# Strategic Tilting Policy

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**Document Handling:**
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**Document History:**

| Version | Date | Changes/Modifications | Approved By | Status |
|---|---|---|---|---|
| 1 | 13 June 2011 | | | Final |
| 2 | 4 July 2011 | Minor changes to policy statements. Substantial changes to Schedules 2-4 | | Final |
| 5a | 11 Aug 2011 | Changes to the signal-to-mapping rules in Schedule 4 | CEO | Final |
| 5b | 27 Jan 2012 | Change to Schedule 4: Signal-to-Exposure Mapping Rules and Mechanical Constraints to reflect new currency tilt mapping rule. | CEO | Final |
| 6 | 12 June 2012 | Annual Review of Policy by Board | Board | Final |
| 7 | 9 April 2013 | Update role titles, revise position management details | Board | Final |
| 7A | 14 Feb 2014 | Changes to Responsibilities Schedule | CEO | Final |
| 8 | 31 July 2014 | Biennial Review of Policy by Board | Board | Final |
| 8A | 3 July 2015 | Updates to Schedules 1, 3 and 4 to reflect changes to the currency tilting approach, constraint changes, role and title changes and reference portfolio changes. | CEO | Final |
| 8B | 18 Feb 2016 | Update Schedule 2: Strategic Tilting Ranges | Board | Final |
| 9 | 21 June 2016 | Biennial Review of Policy by Board | Board | Final |
| 9A | 13 Mar 2020 | Update to Schedule 1 (Responsibilities) | Board | Final |
| 9B | 7 Sep 2021 | Update to Schedule 1 (Responsibilities) | CEO | Final |

# Contents

## 1. Background

1.1. We have established a Reference Portfolio which specifies weights for various market exposures that may be obtained at low-cost on a passive basis.

1.2. In the Actual Portfolio of the Fund we seek to add value to the Reference Portfolio in three ways:

- by temporarily adjusting (tilting) the Fund's exposures to various risk premia in response to changes in expected returns (Strategic Tilting).
- through accessing risk premia and skill-based returns not available in the Reference Portfolio (Capturing Active Returns).
- by gaining access to the desired risk exposures, rebalancing the Fund, and managing liquidity risk in the most cost effective manner possible (Portfolio Completion).

1.3. The Strategic Tilting strategy takes advantage of our core investment belief that expected asset class returns are partly predictable and returns may revert toward a mean over time. We expect that Strategic Tilting will enhance the Fund's risk-adjusted returns over long horizons.

## 2. Objective

2.1. To implement effective controls and frameworks to ensure that all aspects of generating Strategic Tilting signals and setting Strategic Tilting targets are managed effectively and in compliance with our governance and legislative requirements.

## 3. Definitions

3.1. To aid with interpretation of this policy we have a *Glossary of Terms for Policies*, which defines all investment and technical terms used in our policy documents. References to documents are italicised.

## 4. Scope

4.1. This policy covers:

- the framework used to generate signals; and
- the Strategic Tilting decision making process.

4.2. This policy does not cover:

- Implementation and maintenance of Strategic Tilting exposures, which are both part of the Portfolio Completion process and are covered in the *Portfolio Completion & Internally Managed Securities Policy* and the *Strategic Tilting Internal Investment Mandate*.

## 5. Delegations and Authorities

5.1. The *Delegations Policy* governs the delegations and authorities that apply in all policy documents. In the event of any discrepancy between this policy and the *Delegations Policy* the *Delegations Policy* will prevail.

5.2. The Board has reserved certain matters either to itself, a committee of the Board or the Chief Executive. All other matters are delegated to the Chief Executive who may sub-delegate them to Guardians' staff. All delegates and sub-delegates must exercise their authorities in compliance with the general conditions of delegation and sub-delegation set out in Schedule 2 of the *Delegations Policy.*

5.3. There are certain responsibilities inherent under this policy. Those responsibilities, and the person responsible for them, are outlined in Schedule 1.

## 6. Strategic Tilting Decision Making

The Strategic Tilting framework generates a signal to tilt a market exposure when its expected return over cash (risk premium) differs materially from our equilibrium assumptions. This will primarily occur when we assess markets to be priced at an elevated or depressed level relative to our measures of fair value. The size and timing of incremental tilts and of the total tilts are governed by a set of rules within the framework, overlaid with judgment, and subject to constraints that the Board may set. A key area for potential judgmental overlay to the signals will be assessment of downside risks.

6.1. We will maintain and adhere to a Strategic Tilting decision making framework that focuses on the following:

- Maintenance of a robust signal generating framework;
- A sound decision making reporting process;
- Appropriate calibration of tilt positions to the perceived opportunities.

6.2. Proposals to change target Strategic Tilting exposures must be approved in accordance with the *Delegations Policy*.

6.3. An outline of the current strategic tilting framework must be maintained in Schedule 2.

## 7. Strategic Tilting Limits

Strategic Tilts represent active risk relative to the Reference Portfolio. To ensure that this risk is consistent with the Board's risk tolerance for the Fund the Board sets constraints on the maximum allowable tilts.

7.1. The Board will set maximum allowable exposures for Strategic Tilting. These are maintained in Schedule 7 of the Investment Risk Allocation Policy.

## 8. Reporting

8.1. We must report to the Board on the following matters:

- Strategic Tilting positions;
- Performance of strategic tilts.

8.2. We will report proposed material changes to the following schedule to the Board for their approval:

- Schedule 3: Reporting Framework

8.3. We must report to the Board, for their information, material changes to the following schedules:

- Schedule 1: Responsibilities
- Schedule 2: Strategic Tilting Framework

8.4. An outline of the current reporting framework, including any reporting to internal management committees, must be maintained in Schedule 3.

## 9. Legislative Compliance

9.1. There are no laws that apply specifically to Strategic Tilting. However, our governing legislation and the Code of Conduct which includes reference to the Financial Markets Conduct Act 2013 applies.

## 10. Control Section

Approved this 21st day of June 2016

Chief Investment Officer ________________________________________

Chief Executive Officer ________________________________________

Board Chair ________________________________________

## Schedule 1: Responsibilities

| | |
|---|---|
| **Chief Investment Officer** will: | • ensure this policy is kept current and relevant to the activities being undertaken (including schedules 1-3)<br>• ensure this policy is reviewed at least every five years |
| **Head of Strategic Tilting** will: | • ensure the Guardians maintain and adhere to a Strategic Tilting decision making framework<br>• maintain and develop the risk assumptions used in strategic tilting<br>• maintain and develop the key assumptions and parameters used to generate tilting signals and mapping to position sizes<br>• maintain and develop the models and frameworks used to generate tilting signals<br>• maintain and develop the confidence assumptions and framework used to calibrate tilting signals to recommended tilt position sizing<br>• instruct changes to Strategic Tilting exposures to the Head of Portfolio Completion<br>• provide a strategic tilting update to each Board meeting<br>• provide a strategic tilting report to the IC at least monthly |
| **Manager, Economics** will: | • monitor the distribution of risks and recommend any appropriate positions to manage these risks, if appropriate.<br>• Provide input into, review and agree the key economic assumptions and parameters in the models that generate the tilting signals |
| **Head of Asset Allocation** will: | • provide input into, review and agree the framework used to generate tilting signals, the confidence assumptions and the calibration of tilting signals to recommended tilt position sizing |
| **Head of Portfolio Completion** will: | • manage the implementation and maintenance of Strategic Tilting exposures |
| **Head of Risk will:** | • report material policy breaches notified through the Learning Opportunities reporting process immediately to the Risk Committee and Board<br>• report all policy breaches notified through the Learning Opportunities reporting process to the subsequent Audit Committee meeting |
| **General Counsel will:** | • report material changes to the schedules of this policy as part of the annual SIPSP review to the Risk Committee and Board meetings as well as under the no surprises protocol. |

**Responsibilities approved by Chief Executive on 21 June 2016, and amended 13 March 2020 and 7 September 2021**

## Schedule 2: Strategic Tilting Framework

### 1. What is Strategic Tilting?

Strategic Tilting is the temporary adjustment of the Fund's exposures to various risk premia in response to changes in expected returns. It usually implies leaning against the wind, reducing exposure when markets are rising and *vice versa*.

A number of different types of decisions can be thought of as strategic tilts:

a) Adjusting a fund's risk profile. Where expected returns have (say) fallen across the board, a response may be to reduce the Fund's absolute risk, i.e. tilt away from growth risk premia to cash.

b) Making tilts between asset classes. Reallocations of risk between equity, real estate, duration or credit might be of this form.

c) Making tilts within listed asset classes, such as equities. Examples of such tilts include growth versus value, small versus large, emerging versus developed, regional or country tilts, etc.

### 2. Expected Performance Impact

Strategic Tilting takes advantage of our core investment belief that expected asset class returns are partly predictable and may revert toward a mean over time. We expect that Strategic Tilting will enhance the Fund's risk-adjusted returns over long horizons. However, over short periods there is a reasonable chance that Strategic Tilting could produce negative outcomes.

The tilting signals are expected return forecasts derived from valuation models and/or from economic analysis of stress scenarios (i.e., possible downside and upside risks). Every asset class and market has a required risk premium that compensates the Fund for the inherent risk of the exposure. When expected returns (expected premium for taking on the risk) are significantly different from required returns a tilting signal is generated. The modelling framework assumes mean reversion in expected returns. If there are structural changes in risk premia, the modelling framework will struggle to capture these effects.

In June 2011, the Strategic Tilting relative risk limit was expanded from 265bp to 690bp, the risk budget (expected average risk usage through time) was expanded to 300bps at the same time. The larger risk budget comprises wider tilting bands on our traditional instruments (global equities, REITs, duration and foreign exchange [FX]), as well as the introduction of new instruments (emerging market equities and commodity futures), and the ability to use greater granulation in implementing positions (for example on individual currencies).

In 2014 the Fund introduced a 'whole of Fund' active risk budget accompanied by an active risk constraint. Absolute risk constraints were also introduced for the whole of Fund (including tilting).

The increased flexibility provided by the larger risk budget will enable us to better pre-position the portfolio to mitigate downside risks arising from "stress events" and limit the damage if those risks impact markets. In practice, we are less likely to pre-position tilts unless valuations are also aligned. The considerations we would take into account are outlined in Section 4, Step 3 of this document.

## 3. The Role of Judgement

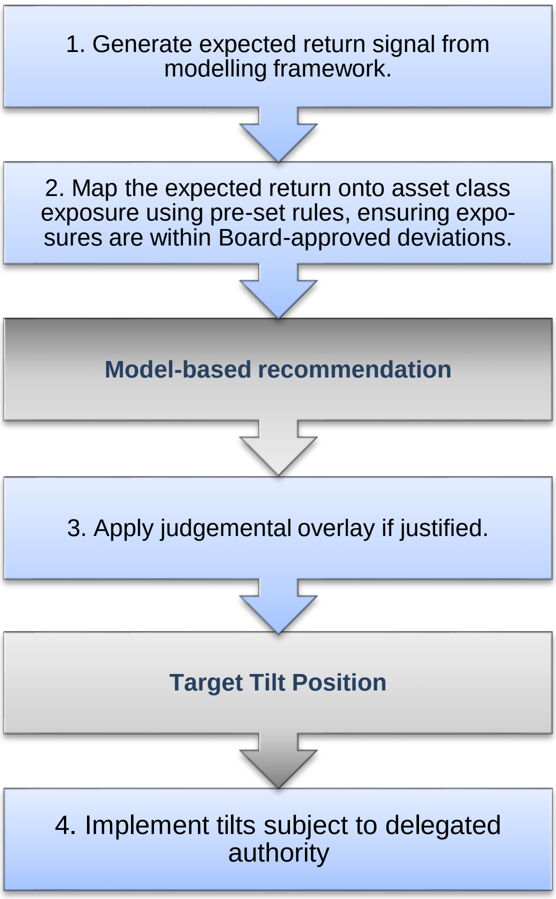
Central to our Strategic Tilting strategy since its inception has been the use of long-horizon expected returns that are generated from a systematic forecasting approach, rather than a judgmental reading of the current investment environment. The focus of our return forecasts is on the long-term expected cash flows and the appropriate discount rate, not on pressures that might drive returns over the next few months.

That is, the forecasts do not attempt to capture drivers of short term returns such as momentum, liquidity and sentiment. Nonetheless, judgement around these drivers should and does play a strong role in the decision to implement tilting positions. Although our approach is anchored on identifying fundamental value, there may be times when judgement over-rules the model results. Examples of the circumstances that could lead to over-riding the models include:

- concern that the modelling framework is missing important economic fundamentals and does not give a good picture of the 'true' expected returns;
- concern over extreme events that heighten uncertainty well above normal levels;
- operational considerations that render the inception or maintenance of a Strategic Tilting position difficult or risky for the Fund. These may include: liquidity constraints; concern over the viability of any counterparty used to implement a Strategic Tilting position; unusually large implementation costs; other factors impacting the ability of the Guardians to conduct its operations.

In Step 4 of the next section we highlight the role for judgement in managing the tilting process, consistent with the Board's decision to increase the strategic tilting risk budget in June 2011.

## 4. Decision Process




The figure to the right highlights the decision process for Strategic Tilting. We will take each step in turn in the following sections. Namely:

1. the modelling framework that generates the expected return signal;
2. the mapping of the signal onto a position exposure and application of any materiality threshold;
3. any judgmental overlay; and
4. the use of delegated authority for adjusting positions within agreed bands.

After discussing these we conclude with some comments on controls.

### *Step 1. Expected Return Modelling Framework*

The first step is to generate expected returns for each of the risk exposures that make up the strategic tilting framework. These are based on fundamental, long term valuation models that assume reversion back to the mean.

The approach within the tilting framework is to apply transparent, consistent analysis whereby signals are generated by the evolution of variables driving expected returns rather than by changes in the forecasting methodology.

Any changes to the modelling framework assumptions are articulated and discussed in the strategic tilting reports presented to the Investment Committee.

### *Step 2. Mapping Signals to Recommended Positions*

Step 2 maps the expected return signals into recommended positions on asset class and market exposures. We use the PD Tool allocation methodology to determine the recommended positions. Under this methodology, positions are sized according to the price/valuation signals, risk and confidence assumptions. The allocation approach is calibrated according to the exposure limits set in Schedule 7 of the Investment Risk Allocation Policy. This allocation approach is approved in accordance with the Delegations Policy.

We impose a materiality threshold to establish the minimum changes in a position size to ensure the recommended adjustment to a target tilt is meaningful in terms of its impact on Fund risk and performance.

### *Step 3. Any Judgemental Overlay*

The default decision is that exposures will be adjusted in line with the recommended positions. However, a judgmental overlay may be applied to deviate from the recommended positions.

We listed some of the potential considerations that would warrant a judgemental override of a signal in the earlier section “The role of judgement”. In light of the larger strategic tilting risk budget approved by the Board in June 2011 the role of judgement has also increased. In particular, the enhanced risk budget can be seen as a means to respond to events that potentially increase the risk of the Fund experiencing a large decline in value. We refer to such events as tail or “stress events”.

Such events may be accompanied or flagged by extreme (negative) expected return signals. These signals will be derived from economic downside risk scenarios that require us to place a probability on the event occurring and identify which asset classes would be affected if the scenario occurs. While ultimately this is a judgemental exercise, informing the probabilities and their impacts will be quantitative measures of market and economic risks, external views on downside risks, and historical precedents.

In the case where a valuation signal is aligned with a view that tail risks are elevated, the decision to reduce the Fund’s risk is relatively straightforward. However, it could also be the case that downside risks dominate the outlook in the complete absence of supporting valuation signals or the supporting signals could be confined to a relatively small subset of the potential tilting instruments. In these cases, we would apply judgement on the probability of an adverse event imposing a large loss on the Fund and reduce the Fund’s risk accordingly.

We believe that valuations should continue to be the anchor for our tilting activities. The Fund is a long-horizon investor and we are prepared to bear short term losses in order to generate superior long term investment returns. The implication of our beliefs is that we are less likely to put on a tilting position that was contrary to the direction of a signal. However, we would be prepared to apply judgement in delaying the implementation of a position or adjusting a position size in response to a change in a signal, but we would generally not be inclined to put on a position that was at odds with a valuation-based signal. The wider ranges in the expanded risk budget, as well as the newly introduced asset classes and the greater granulation of instruments, also allow us to better capture attractive risk premia in the event that the market has experienced a large decline. Once again, judgement on the appropriate calibration of risk to the signals is required.

***Step 4 Use of Delegated Authority.***

The authority to set strategic tilting positions is outlined in the Delegations Policy. In order to enhance the management of the tilting strategy and to avoid the need to continuously call meetings of the Investment Committee every time a position change is recommended, a permitted position size range for each tilt is established. The range is expressed as a symmetrical percentage adjustment to the mid-point of the target position (subject to minimum and maximum target position sizes). The permitted position size range will be reset by the tilting team if the target position is outside the range and noted to the Investment Committee immediately.

## 5. Strategic Tilting Controls

Controls within the strategic tilting framework include the Board-level governance and decision-making controls outlined in this policy.

There are also controls around the signal generation process including the following requirements:

- The modelling framework contains comprehensive data integrity checks.
- The output of the modelling framework includes, where appropriate, decomposition of expected returns into component parts to assist sanity checks.

- There are code-change (version) controls.
- There are at least two sets of eyes plus a strategic tilting team discussion around every tilting report generated for the Investment Committee.
- The *Strategic Tilting Policy* has a reporting framework. The reporting requirements are set out in Schedule 3.

Further to this tilting positions are generally maintained in separate portfolios to enable performance attribution and implementation of the tilting is integrated into the Fund rebalancing process.

**Approved by the Chief Executive on 31 July 2014, amended on 3 July 2015, and 21 June 2016**

## Schedule 3: Reporting Framework

| Report | Frequency required and by whom | Minimum information required |
|---|---|---|
| Strategic Tilting Update | To each scheduled Board meeting | • Tilt positions;<br>• Any judgmental overlay and rationale for overlay;<br>• Performance last month, year to date, since inception. |
| Strategic Tilting Report | At least Monthly at IC | • Changes to models;<br>• Tilt signals and positions;<br>• Stress event risk assessment, if appropriate;<br>• Rationale for recommended tilts;<br>• Performance last month, year to date, since inception. |
| Strategy Review | As determined by the IC and the Board | • Summary of changes to strategy implementation;<br>• Performance of strategy versus expectations. |
| Breach of this policy | If material: immediately to RC and Board<br>Otherwise: to subsequent RC, AC and Board meetings | • Details of breach and remedial action taken. |
| Material changes to Schedules of this policy | Annually to the Risk Committee and Board and under the no surprises protocol. | • Details and reason for change. |

**Approved by the Board on 9 April 2013 as amended 31 July 2014, and 21 June 2016**