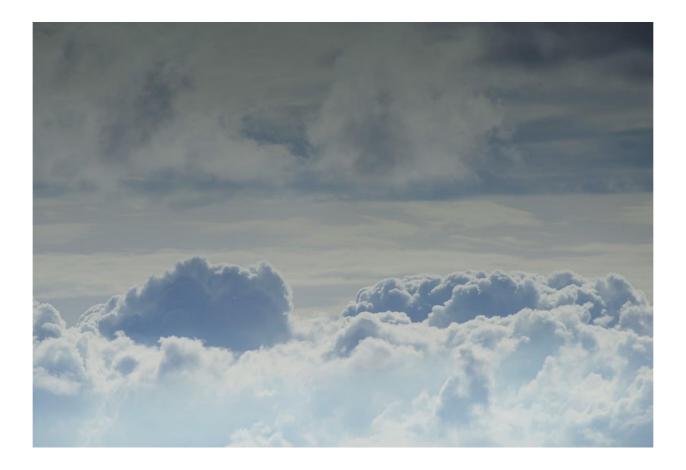


Statement of Investment Policies, Standards and Procedures

9 August 2023



GOVERNMENT SUPERANNUATION FUND AUTHORITY

Statement of Investment Policies, Standards and Procedures

This document is titled Statement of Investment Policies, Standards and Procedures (**SIPSP**) and is dated 9 August 2023 and supersedes all previous versions. An electronic copy is available on our website - *www.gsfa.co.nz*.

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1 Introduction

Description

The Government Superannuation Fund Authority (the **Authority**) was established in 2001 to manage and administer the assets of the Government Superannuation Fund (**GSF** or the **Fund**) and the Government Superannuation Fund Schemes (**GSF Schemes**) in accordance with the Government Superannuation FundAct 1956 and subsequent amendments (the **GSF Act**). The Authority is an autonomous Crown entity under the Crown Entities Act 2004 (**Crown Entities Act**).

Structure

Section 15L of the GSF Act requires the Authority to establish investment policies, standards, and procedures (**SIPSP**) while Section 15M specifies what must be contained within any associated statements. This SIPSP addresses the requirements of section 15M and is structured as follows to reflect the approach employed to manage the Fund's investment programme.

Section of this SIPSP	Relevant clause(s) of Section 15M of the GSF Act
Introduction	
Governance	(f) the fund management structure
Investment beliefs	
Investment objective	(e) balance between risk and return
Investment strategy	(a) classes of investments and selection criteria
Responsible investment	(d) ethical investment
	(i) retention, exercise or delegation of voting rights
	(k) prohibited or restricted investments
Risk management	(g) use of futures, options and other derivatives
	(h) management of various financial risks
Review and	(b) performance benchmarks
monitoring	(c) reporting investment performance
procedures	(j) valuation of investments not regularly traded
Appendix	(k) investment constraints or limits

Purpose

This SIPSP records the arrangements set by the Authority's Board (the **Board**) for the governance and management of the investment assets held by the Fund, including fiduciary roles and responsibilities, the decision-making processes and the policies and procedures for management of Fund.

The Authority's investment responsibilities under the GSF Act are to:

- invest the Fund on a prudent, commercial basis, in a manner consistent with best practice portfolio management
- maximise returns without undue risk to the Fund as a whole
- avoid prejudice to New Zealand's reputation as a responsible member of the world community.

The Authority meets these responsibilities by developing and implementing:

- principles for best practice portfolio management
- an investment strategy centered on maximising return over the long term within a defined risk limit
- responsible investment policies to meet the requirement to avoid prejudice to New Zealand's reputation as a responsible member of the world community.

2 Governance

Policies

Preamble

The Authority's powers and discretions are defined in the GSF Act. The Board is the governing body of the Authority and is responsible for all decisions relating to the Fund.

The Board has all the powers necessary for managing, directing and supervising the management of the business of the Authority and the Fund.

The Board's governance arrangements are designed to achieve best-practice portfolio management by establishing good decision-making processes, defining fiduciary roles and responsibilities, and providing effective policies and procedures for management of the *Fund*.

The Authority will maintain a Corporate Governance Statement, which establishes the Board's responsibilities, practices and structure in relation to the Authority's statutory obligations. In satisfying its responsibilities, the Board may delegate decision making and implementation to

third parties as it sees fit.

Management of all assets, except cash held for operational liquidity purposes, is to be outsourced to third party managers (investment managers) and a custodian.

Investment mandates with investment managers shall include guidelines setting out eligible investments, performance criteria, constraints and exposure limits, including use of derivatives and reporting requirements.

Investment managers require specific written authorisation from the Authority to invest outside of the prescribed permitted investments. The Board will consider such investments as they arise on application from the investment manager.

A custodian is to be appointed to separate investment decision making (undertaken by the investment managers) from the holding of assets and securities, transaction settlement, recording and reporting of investment activities (undertaken by the custodian).

All the assets of the Fund, apart from cash holdings required for operational liquidity purposes, are to be held in custody unless specifically authorised by the Board.

Standards

Selection of the custodian and investment managers is made in accordance with the Authority's policy on procurement of services.

Selection of the custodian and investment managers is contestable and generally to be conducted through a request for proposal and interview process unless specific circumstances warrant a different approach.

Investment managers are selected after having been subject to appropriate due diligence, which takes into account, among other criteria specific to the role:

- best-practice portfolio management
- the skills and experience of the manager compared to peers
- the substance and viability of the manager
- the costs that can be expected to be incurred
- the potential for cost savings and other efficiency gains
- the existence of appropriate risk management procedures.

This process ensures that the investment managers employed by the Fund have the requisite operational capabilities and are best placed to support the Fund in achieving its investment objectives.

Procedures

The Board

The Board meets its responsibilities under the GSF Act by developing and implementing principles for best-practice portfolio management which it interprets as:

- having a clear investment objective that reflects its statutory responsibilities and desired outcomes
- maintaining a sound investment strategy consistent with the investment objective and the Authority's investment beliefs
- having strong governance with clear assignment of responsibilities that promotes accountability, clear reporting and effective communication with the Fund's stakeholders
- ensuring cost-effective management of investments by engaging an external custodian of its assets and investment managers with the requisite skills and alignment of interests with the Authority and monitoring their performance closely
- sharing relevant knowledge and resources with other Crown financial institutions, peer funds and experts.

The Board has established an Investment Committee of the Board to review significant investment matters prior to their consideration by the Board and review investment procedures in accordance with a cycle specified in the SIPSP or otherwise approved by the Board. The Investment Committee has written terms of reference and its performance is reviewed annually.

The Authority and the Board of Trustees of the National Provident Fund have formed a joint venture company, Annuitas Management Limited (**Annuitas**), to engage staff (**Management**) to provide management services to each organisation. The Management Services Agreement between the Authority and Annuitas delegates authority to Management to enable it to carry out the day-to-day activities of the Authority and the Fund. This includes the management of functions contracted out to third parties for investment management, custody, scheme administration, legal, tax and advisory services.

The Board appoints investment managers, custodians and external investment advisers and reviews their performance regularly.

Management

Management is responsible for:

- identifying and implementing appropriate investment strategies for the Authority to meet its obligations and objectives under the GSFAct
- identifying and monitoring investment managers, custodians, and external investment advisors
- varying the Fund's asset allocation according to prescribed criteria and within prescribed limits pursuant to a dynamic asset allocation (DAA) programme
- implementing the Board's rebalancing policies and providing reports to the Board on monthly rebalancing and DAA decisions
- reporting investment performance quarterly to the Board including aggregate returns and returns analysed by asset class and by investment manager. In each case actual returns are compared to benchmarks, expected risk measures and any active return targets. Summary reports of aggregate and asset class returns are provided monthly. Peer-relative performance of the Fund and of its investment managers are also reported to the Board annually
- implementing the Board's responsible investment policies, monitoring investment managers in this regard, and providing reports on responsible investment issues to the Board regularly
- managing cash required for operational liquidity purposes
- liaising regularly with the Treasury which acts on behalf of the Minister of Finance.

Investment managers

Each investment manager is contractually mandated to invest in a defined range of eligible investments, which may cover one or more of the Fund's asset classes and is subject to limits of investment risk which are defined in the respective agreements with each investment manager. In the case of segregated mandates this involves investment managers instructing the custodian to buy or sell securities on behalf of the Fund. In the case of collective investment vehicles (**CIV**) an investment manager arranges for the purchase and sale of securities in line with the relevant CIV's mandate.

Investment managers are delegated responsibility to exercise voting rights on behalf of the Authority, but the Authority retains the ultimate voting right. Investment managers are required to vote in the interests of the Fund and their voting record is monitored.

NZ investment managers are required to advise the Authority of their voting intent where the issue is likely to be publicly contentious, or give rise to a conflict of interest, or against the recommendation of an approved proxy voting service. In such cases, Management may direct the investment managers' votes under delegation from the Board. Investment managers' voting record is summarised on the Authority's website every six months.

Where applicable, monthly or quarterly reports to the Authority from the investment managers include:

- details of securities held
- a review of the performance and an analysis of performance factors
- investment philosophy and strategy (if changed)

- · compliance with the terms of the investment contract
- an annual external audit report.

Investment managers meet with Management, on behalf of the Authority, at least annually.

Details of the current investment managers can be found on the website - www.gsfa.govt.nz.

Custodian

The Fund's custodian is contractually required to provide the following services:

- safekeeping of assets
- trade processing and settlement
- monthly accounting and valuation reporting
- monthly investment performance measurement reporting and comparisons with benchmarks
- monthly compliance reporting
- corporate actions, income collection and withholding tax reclaims
- securities lending.

The custodian provides monthly reports of the Fund's investments as a whole, each asset class and each investment manager to enable monitoring and review of the Fund's and investment managers' performance. Those reports include:

- the cash position of each portfolio
- accounting matters including portfolio valuation
- reconciliation of portfolio values and cash flows with the investment managers
- investment performance measurement and comparisons with benchmarks
- tax reclaims
- reports of compliance with mandate-specific restrictions on separately managed portfolios.

Investment Advisors

External investment advisors provide the Board and Management with independent comment on key aspects of the Authority's investment programme. This includes capital markets' assumptions and qualitative and quantitative information related to strategy and investment managers.

3 Investment Beliefs

The Authority's investment beliefs provide a foundation for its investment strategy. They represent the Authority's views about the sources of investment return and risk and how these can be captured cost effectively, having regard to the Authority's unique circumstances:

- the nature of the GSF's pension obligations allows the Fund to take a long-term view for its investment strategy and tolerate short-term volatility in market prices and a degree of illiquidity
- to promote the Crown's interests, the Fund's investments focus on returns after foreign taxes but before NZ taxes
- implementation of the investment strategy is outsourced to investment managers. The Authority determines investment strategy and selects and monitors the investment managers.

The Authority's investment beliefs are set out below.

Core Beliefs

Risk

Higher returns usually require us to accept higher risk of loss and/or variability of returns.

Time Horizon

As a longer horizon investor, we believe we are better able to absorb the volatility associated with higher returns than short-term investors.

Diversification

We believe on average over time spreading investments among different sources of return improves the quality of our portfolio.

Asset Allocation

Our allocation to global equities is the largest determinant of the portfolio's risk and return.

Active Management

Selective active management can add value to the Fund.

Ethical/responsible investment

Environmental, social and governance (**ESG**) factors should be considered from both an investment and reputational perspective.

Climate-related risk

Climate change presents significant investment risks and opportunities. In addition, we have a responsibility to help limit global warming.

Oversight

We believe a good governance framework promotes improved investment outcomes for the Fund.

Implementation

We believe managing alignment of interests, fees and costs is a critical component of Fund outcomes.

4 Investment objective

Policies

Preamble

The Authority is required to maximise the returns of the Fund without undue risk. It takes a long-term view when developing its investment strategy because the Fund is expected to pay entitlements for approximately 50 years.

It is increasingly common practice for funds to set objectives at least in part relative to a reference portfolio, which is a simple, low-cost, notional portfolio that would be expected to achieve the investment objective by investing only in major, liquid, public markets. This helps define the strategy's risk and is used to assess the contribution to the Fund's performance of decisions by the Fund's investment managers.

The Authority will adopt an investment objective and strategy that involves taking additional investment risk to improve the Crown's position compared to investing solely in New Zealand Government Bonds.

The Authority will benchmark its investment strategy against the return on New Zealand Government Bonds and a Reference Portfolio (**Reference Portfolio**).

Standards

The Authority interprets the Investment Objective as to maximise excess returns relative to New Zealand Government Bonds (before NZ tax) without undue risk of underperforming bonds, measured over rolling ten-year periods. The expected ten-year excess return depends partly on the risk taken by the Authority. It is estimated annually and published in the Authority's Statement of Performance Expectations. New Zealand Government Bond returns are benchmarked by the S&P NZX NZ Government Bond Total Return Index.

The Fund's Reference Portfolio reflects the Authority's risk appetite, provides a benchmark to measure the Authority's performance over periods less than 10 years, and creates a framework for accountability and performance measurement. It is designed to return more than New Zealand Government Bonds while meeting the Fund's risk appetite. The Board has adopted the Reference Portfolio set out in the **Appendix Table 1**.

Procedures

While the Fund's focus is on long-term risks and returns, they are influenced to some degree by prevailing market conditions. Thus, the Authority estimates them regularly and documents them in the four-yearly Statement of Intent and the annual Statements of Performance Expectations.

The long-term expected excess return of the Reference Portfolio is published in the Authority's Statement of Intent and annual Statement of Performance Expectations and will vary over time.

In addition to estimating risk of underperforming New Zealand Government Bonds over the next 10 years, the Authority uses a number of short-term and long-term risk metrics to

gauge 'undue risk' and define its risk appetite. These include comparing the Fund and the Reference Portfolio using standard measures of fund volatility and value-at-risk, sensitivity to global equity market returns, expected returns under various macro-economic scenarios, and performance in periods of severe market stress, such as the worst historical rolling four quarters.

The Authority's risk appetite measures are set out in **Appendix Tables 2A and 2B**.

5 Investment strategy

Policies

Preamble

The investment strategy adopted by the Authority establishes a Reference Portfolio, which is a default portfolio consistent with the risk limit, then aims to outperform the Reference Portfolio on a net-of-fees basis in three ways:

- taking exposure to sources of return not represented in the Reference Portfolio that are considered to offer systematic reward for bearing risk of loss. These alternative sources of return, which are referred to as "alternative risk premia" (or 'beta'), include illiquidity, and insurance-linked risks
- capturing returns attributable to investment managers' skill rather than systematic risk bearing (ie 'alpha')
- dynamically adjusting the Fund's exposure to the asset classes to which it is exposed.

Strategies intended to help the Fund outperform its Reference Portfolio must be approved by the Board.

The Fund's target allocation must be approved by the Board. The current target allocation is set out in **Appendix Table 3**.

Dynamic Asset Allocation (**DAA**) decisions may be determined by Management within limits approved by the Board. The limits that asset classes may be tilted away from their target allocation are shown in **Appendix Table 4**.

Standards

The asset classes approved by the Authority for inclusion in the Fund are:

- equities, comprising equity securities and securities convertible into equities including partly paid ordinary and preference shares
- property, comprising land and premises built on land and holdings in entities that invest principally in land and premises
- fixed interest, comprising interest-bearing securities issued or guaranteed by sovereign governments and agencies and issued by non-sovereign issuers
- cash and short-term securities, comprising NZ and foreign currency cash and interest- bearing securities with less than one year to maturity
- commodities, comprising futures contracts traded on recognised public exchanges
- insurance-linked assets, comprising securities providing exposure to natural catastrophe risks and longevity (life settlement) risks; and
- forward foreign currency contracts for the purposes of offsetting foreign currency exposures arising from international assets to achieve the Fund's strategic net exposure and as a value adding return source in the Authority's DAA programme.

The Fund includes a strategic net foreign currency exposure in both its Reference and actual portfolios. The actual exposure may vary from the Reference Portfolio's weighting by varying the extent to which it is offset (hedged) in accordance with the limits specified in **Appendix Tables 4-5**.

The Fund may invest in these asset classes through direct ownership of the assets, through collective investment vehicles (**CIVs**) that hold the assets (subject to section 15K of the GSF Act which prohibits the Fund having a controlling interest) or through derivative securities, such as futures, forward contracts, options and swaps. Asset classes or strategies that have not been approved by the Authority are not permitted to form part of the Fund's asset allocation.

Procedures

The Authority manages the Fund to its target allocation that incorporates alternative risk premia and skill-based strategies and is expected to be more efficient than the Reference Portfolio (ie improve risk-adjusted returns after fees and foreign tax).

The selection of individual investments within the various asset classes is delegated by the Authority to investment managers selected for their expertise in particular investment disciplines. In general, investment managers invest the Fund in accordance with contractual mandates that specify authorised investments and risk limits. In some cases, the investment is via a CIV whose investment mandate is consistent with the Fund's objectives.

The Fund's investments are generally traded on recognised public exchanges but may be traded privately, subject to any limits approved by the Board.

The hedge ratio for international equities is varied to deliver the Fund's desired total foreign currency exposure, taking into account any currency hedging of other asset classes and any DAA tilts.

Implementation of significant asset allocation changes or the addition of new asset classes may include staged entry or exit to limit risk.

From time to time the Authority may move allocations in response to relative valuation signals to add returns. Such deviations are limited to ensure the investment objective of the Fund is not compromised.

DAA tilts are implemented by the physical movement of assets (selling the asset to be underweighted and buying the asset to be overweighted) or via derivatives where there is a well-developed market. Management of derivatives is undertaken though an overlay account managed by a third-party manager. In the case of currency tilts, forward currency contracts and basis swaps are used as for normal hedging. These decisions are reported to the Investment Committee and to subsequent Board meetings and their investment performance impact is reported monthly by the custodian.

6 Responsible Investment

Policies

Preamble

In addition to maximising return without undue risk, the Authority is required to avoid prejudice to New Zealand's reputation as a responsible member of the world community, follow best practice portfolio management and to have an ethical investment policy. These requirements are addressed by the Authority in terms of its Responsible Investment (**RI**) policies.

Our RI policies address activities that are illegal or contrary to international agreements to which NZ is a party. They extend beyond that to consider activities that are inconsistent with the Authority's ethical standards, notably severe environmental damage, bribery and corruption and human rights abuses.

We believe ESG factors that are financially material will be reflected in share prices because investors recognise them as indicators of risk or quality. Positive ratings on ESG factors are normally associated with better-run companies and higher company value. Anticipating changes in material ESG factors for specific companies is a potential source of additional return for active managers. ESG factors also present reputational risks for the Authority, which must be managed along with financial objectives.

The Authority is a signatory to the Principles for Responsible Investment and will give effect to its obligations as a signatory through integration of environmental, social and governance considerations in its investment strategy for the Fund.

On climate change, we expect our investment managers to have regard to both the immediate risks surrounding transition to a lower-carbon world, through changes in consumer preferences and government policies to limit emissions, and the longer-term risks of global warming.

Aside from the investment implications of climate change, the Authority has committed to align its portfolio with internationally agreed paths to a lower carbon world.

Standards

The Authority's investment managers are charged with maximising investment returns relative to a representative market benchmark. We expect our active managers to integrate material ESG and climate-related factors in their investment decision-making. How that is done varies but should be consistent with the manager's investment style.

Lowering exposure to greenhouse gas emissions will require changes to some managers' investment mandates, benchmarks or constraints on their portfolio holdings.

The Authority encourages active engagement with companies by its managers and prefers engagement with companies that that breach its RI standards. But it will exclude companies where engagement is unlikely to be effective due to the context of the company's operations or a lack of responsiveness from the company to the issue.

The Authority's managers have responsibility for its proxy voting because we consider that is a proper responsibility of active managers and they can be more effective. All managers must exercise our voting rights.

In determining which companies to exclude, the Authority takes into account:

- New Zealand law
- international conventions to which New Zealand is a signatory
- significant policy positions of the New Zealand Government
- · impact of exclusion on expected returns of the Fund
- · actions of our peers
- severity of breach/action
- likelihood of success of alternative courses of action (such as engagement).

The Fund excludes investments in the government bonds of any nation state where there is widespread condemnation or sanctions by the international community and New Zealand has imposed meaningful diplomatic, economic or military sanctions aimed at that government.

Procedures

The Authority monitors the ESG characteristics of the portfolio using managerprovided and third-party data but we do not direct our managers on how to manage ESG factors, apart from specific exclusions.

We evaluate managers' investment processes in terms of how they generate investment value and integrate ESG considerations.

The Authority collaborates with other investors to engage with companies that breach its standards and we exclude them when engagement is unlikely to improve outcomes.

The Authority will instruct its investment managers to limit exposure to carbonintensive investments to align with the New Zealand Government's policies to achieve net zero global emissions by 2050.

The Authority will also consider investment in strategies specifically targeting solutions to climate risks, such as alternative technologies and carbon capture. We expect most of those solutions, however, to be developed by companies in our existing public and private equity universe.

In some cases, the Authority may direct investment managers with respect to certain investments where ESG considerations are sufficiently important to over-ride purely investment-driven factors. This may be on how to vote our shares or, more typically, to exclude the securities entirely.

Effective engagement with companies on ESG issues requires a substantial commitment of time and resources. Aside from relying on its investment managers, who typically represent a much larger investor clientele, the Authority has a collaborative agreement with the Guardians of New Zealand Superannuation Fund (**NZ Super**) and the Accident Compensation Corporation, which have similar RI obligations. All are signatories to the international Principles for Responsible Investment.

The collaborative agreement among CFIs encompasses policy development, identification and analysis of high RI risks, co-ordination of engagement and exclusion activities, engagement of research providers, research sharing and communications. The parties to the agreement meet regularly to review current engagements and exclusions, high-risk securities, research and policy development.

With the assistance from the NZ Superannuation Fund, the Authority implements its RI policies by:

- monitoring high-risk issues and securities
- monitoring portfolio investments against the RI policies
- monitoring investment managers' approaches to ESG and climate-related risks, the Fund's exposures to greenhouse gas emissions and the development of policies to manage these risks
- analysing RI issues and appropriate responses
- communicating the Authority's policies and decisions to investment managers
- participating in collaborative engagements with other investors
- excluding securities that breach its standards and where the CFIs agree engagement is unlikely to lead to worthwhile change in the issuer's behaviour
- monitoring investment managers' voting records
- publishing its RI policies and exclusion decisions (individual company engagements may be confidential).

In applying the RI policies to a CIV, the Authority assesses value to the Fund of the CIV as a whole rather than each security it may hold. The Authority communicates its RI policies to managers of CIVs in which it invests and encourages them to consider whether its policies are appropriate for the CIV. In addition, the Authority will review its investment if there is a material change in the CIV's mandate or strategy.

In addition to the application of its RI policies to the investments held in the Fund, the Authority:

- encourages the adoption of good corporate governance practices, including exercising voting entitlements consistent with maximising shareholder value and RI policies where possible
- encourages investment managers to consider its RI policies and to integrate ESG factors into their investment analysis and/or engage with corporate entities as part of their investment process
- works with similar investors to enhance the effectiveness of its RI policies, which may include supporting collaborative initiatives and engagements.

Management provides regular reports to the Board on the following matters:

- excluded investments pursuant to the Authority's RI policies
- developing issues affecting particular investments or classes of investment
- engagements with companies pursuant to the Authority's RI policies
- matters considered by the CFIs pursuant to their formal collaborative agreement
- approach taken by investment managers on ESG and climate-related risks, the Fund's exposures to greenhouse gas emissions and the development of policies to manage these risks.

The Authority will publish a Climate-related Disclosures Report annually from 2022 aligned with the recommendations promoted by the Task Force for Climate-related Financial Disclosures.

7 Risk management

Policies

Preamble

The GSFAct requires the Authority to have risk management policies for the management of various investment, operational and financial risks.

The Board's Audit and Risk Review Committee assists the Board in fulfilling its responsibilities with respect to internal controls, accounting policies, financial statements approval and risk management.

Risk management is further supported by the Corporate Governance Statement, Acceptable Conduct Policy, Expenditure Policy for Board members and Management, Risk Policy, Procurement of Services Policy, defined roles and responsibilities, performance accountability processes and timely disclosure and communication.

The Fund's investment risk will be controlled by:

- specifying total Fund risk tolerances for under-performance measured against the New Zealand Government Bonds and the Reference Portfolio (active risk) over ten years
- monitoring those risks, including for intermediate periods, and reporting on them no less than quarterly; and
- specifying, monitoring and reporting no less than quarterly on:
 - the Fund's total volatility, risk relative to global equities and the Reference Portfolio
 - total and relative drawdown risk in stressed environments
 - expected contribution of single strategies to the Fund's total risk and total active risk
 - expected risk of single strategies and investment managers relative to benchmarks representative of the strategy or the investment manager's style.

The Authority will maintain constraints and limits in respect of each asset class or strategy to control risks.

Derivatives may be used for risk management, value adding investment strategies and transactional efficiency.

Standards

A description of various investment, operational and financial risks is provided below.

a) Risk that the Fund's investment objectives will be compromised over time

Asset allocations will drift over time as a result of differences in asset class returns and cashflows, while rebalancing asset allocations incurs transaction costs. Rebalancing involves making a trade-off between these factors. Rebalancing limits therefore define the extent to which the allocation to an asset class is permitted to deviate from the intended allocation (the target allocation plus any temporary changes reflecting DAA decisions) before rebalancing trades are required.

Rebalancing limits are set out in **Appendix Table 5** and are expressed as deviations around the intended allocation. Asset classes are to be rebalanced once the rebalancing limits are breached.

b) Market risk

Market risk is the risk of adverse movements in investment markets (including asset prices, changes in the yield curve or other market-related variables) that affect the value or income of the portfolio. Market risk is outside the control of the Authority. The volatility of investment markets means that the return from the Fund is inherently uncertain. Actual returns from each asset class may vary significantly each year from the mean returns assumed in determining the investment strategy appropriate to the long term.

Major structural changes to investment markets and/or taxation environment are not within the control of the Authority. However, the Authority takes into account changes in these risks in its reviews of the portfolio, Reference Portfolio, DAA and asset class strategy.

The Fund's target asset allocation in **Appendix Table 3** reflects the Authority's appetite for market risk when read in conjunction with DAA limits in **Appendix Table 4** and rebalancing limits in **Appendix Table 5**.

c) Borrowing or leverage risk

The Fund is not permitted to borrow money or charge any of the Fund's property, directly or through financial instruments, without the Minister of Finance's consent.

The Fund may own equity securities or invest in CIVs that borrow or grant charges on their own assets provided that owning these equity securities does not cause undue risk to the Fund as a whole, as expressed in the Investment Objective. Particular investments or strategies within CIVs may be leveraged or include leverage or be invested 'short' provided the overall risk of the CIV is acceptable. (Short positions arise when securities are sold while not yet owned, in anticipation of being bought after the price falls. Short positions may be created physically by borrowing the securities and selling them or through derivative contracts.)

Derivatives are authorised investments for the Authority. These are financial instruments whose value and characteristics are derived from underlying assets, indices or reference rates. They usually contain embedded leveraged exposure to the underlying assets. Derivatives cover a broad range of financial instruments and include futures contracts, forward currency contracts, swaps, forward interest rate contracts, options and credit default swaps. They may be used for risk management, value adding investment strategies and transactional efficiency.

Section 15C of the GSF Act requires the consent of the Minister of Finance to enter into derivative transactions. The Authority has sought and obtained the Minister's consent to use derivatives that create leverage, where the use of those is consistent with the Authority's SIPSP. The Authority has also obtained the Minister's consent to enter into temporary overdrafts with its banks.

d) Manager risk

The Authority appoints investment managers to implement its investment strategy. Investment managers' returns may vary from expected levels.

e) Credit risk

Credit (or counterparty risk) is the risk of default by a counterparty to a particular transaction or an issuer of a security held in the portfolio.

f) Liquidity risk

Liquidity risk is the risk that a security cannot be sold when required or that the price achieved is significantly less than the last quoted price without any fundamental change that justifies the lower price. The Fund invests mainly in securities traded in public markets. Investment in non-publicly traded assets is subject to the Fund's overall liquidity limits. At all times the Fund must be able to meet cash obligations for its share of member entitlements, tax and losses on derivative positions, notably currency hedging contracts. The liquidity test is described in **Appendix Table 5**.

g) Operational risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events. These risks are managed in accordance with the Authority's Risk Policy.

h) Currency risk

Currency risk is the risk that the foreign currency denominated assets will lose value due to the effect of an adverse exchange rate movement. Exposure to currency risk is determined at total portfolio level and specified in the Reference Portfolio and the actual portfolio. **Appendix Table 1** specifies the net foreign currency exposure in the Reference Portfolio for benchmarking purposes. **Appendix Table 3** specifies the Fund's target currency exposure while **Appendix Tables 4 and 5** specify the ranges bounding that exposure permitted for rebalancing and DAA.

i) Derivative Risk

The use of derivatives by the Fund will be consistent with the following:

- derivatives may be entered into by the Authority or its investment managers on behalf of the Fund. Where investment managers or custodians use derivatives, their use must be specified in each investment management agreement or be consistent with the terms governing the CIVs
- where the Authority is a counterparty to a derivative, the terms and conditions of the derivative must be specified in appropriate industry standard documentation.

The use of derivatives is permitted only where:

- it results in market exposures appropriate to the Fund as a whole
- the instruments are traded on recognised exchanges or issued by a counterparty over- the-counter
- the resulting counterparty exposures are adequately controlled and meet the Fund's general requirements in terms of credit rating and contractual arrangements
- the Fund can meet any liquidity requirements arising from their use
- derivative positions held directly by the Fund are collateralised. In general, this
 means the Fund must hold sufficient cash or securities corresponding to the
 derivatives at current and prospective market prices to ensure the Fund remains

within permitted risk limits at all times

- derivatives relating to foreign exchange may be used for the purposes of managing and hedging currency exposures held within the Fund and for the purposes of purchasing or selling foreign currencies required for the settlement of foreign exchange transactions
- the net exposure to foreign currencies (after taking into account hedging positions) in the relevant portfolios is to be in accordance with the Authority's hedging policy for the asset class. If required, appropriate parameters for hedging using proxy currency will be established with the currency managers as well as appropriate operational ranges.

The effective exposures to underlying securities or assets arising from any derivatives are to be taken into account for the purposes of determining compliance with the prescribed exposure limits of portfolios.

Procedures

The Board has approved the following constraints and limits in order to manage investment, operational and financial risks.

- a) Risk that Fund's investment objectives will be compromised is managed by:
 - rebalancing monthly to ensure the Fund remains aligned with the target allocation taking into account known cash flows for the following month. The rebalancing limits are set as a trade-off between the costs of being exactly at the target allocation against the risk that variations in exposures will compromise the Fund's investment objectives. Rebalancing takes into account investments that are relatively illiquid, such as equity interests in CIVs that are not traded and have contractual restrictions on redemptions; and
 - asset classes or components of asset classes that are not able to be readily traded are not subject to formal rebalancing limits but are monitored to ensure their exposure does not become excessive relative to their target exposure.

The rebalancing ranges around the target allocations are shown in Appendix Table 5.

- b) Marketrisk is managed by:
 - specifying the total risk of the Fund and its various major exposures consistent with the Investment Objective and best-practice assumptions in relation to exposure risks and correlations among them
 - diversifying the asset classes in which the Fund invests by adopting the Reference Portfolio and target allocation described in Appendix Tables 1 and 3 and a range of investment management techniques for the Fund
 - seekingprofessional advice on the investment strategy, the Reference Portfolio and the target allocation
 - consulting with other CFIs and large investment funds
 - requiring investment managers to manage their portfolios within the market exposure limits for each asset class held as defined in the agreements with each manager; and
 - setting limits to which investment managers are required contractually to manage their portfolios, which should include:

- limits on the expected volatility of their total portfolio or their portfolio relative to the benchmark
- limits on concentration of exposure to any single issuer of securities
- limits on particular exposures in the investment manager's benchmark and exposures not represented in the benchmark.
- c) Leverage risk is managed by:
 - ensuring that the risk arising from leverage embedded in any equities, shares of a CIV, or derivative positions is managed in accordance with the governing investment management agreement or the terms and conditions of the CIV, and within the risk tolerance of the Fund as a whole
 - requiring any derivative transactions held directly by the Fund to be adequately collateralised with cash or corresponding securities, valued at current market prices
 - entering into commercial arrangements for any charges against the Fund in accordance with industry best practice, such as the use of agreed counterparty settlement limits and temporary overdrafts for forward currency contracts, swaps and other contracts for difference
 - requiring settlement of amounts outstanding from any derivative transactions due to short-term price fluctuations that exceed levels agreed in advance with counterparties
 - the Authority satisfying itself that investment managers (including managers of CIVs) have adequate policies and procedures relating to leverage and derivative counterparties and monitoring adherence to their policies
 - using appropriate industry standard documentation.
- d) Investment manager risk is managed by:
 - robust selection process for investment managers based on demonstrated ability and independent expert opinion
 - diversification among investment managers
 - setting mandates for active investment managers based on best-practice portfolio management that prescribe acceptable risk limits
 - regular assessment and review of investment managers' performance against the agreed benchmark and peers
 - putting in place investment management agreements or other satisfactory contractual terms that separate Fund assets from investment managers and protect against investment managers' errors, omissions and wrongful actions.
- e) Credit risk is managed by requiring that investment managers of the Fund's credit investments:
 - maintain the credit quality of their portfolios within agreed contractual guidelines and specified according to leading credit rating agencies
 - · limit exposure to individual issuers to prescribed limits
 - maintain policies and procedures relating to derivative counterparty selection

and management and appropriate industry standard documentation; and

- control counterparty risk by daily collateralisation of open derivative positions or credit quality limits in investment management agreements. Securities lending risk is managed by collateralisation and an indemnity from the custodian.
- f) Liquidity risk is controlled by implementing the Fund's target allocation and rebalancing procedures. In addition, liquidity risk is managed by:
 - monitoring the Fund's liquidity quarterly against prescribed levels approved by the Board (Appendix Table 5)
 - requiring investment managers to invest only in securities listed on recognised exchanges, except as specifically authorised by the Board
 - limiting investment in securities that are not traded on recognised markets as authorised by the Board (Appendix Table 5 footnote)
 - requiring investment managers, within the terms of their individual investment management agreements, to hold diversified portfolios
 - limiting the credit rating of the fixed interest and cash investments to levels as detailed in the investment management agreements with each investment manager
 - presenting to the Board the projections of the Fund's liquidity, cash flows and illiquid investment obligations whenever an illiquid investment is considered
 - including future cash flows of the Fund in any consideration of additional illiquid asset investments.
- g) Operational risk is managed by:
 - engaging an independent custodian to record transactions, report on performance and monitor compliance of investment managers with mandates
 - having a specific mandate for each investment manager based on best-practice portfolio management, except for investments in CIVs
 - separating functions between investment management and custody and specifying limits to the authority delegated to Management for DAA decisions
 - ensuring Management has sufficient resources to conduct the oversight function as part of its overall responsibilities
 - requiring Fund transactions to be authorised by at least two persons
 - requiring investment managers and the custodian to:
 - provide the Authority with assurances against operational risk events
 - have in place insurance arrangements to cover claims in those events
 - have in place and regularly confirm the existence and efficiency of internal policies and controls to address those risks
 - provide compliance reporting; and
 - reconcile the Fund's recorded positions regularly.
- h) Currency risk is managed by:
 - fully hedging currency exposure on all asset classes except global equities and adjusting the hedge ratio on global public equities (not private equities) to achieve the desired total portfolio currency exposure

- engaging currency managers to manage the various hedging programmes
- specifying the bounds within which investment managers may take on currency exposures relative to their benchmarks
- specifying the instruments that investment managers may use and the minimum credit worthiness of the counterparties in the investment management agreement with each investment manager.
- i) Derivatives risk is managed as follows:
 - all investment managers using derivatives are required to provide the Authority with a copy of their policies relating to derivative securities trading and counterparty risk and to manage their derivative exposures in accordance with those policies. The Authority recognises that, where it invests in CIVs offered by investment managers, those vehicles may be investing in derivatives and takes that into account in determining the appropriate level of investment for the Fund
 - the risk of derivatives is measured by their effective exposure to underlying assets as well as on a standalone basis. The value of derivatives is measured according to generally accepted industry best practice
 - over-the-counter foreign exchange hedging derivative contracts may be entered into only with counterparties that have credit ratings approved by the Board and measured by a recognised rating agency for counterparty risk and domiciled in New Zealand, or in countries with which New Zealand has a double tax treaty
 - the currency exposure associated with international investing is managed using forward foreign exchange contracts or basis swaps relating to the currencies in which the securities that comprise the portfolio are denominated, or their close proxies
 - the investment management agreements for those investment managers actively using forward foreign exchange contracts include limits for the maximum exposure per counterparty. For other types of derivatives there are dollar limits for the maximum exposure before collateral is required
 - derivative policies and practices, including foreign exchange hedging, are in accordance with the investment manager's derivatives policies, set out in their offer documents, or as otherwise specified in an investment management agreement. Investment managers are required to maintain policies and procedures relating to derivative counterparty selection and management accordingly and use appropriate industry standard documentation.

8 Review and monitoring procedures

Performance monitoring

Policies

The Authority will maintain a reporting framework that enables the Board to analyse and monitor the performance of the Fund, asset classes and investment managers against relevant objectives and benchmarks.

A schedule of key reporting items and their frequency will be maintained. Appendix Table 7.

Standards

The primary benchmark for the Fund, as described in section 4, is the return on New Zealand Government Bonds (before NZ tax) benchmarked by the S&P NZX NZ Government Bond Total Return Index.

In addition to estimating the risk of underperforming New Zealand Government Bonds over the next 10 years, the Authority uses a number of short-term and long-term risk metrics to gauge 'undue risk'. These include comparing the Fund and the Reference Portfolio using standard measures of fund volatility and value-at-risk, sensitivity to global equity market returns, expected returns under various macro-economic scenarios, and performance in periods of severe market stress, such as the worst historical rolling four quarters.

Monitoring of the Fund's performance in relation to this benchmark is to take place no less than quarterly.

An associated benchmark for the Fund is the Reference Portfolio as adopted by the Board and described in section 4. The benchmark return for the Reference Portfolio is the weighted average return on the benchmarks of its constituent parts (Appendix Table 1).

The Reference Portfolio is designed to return more than New Zealand Government Bonds while meeting the Fund's risk limits. The Fund's performance is therefore measured against the Reference Portfolio over 10-year periods, although monitored on a more-frequent basis. Performance is to be evaluated on a net-of-fees basis.

The relevant benchmarks for the purposes of assessing asset class or strategy performance are set out in **Appendix Table 6**. The measurement period for assessing relative performance is generally three to five years, although they are to be monitored no less than quarterly.

Procedures

Recognising that investment returns may not meet expectations from year to year, investment performance is assessed by comparing:

- the Fund's pre-tax, post-fee returns with New Zealand Government Bonds and the Reference Portfolio
- the pre-New Zealand tax, post-fee returns of individual asset classes or strategies with their respective benchmarks

• the pre-New Zealand tax, post-fee returns of investment managers with the benchmarks relevant to their respective mandates, plus any excess return target expected for active investment managers (reflecting the active risk taken by the investment manager).

Performance is considered over three and five years and longer periods where applicable. Investment managers are also compared to peer managers in the same asset class or strategy.

The Board reports the Fund's investment performance annually on the Authority's website - *www.gsfa.govt.nz* - and in the Fund's Annual Report, which is tabled in the House of Representatives. Aforecast for investment performance is published each year in the Authority's Statement of Performance Expectations.

For reference, the Treasury also reports to the Minister of Finance quarterly, following consultation with the Authority, on the Fund's investment performance and significant operational issues.

Review procedures

Policies

All aspects of the Fund's investment programme are to be reviewed regularly in line with the schedule approved by the Board.

Standards

Reviews of the investment programme are undertaken by Management with the review provided to the Board for its consideration. In most cases the external investment advisor will provide the Board with its view of Management's review.

Procedures

The frequency for reviewing the key investment policies, strategies, and third-party providers to the Fund is as follows:

- the SIPSP is reviewed and approved at least annually by the Board. Only the Board can approve material changes to it. A version control document is maintained
- the Authority's investment beliefs are reviewed at least every five years
- the Reference Portfolio is reviewed by Management and approved by the Board at least every five years taking into account the investment environment in which the Authority operates. The trade-off between risk and return is reviewed based on analysis of the prospective risk and return characteristics of each asset class in which the Fund might invest and their combinations
- the target allocation is reviewed by Management and approved by the Board at least annually
- the expected excess return of the Reference Portfolio above the S&P/NZX NZ Government Bond Total Return Index over rolling 10-year periods is reviewed annually
- investment managers are reviewed annually against the criteria established for investment managers in section 6 to determine their ongoing suitability for their role.

Valuation of unlisted securities

Policies

The method of, and basis for, valuation of unlisted securities, being those that are not regularly traded on a public exchange, are to be independently verified in line with generally accepted industry standards.

Standards

For unlisted securities, where quoted market prices are not available, fair value is to be determined on the basis of independent valuation or by the application of generally accepted industry standards and subject to independent verification. Investments in CIVs are to be subject to external valuation processes and valued according to generally accepted industry standards.

In the case of over-the-counter derivatives, the mark-to-market method for determining the value is to be independently verified.

Procedures

Where investments are not traded on recognised exchanges, but can be independently priced by the custodian, the Authority, in conjunction with the custodian, determines fair valuation

on these investments through an objective or independent process, where possible, at least annually.

In cases where an independent valuation by the custodian is unable to be obtained, or where it can be obtained but at a cost determined by the Authority to be unreasonable, the Authority relies on the valuation provided by the investment manager using generally accepted industry standards that has either:

- been undertaken by a reputable, suitably qualified professional valuer who is independent of the investment manager; or
- been determined by reference to observable market variables obtained from sources independent of the investment manager.

Investments in collective investment vehicles, where underlying assets are not publicly traded, are subject to the Board being satisfied there are adequate and timely independent valuations and audit procedures to validate underlying valuations.

The Authority may seek independent advice from a suitably qualified, professional valuer to verify or confirm the reasonableness of any valuation provided by an investment manager. Where a valuation discrepancy arises between an investment manager and the custodian, the Authority generally accepts the custodian's valuation.

Appendix

Table 1: Reference Portfolio and benchmarks

Asset Class	Weight as at 30 June 2022 (%)	Benchmark
International equities	70	MSCI All Country World Low Carbon Target Index
NZ equities	10	S&P/NZX50 Gross including imputation credits
Fixed interest	20	Bloomberg Barclays Global Aggregate
Total assets	100	
Foreign currency exposure	20	MSCI All Country World Low Carbon Target Index Unhedged minus Hedged

* Ownership of predominantly international asset classes exposes the Fund to exchange rate risk, ie the risk of loss in value when the New Zealand dollar (**NZD**) appreciates. This risk can be offset to the desired extent with currency hedging contracts. The Fund's strategic netforeign currency exposure is expressed in the Reference Portfolio above, currently 20% of the total Fund.

** to measure the effects of its decarbonisation commitments relative to a standard market index, the Board will continue to monitor and report on the performance relative to the MSCI All Country World Index

Table 2A: Fund Level Investment Risk Appetite

Fund Level Metric	Expected Risk / Limit	Measurement	Reporting	Approved
Fund Total Drawdown Risk	The worst-case drawdown must not be greater than 30% over rolling four quarters.	Current Reference and Target Portfolio drawdown under historical stressed market environments. Reference and Actual Portfolio historical return over most recent four quarters.	Board QIR & Treasury Risk Report	9-Aug-18
Fund Risk versus Government Bonds	There is expected to be a 13% chance of 10% underperformance over 10 years.	Forward looking Reference and Target Portfolio expected outcome (10-year full draws). Reference and Actual Portfolio historical returns over the last 10 years.	Board QIR & Treasury Risk Report	9-Aug-18
Fund Risk versus Government Bonds	There is expected to be an underperformance at the 5th percentile of no more than 32% over 10 years.	Forward looking Reference and Target Portfolio expected outcome (10-year full draws).	Board QIR & Treasury Risk Report	9-Aug-18
Fund Active Risk (risk versus Reference Portfolio)	A 3% pa limit on ex ante (forward looking estimates) of active risk.	Forward looking standard deviation of the expected excess returns of the Target Portfolio versus the Reference Portfolio (exante active risk).	Board QIR & Treasury Risk Report	3-Nov-21
,	Active risk in excess of 6% pa ex post requires	Standard deviation of historical returns of Actual Portfolio versus the Reference		

Management Respons	e. Portfolio over 5 years (ex-post active risk).	
	<i>Realised</i> (ex-post) active risk will on occasion exceed 3%. The 6% (ex-post) limit effectively captures a 2 standard deviation outcome.	

Table 2B: Strategy Level Investment Risk Appetite

Strategy Level	Expected Risk / Concentration limit	Measurement	Reporting	Approved
DAA Total Risk	It is expected DAA incremental total risk to be zero on average over the medium term but not more than 2.3% at any point in time.	Forward looking standard deviation of DAA plus Reference Portfolio returns minus the standard deviation of Reference Portfolio returns. Standard deviation of historical DAA plus Reference Portfolio returns minus the standard deviation of the Reference Portfolio returns over 5 years	QIR and Strategic Tilting Minutes	5-Aug-20
DAA Active Risk	It is expected DAA active risk will be 1% on average over the medium term and not more than 2.7% at any point in time.	Forward looking standard deviation of expected DAA returns. Standard deviation of historical DAA returns over 5 years	QIR and Strategic Tilting Minutes	5-Aug-20
Total Private Equity	30% concentration limit of private equity to total equity	Total (domestic and global) invested private equities to not exceed 30% of total (domestic and global) invested private and public market equities.	Annual Reviews and QIR	31-Jul-19

Table 3: Target Allocation as at 1 September 2022

Asset class	Weight (%)
International equities	55
NZ equities	10
Fixed interest	14
Global private equity*	15
Catastrophe risks	3
Life Settlement risks	3
Total Assets	100
Foreign currency exposure	20

* Total invested private equities (domestic and global) not to exceed 30% of total equities (domestic and global, private and public.

Asset class	Limit versus Target Allocation (%) ¹
Cash vs equities vs fixed interest	+/-10
Developed market equities vs emerging market equities	+/-5
US equities vs non-US equities	+/-5
NZ equities vs international equities	+/-2
Developed market fixed interest vs emerging market fixed interest	+/-5
Foreign currency exposure	+/-15
Major foreign currencies vs NZD ²	+/-10
High yield credit vs governments vs investment grade credit	+/-5
Commodities and/or property	+/-5

¹ Although the ranges have been expressed as symmetric, short exposures are not permitted.

² Major currencies include USD, EUR, GBP, JPY, CHF, AUD.

Table 5: Rebalancing limits

Asset class	Rebalancing limits (± %)
Combined Global public and private equities	5
Combined NZ public and private equities	2
Fixed interest	4
Catastrophe risks	2
Life settlements	2
Foreign currency exposure	5

Liquidity Test:

- Assumes 30% declines in equities and the NZD.
- Assesses whether the Fund still holds sufficient liquidity following any significant valuation declines in assets to cover currency hedging losses and fund all uncalled private equity commitments.
- Checks whether rebalancing is required for liquid assets following withdrawals.

Table 6: Benchmarks

Asset class	Benchmark	
International equities	MSCI All Country World Low Carbon Target Index	
NZ equities	S&P/NZX50 Gross Index including imputation credits	
Fixed interest	Bloomberg Barclays Global Aggregate Index	
Global private equity ¹	MSCI All Country World Index	
Catastrophe risks	Swiss Reinsurance Catastrophe Bond Total Return Index	
Life settlements risk	Bloomberg Barclays Global Aggregate Index	
Dynamic asset allocation	Programme profit or loss/total fund	
Foreign currency exposure	MSCI All Country World Low Carbon Target Index unhedged minus hedged.	

¹ Private equity is benchmarked against the public market equivalent plus an expected risk premium of 3% pa.

Table 7: Reporting Schedule

Strategic Issues	
Investment Objective	5-yearly
Reference Portfolio - Risk profile	5-yearly
Investment Model	5-yearly
Investment Beliefs	5-yearly
Target Portfolio Total Risk Review	Yearly
Target Portfolio Alternative Betas	Yearly
Investment Committee Terms of Reference review	3-Yearly
Statement of Intent/Statement of Performance Expectations	Yearly
Investment Consultant	5-yearly
Statement of Investment Policies, Standards and Procedures Review	Yearly
Climate Change Response	Quarterly
	Quarterly
Custodian Review	5-yearly
Dynamic Asset Allocation Review	3-yearly

Operational Reviews	
Quarterly Investment Report, including responsible investment	Quarterly
Global Public Equities	Yearly
NZ Public Equities	Yearly
Global Fixed Interest	Yearly
Currency Management	3-Yearly
Global Private Equities	Yearly
NZ Private Equities	Yearly
Life Settlement	Yearly
Catastrophe Risk	Yearly
Benchmarks for returns, risks and costs	Yearly
Investment Committee Self Review	3-yearly
Securities Lending	Yearly
Class Actions	Yearly
Liquidity Policy	3-yearly
Compliance with SIPSP	Yearly
Actuarial projections of Fund size and cashflow	Yearly
Rebalancing Policy	3-yearly





GOVERNMENT SUPERANNUATION FUND Te Putea Penihana Kawanatanga