure Project, which assesses the companies' plans to reduce their emissions.

Appendix 3 – Glossary

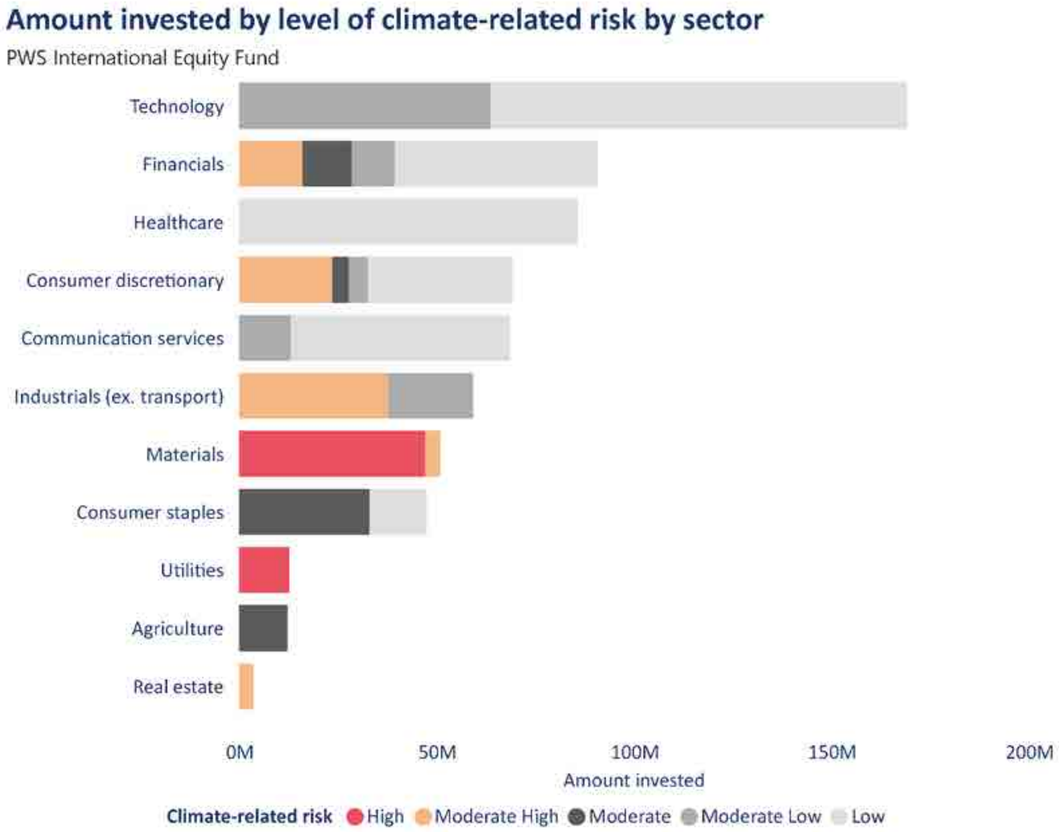
Key terms	Meaning
Actively managed investments	Actively managed means that specific investments are selected or traded with the goal of outperforming either the market or a benchmark.
Asset allocation risk	The risk that the allocation of a Fund's assets, across different asset classes, affects a Fund's returns. Funds that invest more in growth assets (such as equities) carry greater risk, but generally offer the potential of higher returns than Funds that invest more in income assets (such as cash or fixed interest).
Bottom-up approach	A bottom-up approach focuses on risks at an individual investee company level.
Capital Markets Assumptions (CMA)	Capital Markets Assumptions are the expected risk, returns, standard deviations and correlation characteristics at an asset class level, and are used as an input for making investment decisions including SAA.
Climate Change Commission (CCC)	The Climate Change Commission has modelled domestic emissions for potential futures based on net zero by 2050, too little too late and hothouse scenarios. The data modelled was used in the FSC scenario for fund managers.
Correlation	Correlation, in the finance and investment industries, is a statistic that measures the degree to which two securities move in relation to each other. Correlations are used in advanced portfolio management and are computed as the correlation coefficient, which has a value that must fall between -1.0 and +1.0.
Financed emissions	Financed emissions (sometimes referred to as invested emissions) are GHG emissions attributable to financial institutions due to their involvement in providing capital or financing to the original emitter. Financed emissions are included within Category 15 'Investments' of the GHG Protocol Standards. BNZISL's financed emissions are scope 1 and 2 emissions (and scope 3 emissions, where available and relevant) of the investee companies across the BNZISL investment portfolio. (See below for more information on scope 1, 2 and 3 emissions).
Global Change Analysis Model (GCAM)	GCAM is an integrated, multi-sector model that explores both human and earth system dynamics. This integrated assessment model is used by NGFS for developing their scenarios.
Greenhouse gas (GHG) emissions: scope 1, 2, and 3	Greenhouse gas emissions are divided into three distinct categories: • Scope 1 refers to emissions that are directly released into the environment by a business, for example, from vehicles, or running boilers on the premises. • Scope 2 includes indirect emissions, for example, emissions related to electricity that is purchased to run a company's premises. • Scope 3 comprises all emissions both upstream and downstream within a company's value chain. This includes a wide range of emissions produced outside the company, such as transportation, distribution, waste disposal, product usage, and employee commuting.

Key terms	Meaning
International Energy Agency (IEA)	The IEA developed global scenarios aligned to net zero, too little too late and hothouse scenario archetypes. The scenarios are specifically looking at energy supply and demand, for utilities, transport and other relevant sectors: • STEPS (Stated Policies Scenario): assumes implementation of current government policies, and commitment to reduce further GHG emissions. • APS (Announced Pledges Scenario): assumes policy implementation as in STEPS, and fulfilment of pledges currently not yet supported by policies. • NZE (Net Zero Scenario): assumes implementation of IEA pathway to net zero emissions by 2050, while minimising cost.
Investee company	An investee company is an entity that the Funds within the Scheme are directly invested in.
Liquidity risk	The risk that investments of a Fund cannot be sold at the desired time or without having a significant impact on their value. This risk is more likely to occur during stressed market conditions.
Manager risk	This is the risk that decisions made by us, and the underlying investment managers we choose, may either positively or negatively affect the return on investments.
Market risk	The risk that the value of a Fund changes due to factors that affect a particular financial market or markets. This could include changes in inflation, interest rates, credit availability, currency exchange rates, monetary policy by central banks, taxation and regulation, global politics, or investor sentiment.
ND-GAIN Country Index	An annual country index provided by the Notre Dame Global Adaptation Initiative (ND-GAIN) summarises a country's vulnerability to climate change and other global challenges in combination with its readiness to improve resilience. It aims to help governments, businesses and communities better prioritise investments for a more efficient response to the immediate global challenges ahead.
Net zero	Global net zero emissions describe the state where both the emissions of carbon dioxide due to human activities and the removal of these gases are in balance with each other (on a net basis) over a given period. For investee companies, a net zero target (aligned to SBTi targets) corresponds to reducing all available emissions to zero, prior to using allowable offsets.
Network for Greening the Financial System (NGFS)	The Network for Greening the Financial System is made up of a group of central banks and supervisors, including the Reserve Bank of New Zealand, which aims to contribute towards the development of climate-risk management.
Partnership for Carbon Accounting Financials (PCAF)	The Partnership for Carbon Accounting Financials is an industry-led initiative to enable financial institutions to consistently measure and disclose their GHG emissions financed by their loans and investments. These emissions are also called financed emissions, invested emissions, or portfolio climate impact emissions.
Passively managed investments	Passively managed means that investments are purchased or sold to mirror the holdings of an index.

Key terms	Meaning
Physical risk	Physical risk includes the economic activities impacted by the physical aspects of climate change due to their significant dependence on the natural environment. This can manifest itself through either an acute event (such as flooding or wildfires) or chronic or longer-term shifts in climate (such as increase in temperature). Chronic risks arise from incremental changes and usually take longer to materialise than acute risks, with impacts likely to be much more pervasive.
Risk premium	A risk premium is a measure of excess return that is required by an individual to compensate for being subjected to an increased level of risk.
Science Based Targets initiative (SBTi)	The Science Based Targets initiative is a corporate climate action organisation that enables companies and financial institutions worldwide to play their part in combating the climate crisis through target setting guidance and globally recognised target validation.
Standard deviation	Standard deviation is a statistic term that describes measuring the dispersion of a dataset relative to its mean and is calculated as the square root of the variance. In finance, it is often used as a measure of a relative riskiness of an asset. A volatile stock has a high standard deviation, while a stock with low volatility will have a lower standard deviation.
Stewardship Code Aotearoa New Zealand	The Stewardship Code Aotearoa New Zealand is an industry-led framework that supports investors to partner with companies to create long-term value by responsibly managing their investments. It sets out how institutional investors can best work with companies to minimise risk and maximise resilience in order to increase environmental, social, and economic value. (More info: www.stewardshipcode.nz)
Strategic Asset Allocation (SAA)	Strategic Asset Allocation is a portfolio strategy. The investor sets target allocations for various asset classes and rebalances the portfolio periodically. The portfolio is rebalanced to the original allocations when they deviate significantly from the initial settings due to differing returns from the various assets.
Taskforce for Climate-related Financial Disclosures (TCFD)	The G20 Taskforce for Climate-related Financial Disclosures, which released initial recommendations in 2017, and which were the basis for the Aotearoa New Zealand Climate Standards.
Top-down approach	A top-down approach focuses on high-level themes and sectors in assessing risks.
Transition risk	Transition risk materialises through a company's and/or country's readiness to transition to a low-carbon economy. These include policy, legal, technological, and market changes in response to mitigating and adapting to climate change. Carbon-intensive companies are more likely to be impacted by the transition to a low-carbon economy; however, the demand for raw materials and new climate regulations will mean almost every sector and geography will be impacted.
Value chain	For a fund manager, the value chain covers the product and service development, investment management, administration, custody, distribution and advice, tax, and other functions (such as legal).

Appendix 4 – Climate Risk Heat Maps at Fund Level

Figure A.2 – Climate-related risk by sector and region for the Private Wealth Series International Equity Fund



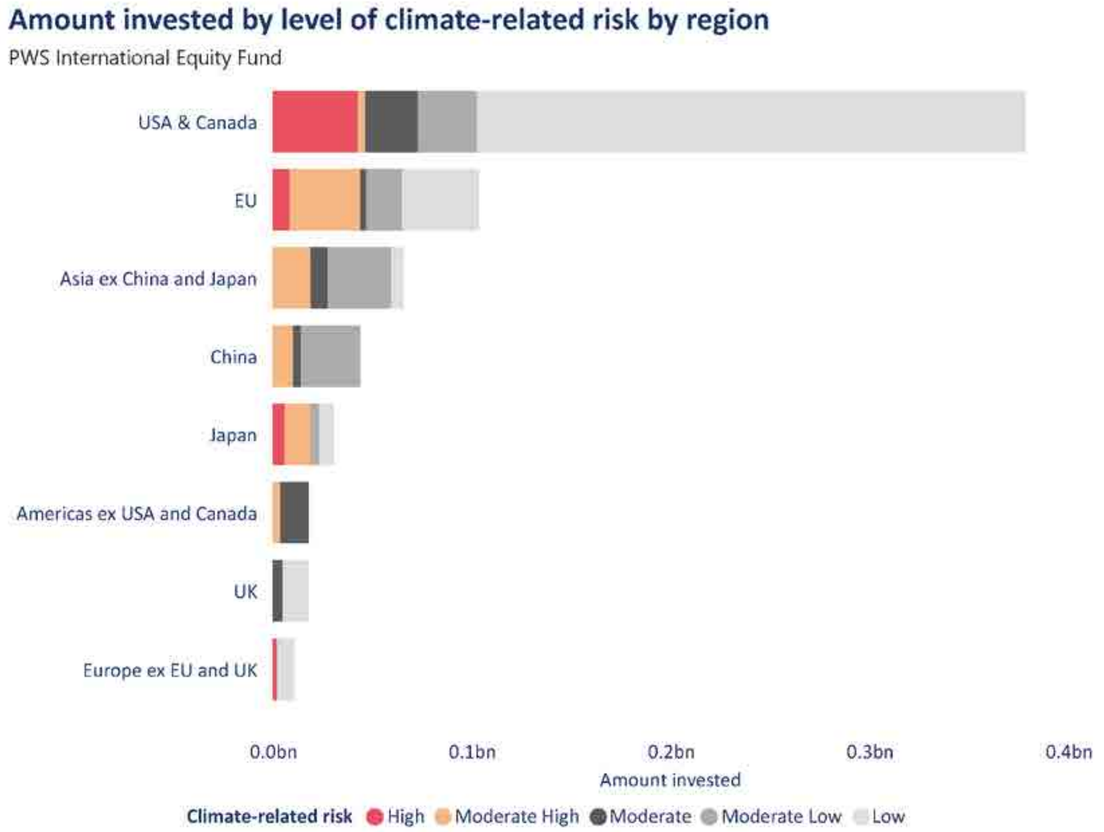
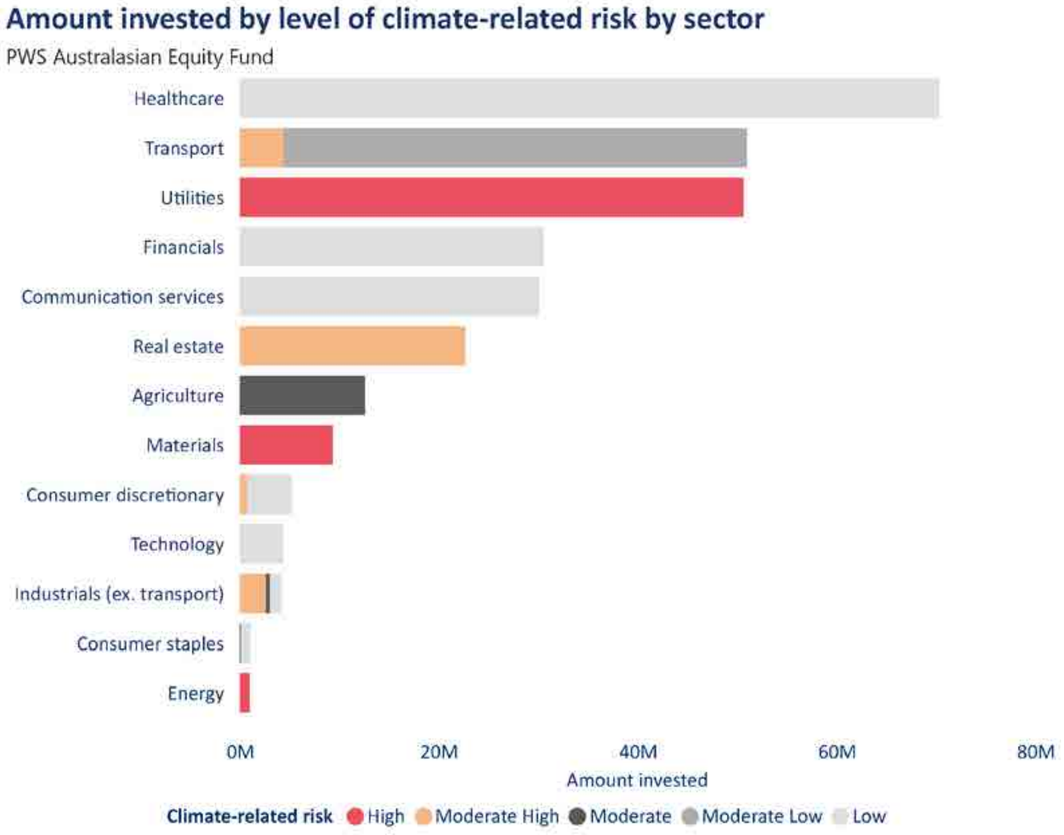


Figure A.3 – Climate-related risk by sector and region for the Private Wealth Series Australasian Equity Fund



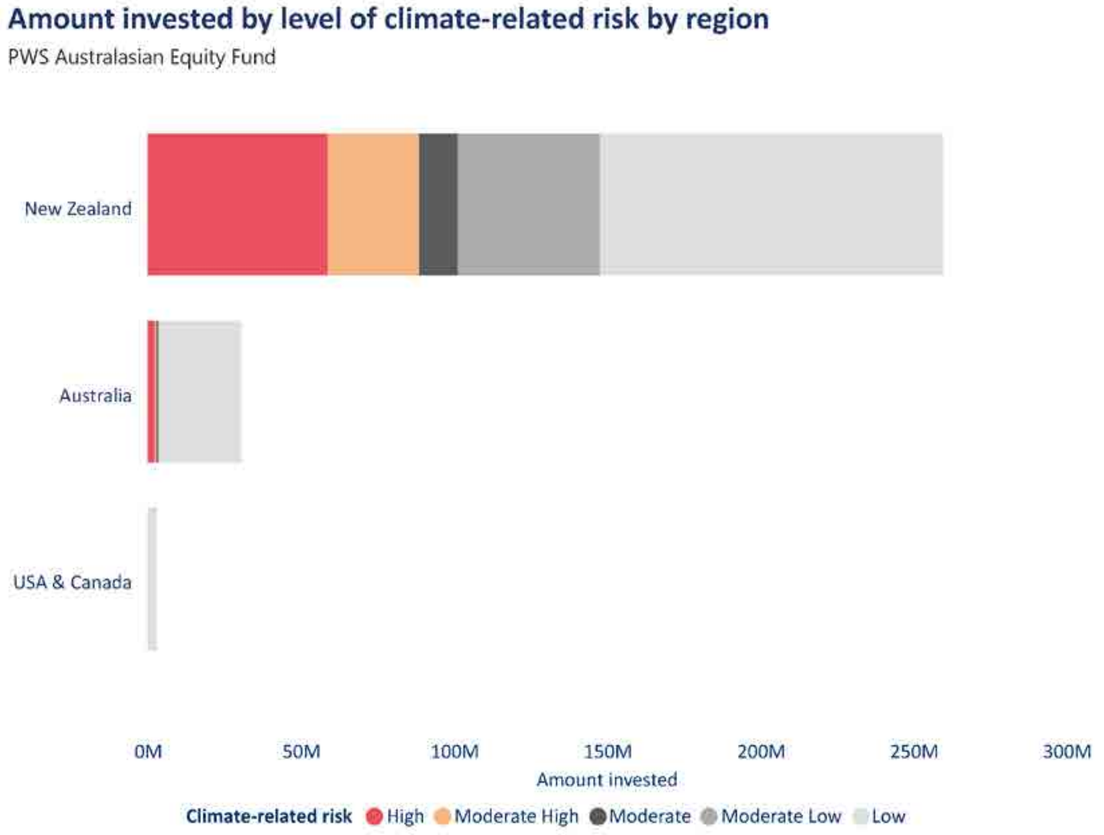
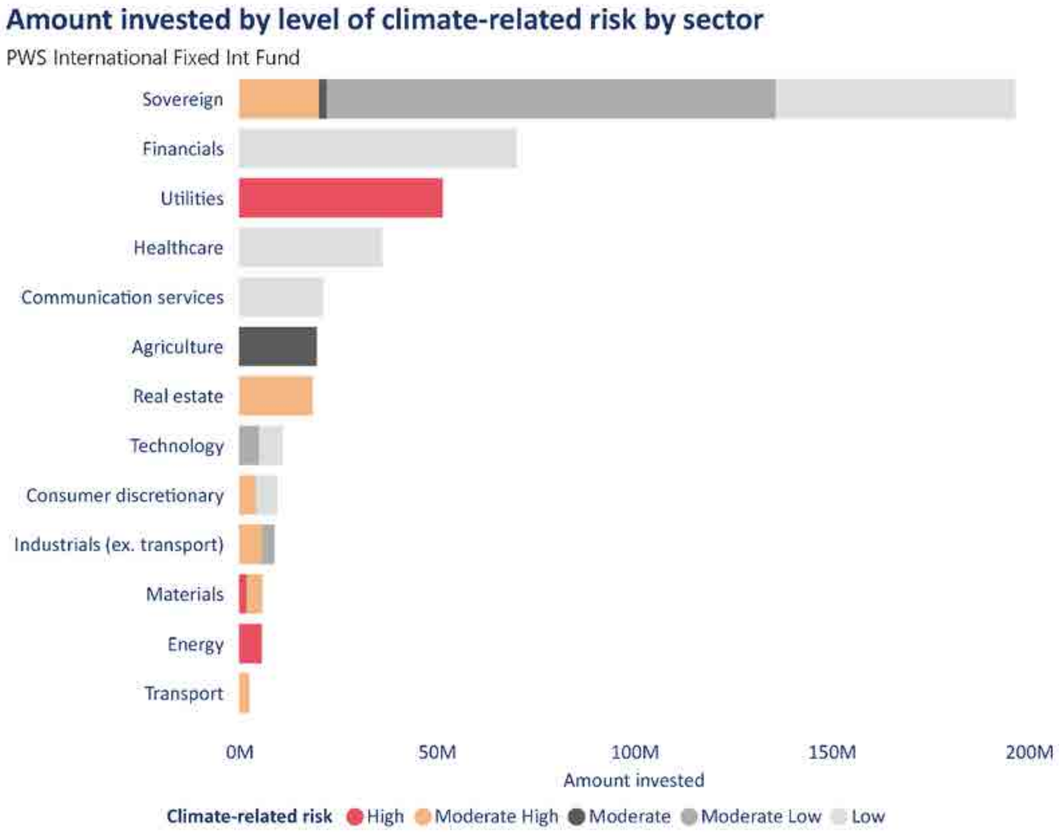


Figure A.4 – Climate-related risk by sector and region for the Private Wealth Series International Fixed Interest Fund



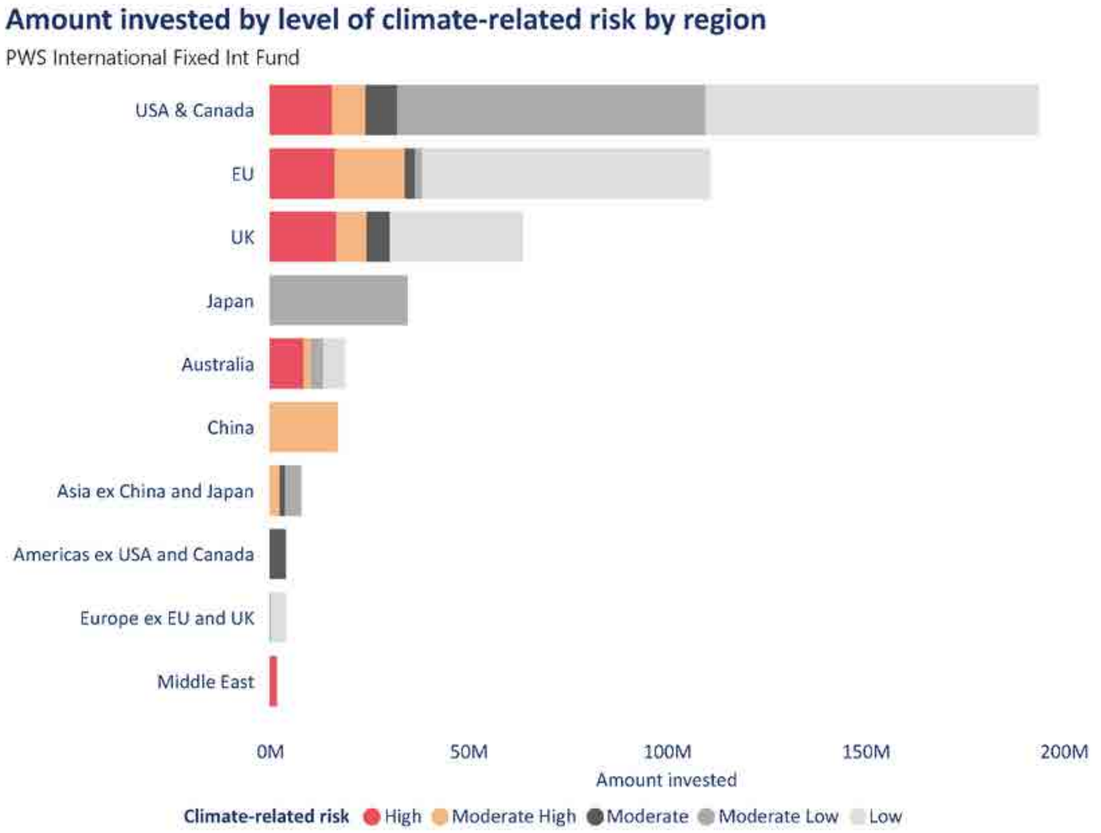
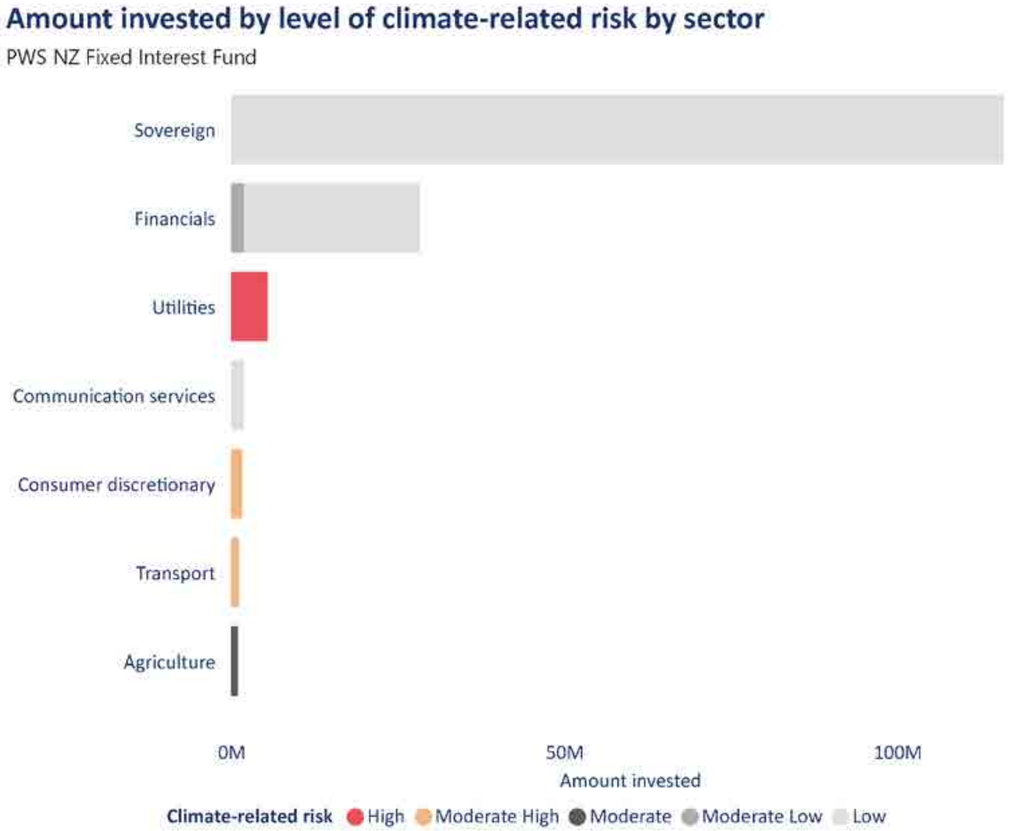


Figure A.5 – Climate-related risk by sector and region for the Private Wealth Series New Zealand Fixed Interest Fund



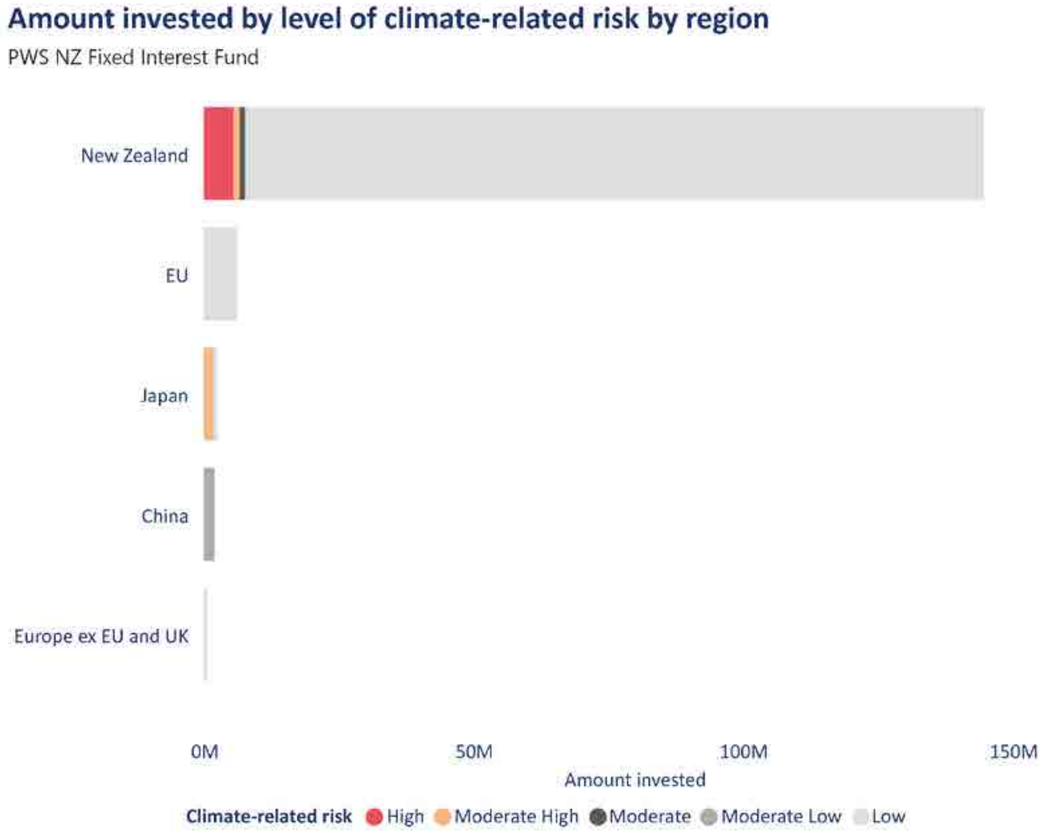
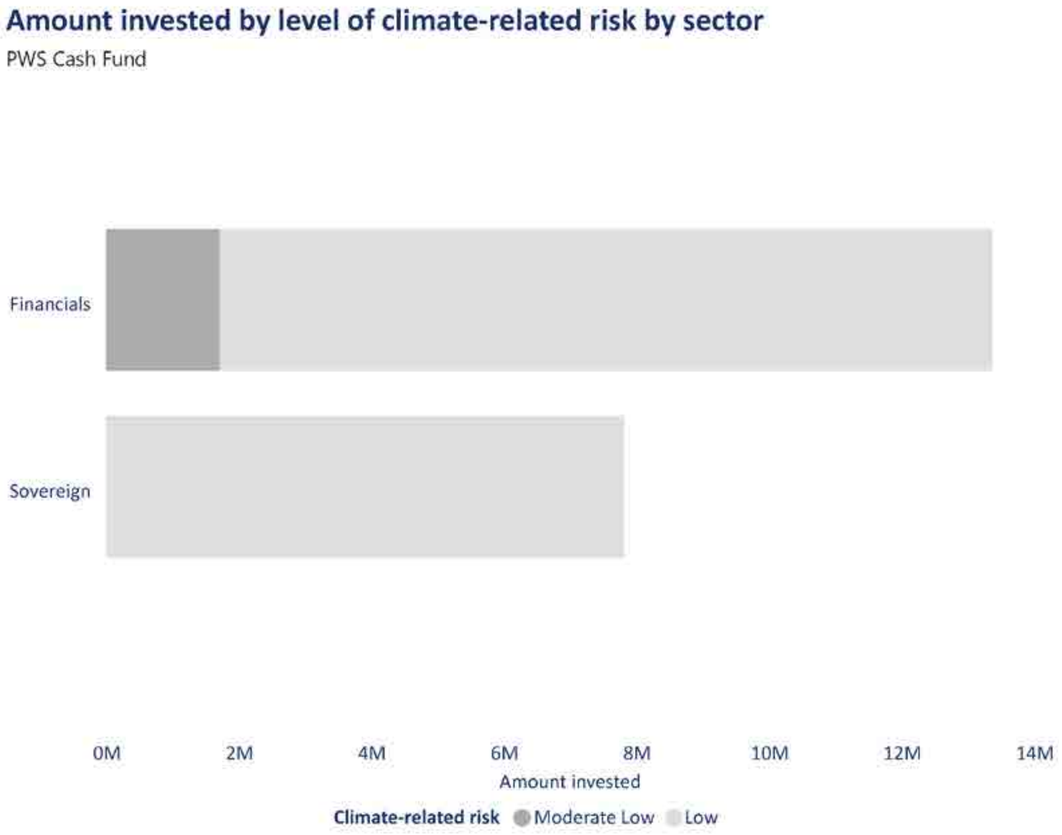
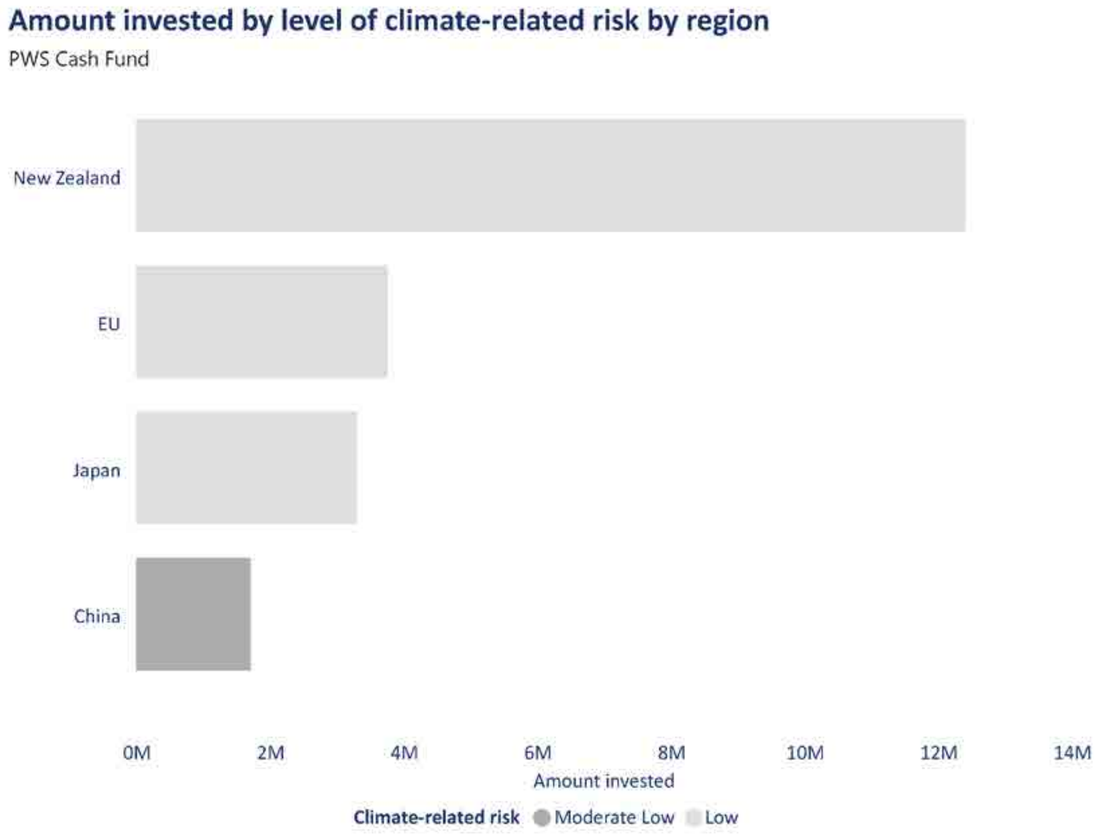
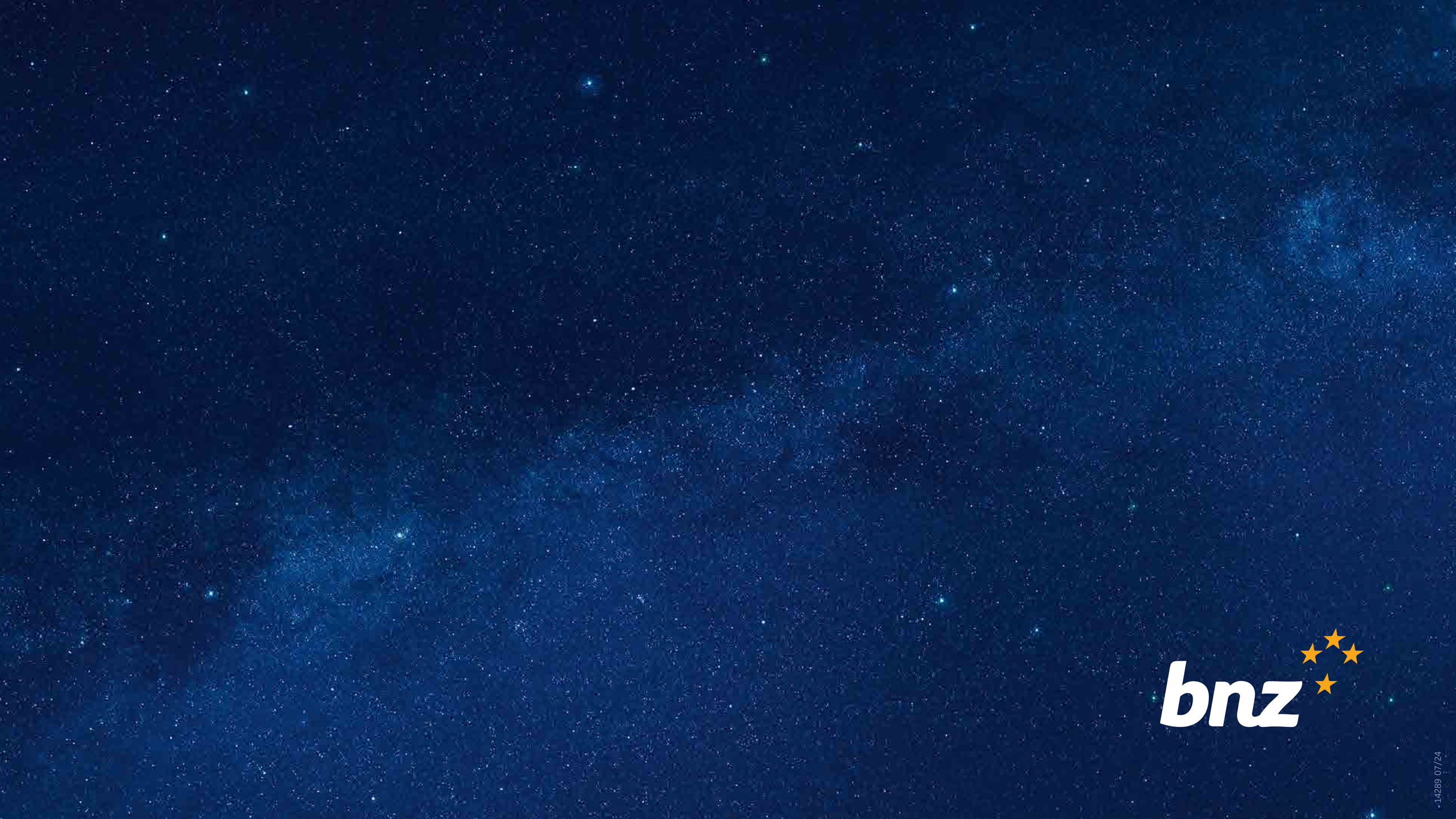


Figure A.6 – Climate-related risk by sector and region for the Private Wealth Series Cash Fund







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