

**Report:**

**The Guardians**

**of New Zealand**

**Superannuation Fund**

**by**

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## Introduction

The Guardians of New Zealand Superannuation (the Guardians) is a Crown Entity established by the New Zealand Superannuation Act 2001 (the Act) to manage and administer the New Zealand Superannuation Fund (the Fund). Under Section 71 of the Act, a performance review is to be conducted shortly after inception and at intervals no more than five years apart thereafter. Each performance review must be conducted by an independent person appointed by the Minister.

As an independent consulting actuary, with extensive experience in advising on investment matters, Jonathan Eriksen, of Eriksen & Associates Limited was appointed to conduct the initial review in August 2004.

## Terms of Reference

The purpose of the review is to ensure optimal future performance by the Guardians by assessing whether it is complying with best practice across all aspects of its operations. As specified by the Minister of Finance, the reviewer will advise whether or not:

- the investment policies, standards, and procedures, established by the Guardians are appropriate to the Fund.
- the investment policies, standards, and procedures, established by the Guardians have been complied with in all material respects.
- the Guardians' operations across all aspects of their organisation represent best practice, as appropriate to the New Zealand Superannuation Fund.
- the investment performance of the Fund to 30 June 2004 has been satisfactory.
- the Guardians are satisfactorily positioned to meet their objectives under the Act in the future
- there are any other factors relevant to the performance of the Guardians and the New Zealand Superannuation Fund.

## Priority Issues

The following were identified as being priority issues:

- Best practice - definition and assessment.
- SIPO. The statement of investment policies, standards and procedures.
- Internal controls and systems, risk management, reporting and auditing.
- Governance/Accountability across the organisation.
- Performance management of the Board and Management.
- Third party performance management including mandates and monitoring.
- Expenditure. Operational expenditure and expenditure charged against the Fund, in particular fund manager and custodian fees.

## Tasks to be Undertaken

To conduct the review I focused on and examined the following features of the Guardians' operations:

- the overall investment performance, taking into account the timing of the cash flows, smoothness of the placements, impact on markets (if any) etc.
- the reporting processes between investment managers, custodians, the Executive and Board of the Guardians.
- briefly review the performance of the various asset classes with internationally recognised benchmarks or review of the work on performance already conducted.
- corporate governance of both the investment managers, custodians and the Guardians with specific reference to topical issues such as soft dollar commissions, mutual fund market timing, segregation of duties, etc.
- the interactions of the Board and the Chief Executive by studying Board minutes and briefly interviewing the Chairman, Chief Executive, other Board members and senior staff.
- progress of staff appointments, human resource policies and succession planning.
- use of external consultants and effectiveness of the advice.
- development of in-house resourcing and future plans to accommodate the prospective growth of the Fund.
- documentation and advice on policies, standards and procedures.

## Executive Summary

My review indicates:

- The investment policies, standards and procedures established by the Guardians are appropriate to the Fund. In particular they have developed a best practice model to be a manager of investment managers of a mainly active investment style with an appropriate weighting of growth assets.
- The investment policies, standards and procedures established by the Guardians have been complied with in all material respects.
- All aspects of the Guardians' operation represent best practice as it relates to the New Zealand Superannuation Fund except for one minor point. Although detailed Statements of Intent had been prepared for the 2002/3, 2003/4 and 2004/5 years, the business operating plan for 2004/5 was not submitted to the Board for final approval until recently. In my opinion, following its adoption, there is best practice governance/accountability across the organisation.
- The investment performance of the Fund to 30 June 2004 has been satisfactory. The annualised rate of return for the 9 months ending 30 June 2004 was 10.4%, against a target return of 7.8%. Since the Fund has not been invested for a long period, these returns are not particularly significant and should be regarded as indicative only.
- For the future I recommend the Guardians increase the benchmark weighting in alternative assets and decrease the weighting in international equities. This should help meet the demanding performance target by spreading investment risks more widely. Extensive research into alternative asset classes is needed to maximise the effectiveness of the implementation of these areas of investment.
- More resources are also required to continue the growth of the Fund, develop the existing executive team's skills and retain them.
- In order for the Guardians to be satisfactorily positioned to meet their objectives under the Act in future, additional funding is required to conduct research into alternative asset classes and provide for increased internal resources.
- The Guardians Board did an excellent job as a start-up Board. They employed an experienced and capable CEO who was well suited to the task and who in turn has employed an excellent team of top quality investment professionals who should serve the Board (and the citizens of New Zealand) well provided they stay together.
- They received contestable advice from two major asset-consulting firms, Mercer Investment Consulting and Russell Investment Group (second opinion).
- The investment framework and related range of decisions taken were sound and gave the best chance for the Fund to out-perform its aggressive investment performance target.

- The Board and Executive have succeeded in investing the bulk of the funds received in a practical efficient way in a short timeframe and with very modest resources. In my view the Government has received excellent value for money from the Guardians to date.
- The Guardians are entering the first of several consolidations in the development of the Fund. They have invested the bulk of the funds available for listed assets but now need to research and develop investment in the area of alternative asset classes.
- The Board has now successfully delegated most functions. The Executive screens the short-listed investment managers and makes recommendations to the Board. The Board is well suited to its governance role but, in my view, would benefit from the addition of more skilled investment professionals especially in the areas of alternative assets.
- I suggest the Board formalise arrangements for individual Board members and the Executive to make regular contact with external top class investment professionals from other large funds or fund managers around the world. This would support the work of the Executive and Board by getting additional external input into international trends and experience.
- There are no other factors relevant to the performance of the Guardians and the Fund to draw to the Minister's attention.

## Background

The Guardians of New Zealand Superannuation is a Crown Entity established by the New Zealand Superannuation Act 2001 to manage and administer the New Zealand Superannuation Fund.

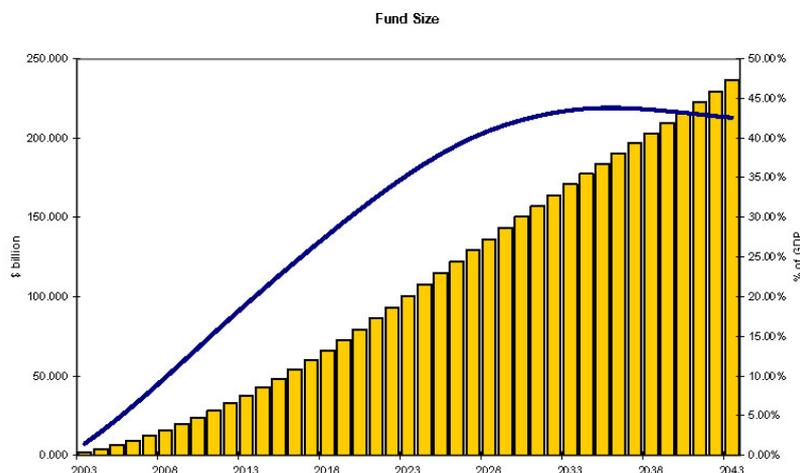
The Guardians has a separate governing Board that must comprise at least five but no more than seven members. Members of the Board are appointed by the Governor-General on the recommendation of the Minister of Finance. An independent nominating committee makes nominations to the Minister who then consults with representatives of other political parties in Parliament before the decision is made.

The first appointments to the Board were made in August 2002. In turn, the Board appointed its first Chief Executive, Paul Costello, in March 2003. Before Mr Costello's appointment the Board chose to appoint a small secretariat of well-qualified investment professionals. As a start-up Board it had the enormous challenge and exciting opportunity to develop the Fund's investment strategy and operations from scratch. Subsequently, the Chief Executive has recruited a small team of investment professionals to assist in the development and implementation of the Investment Policy.

Under the Act, the Guardians must invest the Fund on a prudent commercial basis. They must:

- Adopt best practice portfolio management.
- Maximise the return 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 Guardians have complete freedom to establish investment policy, adopt standards and procedures for the Fund and decide on the asset allocation for individual types of investments. Based on the expected contributions from the Crown and projected investment returns, the Fund should grow to over \$200 billion over the next 30 to 40 years. A 1% return on that amount is \$2 billion per year, which is equivalent to the Crown's current annual contribution. Achieving a strong investment return is thus very important. The chart shows the expected development of the Fund in its first forty years. The bars show the Fund size in nominal dollar terms. The line shows the Fund size as a percentage of GDP.



Source: Guardians of New Zealand Superannuation – Statement of Intent for the Period 1 July 2003 to 30 June 2006

The scale of operation is unique in New Zealand. The next largest fund is the Accident Compensation Commission (ACC) with \$6 billion, which may grow to around \$25 billion over the same period.

The Fund is also unusual because of its high public profile. It has attracted attention from many operators of other large international funds, investment managers and the public.

New Zealand is viewed internationally as a good source of ideas and approaches to public policy issues because of its low levels of bureaucracy, simple corporate infrastructure and small relatively well-educated population. The Guardians have added to the global interest in New Zealand and are seen as a useful role model by large corporate superannuation schemes in New Zealand.

# Definitions of Best Practice

## Introduction

Some of the best-known large funds internationally are those that manage the major U.S. university endowments, of which the two largest and well known are those of Harvard and Yale.

Studies comparing the returns of U.S. endowment funds of varying sizes have shown that the largest funds consistently have the best returns – both through up and down markets – and this has raised the question as to why this is and whether the smaller funds (under \$US100 million) can perform better. The qualified answer to this is that they can; if they act like the larger ones. The following are the key elements which have been identified:

1. A knowledgeable, experienced and committed board, which includes significant investment expertise that is focused on broad policy and strategic issues. An investment sub-committee of the board may be used to provide more focused responsibility and closer attention to investment strategy.

Larger funds have experienced specialist full-time employees who report to committees on strategy. Such committees commonly include members with substantial investment experience. These committees typically drive the policy direction while leaving the routine funds management to other professional employees.

The larger funds also tend to encourage their board and key professional staff to keep in touch with other professionals by attendance at conferences, study trips and professional societies.

The biggest danger that a fund faces is in not having sufficient research resources to adequately devise and develop its strategy. Modern simulation models and advanced computing power allow asset allocation modelling to be carried out even by smaller funds.

Those directing smaller funds sometimes see it as less risky to make modest returns using conventional asset classes than to diversify their risk more widely via alternative asset classes. Part of this may be a fear of striking out with a bold strategy and then facing criticism if it fails (a fear of failing in an unconventional manner). This has potential parallels with large Government sponsored funds where many commentators tend to focus on short-term performance rather than more correctly looking at the longer-term returns.

2. The board should have professional staff with full responsibility for implementing policy including, if appropriate, tactical shifts within established policy portfolio allocation ranges. Again, this focuses on strategy as opposed to management. There is thus a division or segregation of duties between the policy and management groups of executives.

Institutions with smaller funds tend to spend more time on hands-on management and little on strategic planning of the fund structure, resulting in a relatively passive structure overseen by consultants or volunteers. They do not have the time or expertise to optimally develop the investment direction.

3. A highly professional, experienced and dedicated staff of an appropriate size is needed to manage, oversee and monitor the total fund portfolio. Complex alternative investment strategies where transparency is more difficult to achieve require specialist resources to manage.

Since asset allocation remains a dominant influence in portfolio returns high performing funds continuously monitor their asset allocation, costs and risk, using appropriate analytical tools and outside expertise.

4. A broadly diversified portfolio representative of all major asset classes. The fundamental principle of prudent investment management is risk diversification, that is, "don't put all your eggs in one basket". A fund of funds approach can offer a range of styles within an asset class at an acceptable cost. This is often combined with a core/satellite approach to equities that employs a core of large cap equities managers around which various (possibly better performing) micro, small and mid-cap equities managers can be arranged.

Smaller funds typically allocate their funds between fixed income and large cap equities (the traditional asset classes), while larger funds are more creative and allocate their funds across a much wider range of asset classes, especially the various alternative asset classes. The larger funds are much more diversified, less volatile and tend to perform better over all parts of the investment cycle. The relative illiquidity of most alternative asset classes is of less significance to a diversified fund invested for the long-term.

While risk is conventionally seen as relating to the volatility of the returns in a portfolio over a period, it can also be related to the consequences of not having a high enough return over the longer term to meet the purpose of the fund.

## **Investment Policy**

There are numerous investment management operations around the world. The range of different solutions chosen is varied. In the case of the New Zealand Superannuation Fund, the key issues for decision-making have been:

- Investment objective (target return)
- In-house or external management. If external, what combination of multiple managers?
- The proportion of growth assets to be included in the Fund.
- Active versus passive management.
- Risk budgeting.
- Currency hedging.

### *Investment Objective*

Most funds set an investment objective or target return which represents 1% or 2% above the benchmark (or market return) or the rate of inflation plus 3% - 5%. Having an absolute return target (a fixed figure) is less frequent, although with the downturn in equity markets since March 2000, investors are more concerned about absolute returns rather than relative returns.

### *In-house or External Management:*

For many funds, external management tends to be preferred because of the increased opportunities to diversify risks across differing asset classes, investment styles and sectors. It is also more cost effective to manage managers rather than attract, build and maintain a strong in-house team of talented investment professionals in an extremely competitive market.

With the increased complexity of financial instruments and the growing emphasis on strong governance through increased regulation, there is also a need to separate the investment functions between the front and back offices. In other words, separate the people who decide on the trades from the people who register the trades and account for and manage them.

Whilst a small team of experienced investment professionals can handle domestic asset classes successfully, the need to diversify into alternative investments, and keep up-to-date with global economic trends and investment techniques, makes it hard for an in-house team to consistently out-perform unless the Fund is extremely large and well resourced such as Harvard or the Ontario Teachers Pension Plan.

As a fund matures it can be more efficient and cost effective to bring some management functions in-house.

Best practice in this area therefore varies across the whole spectrum from funds which manage all asset classes in-house to those that fully out-source and all the combinations between.

### *Form of External Managers:*

The fund of funds model is the preferred multi-manager concept for many major funds and fund managers. By selecting managers with differing risk characteristics and investment processes, broader diversification is possible. This gives a higher risk adjusted expected rate of return and gives better fund performance during different stages of the economic cycle.

Best practice for large funds is also to select managers for individual asset classes rather than balanced funds that are made up of a mixture of asset classes.

### *Proportion of Growth Assets:*

For large funds of a similar nature or purpose to the New Zealand Superannuation Fund, an aggressive exposure to growth assets is to be expected. Most large international funds of this type have an exposure to growth assets (shares, property and alternatives) of between 70% and 90%.

### *Active or Passive Management:*

A major debate amongst asset consultants, investment managers and investors is the pros and cons of active versus passive management. In several academic studies, conducted primarily in the U.S and the U.K. over the last 20 years, passive management outperformed the median active manager.

It is important to note that active investment management is a zero sum game before fees. In other words, the overall return from active management equates to the index. However, it is possible to find active managers whose style and processes do consistently add value (alpha) and enable them to outperform the index.

Active managers charge higher fees than passive and thus have to outperform the index by at least the fee margin to add value. They also have higher turnover within the portfolio and thus incur higher transaction costs. For a few asset classes, experience has demonstrated that active managers outperform passive managers after fees. This is especially true of New Zealand domestic equities over the past several years.

Because of the increased uncertainty of a positive trend in the markets, I also consider active management the most appropriate strategy to adopt for international equities provided the highest calibre of manager available is selected. These managers need to be monitored regularly and replaced if necessary.

An index manager has less risk of losing all their capital on a particular stock. If the corporation failed they would drop out of the index and be replaced. Many passive managers use derivative overlays to replicate the index. However, an index manager would not be protected against a very rapid decline in price because the index tends to be reconfigured quarterly.

An active manager would lose all the capital invested in such a case unless they were able to exit their holdings before the price fell in which case they may perform better

During the decade of the 1990's, the U.S. stock market rose progressively and almost continuously. However, since then the global economy has been more volatile, subject to acts of terrorism, political uncertainty and recently a shortage of commodities, especially oil. From March 2000 to March 2003 global stock markets fell substantially. After a modest recovery they currently appear to be moving sideways despite the massive fiscal input and low interest rates in the U.S. and the concerted action of the world's central bankers to provide an expansionary monetary policy. These changes in the global geopolitical and economic environment suggest that passive investment may become more risky in future because of the increased volatility.

Given the global volatility and the increasing opportunities in alternative asset classes, I consider that a predominantly active investment strategy will both increase the expected returns and reduce the risks of poor returns for large funds.

#### *Risk Budgeting:*

Modern portfolio theory began with the recognition that differing asset classes had different levels of risk (commonly considered as volatility) and different levels of expected return. This enabled efficient frontiers to be constructed under which differing proportions of different assets could be combined to obtain their best rate of expected return relative to a given level of risk.

Most investors are willing to accept some additional risk provided they could expect a comparably higher return. This additional return is called the risk premium. Examples include the equity risk premium, liquidity, credit risk, currency, etc.

Investment theory has moved on to develop the concept of risk budgeting under which the investor's risk appetite is spread in differing ways to maximise the expected return. Risk budgeting allows for greater focus on marginal contributions to risk and return thereby giving an opportunity to maximise the expected risk adjusted return. This recognises the fact that volatility, whilst easy to measure, is not a true representation of actual risk. Furthermore, both risks and returns can vary significantly over time.

When constructing modern portfolios extensive computer modelling is often conducted to evaluate the best combination of asset class weighting and risk to generate the most appropriate expected rate of return for the investor's stated risk tolerance. The levels of risk (tracking error or degree of variation from the index) judged appropriate for the portfolio is spread across the whole range of asset classes and managers.

However, despite these advances and the increasing availability of sophisticated derivative financial instruments, around 70%-90% of a fund's rate of return are still obtained from the asset allocation which primarily depends on the proportion of growth assets referred to earlier.

#### *Currency Hedging:*

Best practice in terms of the New Zealand market for currency hedging up to 5 years ago was to fully hedge international bonds but leave international equities unhedged. Bonds were hedged to reduce volatility and provide greater certainty of return. The rationale for not hedging equities was that the addition of currency risk did not materially alter the risk profile of international equities.

Since the NZ dollar was floated in the 1980's there has been an average risk premium of between 2% - 4% against the U.S. dollar. Research by Lally and others indicates that the risk premium is likely to persist.

Most large New Zealand fund managers now have a 50% benchmark currency exposure for their international equities to take advantage of this currency risk premium.

#### *Ethical Investment*

Ethical investment or socially responsible investment (SRI) is normally practiced through a range of screens or restrictions on the type of entity in which investments can be made. For example, many church groups investment policies prohibit investments in organisations that produce and market alcohol and tobacco.

An alternative (sometimes complementary) approach to ethical investment is to seek to interact with management of organisations whose current manufacturing processes, while possibly legal, impinge on either the environment or populace, e.g. the pay and conditions of workers in third world countries producing mass consumer goods. In these cases the investor or the investor's representative (investment manager) will approach the organisation concerned and seek informally, or through voting at shareholders meetings, to improve the organisation's performance in these areas.

## **Statement of Investment Policies, Standards and Procedures (SIPO)**

After these decisions have been taken they are collated and set into context along with the rationale in the fund's SIPO. This approach is mandatory for superannuation funds in Australia and accepted best practice globally. Having a clear set of investment beliefs, which are well expressed and documented, is important to give the supporting framework on which investment policy should be based.

The SIPO should be formally reviewed at least annually but should always reflect the actual practices of a Fund and so may be amended more frequently.

The SIPO is often referred to in investment mandates with investment managers, to put the funds expectations of an investment manager's performance in a wider context.

## **Corporate Governance**

As mentioned in the introduction to this best practice section, the large U.S. university endowments such as Yale and Harvard have clearly defined best practice.

In summary, such funds comprise:

1. A knowledgeable experienced Board focused on policy and strategy.
2. Sometimes an investment committee made up of Board members, executives and external members also operates and reports to the full Board.
3. A strong team of investment executives also focuses on strategy to advise the Board.
4. A board and executive which should keep up with international trends.
5. Another team of investment professionals within the executive to manage and monitor the whole portfolio.
6. A broadly diversified portfolio comprising all the major asset classes including alternatives.

The board is primarily responsible for an organisation's strategic direction as well as for corporate governance. This means accepting the blame for anything that goes wrong as well as taking credit for things that go right. It is often seen as an expanded management function but this is not seen as best practice. Having established the policies and procedures, the board needs to check that management have carried them out appropriately.

However, in the case of a funds management operation, the board's oversight of operational matters starts by defining the investment objectives and then developing the appropriate investment strategies to follow to achieve those objectives. In that sense, the development and ongoing monitoring of investment policy is more fundamental to the Guardians or another fund manager than a trading company where the board still needs to be concerned about strategic direction but normally relies on management to oversee the implementation of the policy.

To assist in its corporate governance role, a board will normally establish at least two sub-committees namely an audit committee and a remuneration committee

## **Use of External Consultants**

Successful businesses normally have access to a wide range of advisers. Whilst a great deal of intellectual capital can be developed and applied by the Executive and the Board, external advice is generally extremely useful.

This applies across a range of disciplines including the traditional areas, accounting, legal, IT, tax, etc.

In a funds management business it pays to obtain specialist accounting, legal, tax and asset consulting advice from experienced practitioners who assist other fund management operations and thus understand the specific issues which are of particular interest to fund managers and investment operations.

As mentioned earlier, it is important to obtain more than one opinion on a particular issue and also to ensure that the organisation itself fully understands and takes ownership of the solution rather than pay fees to obtain a black box type solution from an external consultancy.

## **Monitoring and Performance**

Continuous quantitative and qualitative monitoring must be an integral part of all investment management operations. Quantitative monitoring should include the regular reconciliation of the investment holdings as reported by the custodian against those reported by each manager. The frequency of this will vary with various factors including the size and nature of the fund, however more frequent monitoring is the trend as improved technology allows more frequent data transfer. Daily reconciliation, normally by the Custodian, is best.

Qualitative monitoring is a less structured and less formal process involving the close monitoring of the investment managers and other service providers for trends and events which might affect their future performance such as changes to key investment staff, investment strategies or company management. The importance of losing key staff must not be underestimated - it is not unknown for funds to be withdrawn from a manager when a key professional leaves, and for those funds to follow that person to their new employer.

Performance reporting normally occurs monthly with a manager's performance being compared to benchmark and any differences being explained through attribution analysis. Quarterly reviews are more thorough with three monthly performance and year-to-date figures together with an update from the managers on the state of the markets and their intended investment strategies.

The monitoring of other service providers such as custodians, transition managers and asset consultants occurs on a more continuous basis because of the more interactive nature of the relationships.

## **Human Resource Policies**

To a much greater extent than with many other organisations, investment management organisations are dependent on having a highly capable, well managed team of professional staff. For this reason best practice centres on developing a strategic human resources framework which includes:

- identifying the job roles and the skills and attributes required for each, including the anticipation of future needs and the way that existing positions may change as a result, or new positions may arise
- the career path by which staff progress to other roles – including training and development needs
- how new staff are to be acquired, and how existing high performing staff are to be retained (including remuneration and bonus structures)
- performance monitoring of staff
- the other resources and management which allow staff to perform at their best

### **Selection of External Advisers**

Best practice in the selection of professional advisers (accountants, lawyers, investment consultants, etc.) is to select a wide list of service providers, possibly screening them for size, reputation in the marketplace, etc. Each prospective service provider is sent a request for a proposal detailing the specific services required, expected performance of the advice, etc.

From the written replies, the list is shortened to a shortlist of 3-5, who are interviewed by the Selection Committee, which is often made up of a sub-committee of the Board and key executives or the Executive in larger organisations. This group normally selects the service provider, sometimes after further enquiries and negotiations as to fees, etc.

Although most service industries are very competitive, it is still important for the client (purchaser of the services) to feel comfortable with the professional firm to be engaged and the particular consultants put forward. In some ways the chemistry of the relationship is as important as the intellectual calibre or reputation of the service provider.

### **Selection of Investment Managers**

The selection of investment managers is generally carried out in conjunction with an investment consultant unless the fund is large enough to have its own in-house investment professionals with appropriate skills. The investment consultant normally prepares a report on the attributes of the specific asset class or style which the fund is wishing to obtain together with a shortlist of say 5-10 managers who may fit the funds criteria to be appointed as investment managers.

The Selection Committee would review the list with the investment consultant and, after deliberation and working through a checklist, shorten it to say 3-5 managers for a specific mandate. The process that would then follow would be an interview with in depth questions and answers, comprehensive due diligence including one or more site visits, selection of the preferred manager by the Selection Committee, further negotiations on fees and conditions, agreement of the investment mandate (contract) and legal sign-off of the appropriateness of those contracts. At that stage the Selection Committee would seek Board approval for the appointment prior to the manager being appointed.

## History of the Fund

The Board was formed in August/September 2002 with David May as Chairman. David May is an actuary with many years experience as Managing Director of Colonial Life NZ. He is also on the Board of the GSF. The Deputy Chairman is Sir Douglas Graham, a former Minister of Justice under a previous National Government. The other Board members appointed were Michaela Anderson, Ira Bing, Brian Gaynor and Bridget Liddell. The Governor-General appointed this team of talented individuals, with a wide range of different backgrounds, on the advice of the Minister of Finance, who consulted with the other political parties, from a short-list prepared by a nominating committee chaired by Vance Arkinstall, the Chief Executive of the Investment Savings and Insurance Association.

The Board chose to appoint a small secretariat of two well-qualified investment professionals on start-up. One of these, Tim Mitchell, was subsequently appointed as the Chief Investment Officer Portfolio Construction.

After a rigorous selection process, which was subject to probity audit, the Board commissioned Mercer Investment Consulting (Mercers) to provide investment consulting advice. They also sought a second opinion from Russell Investment Group (Russells).

In the middle of being advised by Mercer on investment strategy, the Board appointed Paul Costello to be the first Chief Executive. This was an excellent choice because of his leadership skills and ability to build and nurture an investment team, represent the Fund in public and respond professionally to all the requirements of the Board.

The Board also hired Mercer Investment Consulting to assist in the manager selection process.

In July 2003, the Custodian was appointed (BNP Paribas Securities Services). This again was carried out after a thorough search with the assistance of Mercer Investment Consulting.

The Board, supported by its Executive, extensively reviewed Mercer's advice in the light of Russell's second opinion and developed a robust investment strategy. They announced the asset allocations in August 2003. In October they prepared the Statement of Investment Policies, Standards and Procedures (SIPO), which was finally approved on 10 November 2003. This document not only specified the benchmark asset allocation but also specified the way the portfolio was to be constructed. (For the benchmark asset allocation see Appendix C).

In August 2004, the Chief Financial Officer, Stewart Brooks, and an Office Manager, Sheryl Coker were appointed.

In September 2003, the first investment managers were appointed - two New Zealand equity managers (AMP Capital & Brook Asset Management) and an active international equity manager with a low tracking error (Barclays Global Investors).

In October 2003, the Guardians appointed a transition manager and the money began to be placed with the equity managers and a new domestic fixed interest manager (ING).

In November 2003, an international Government bond manager (passive) was appointed – Vanguard Investments Australia Limited. The New Zealand Debt Management Office who had held the funds as they were received, were appointed to execute the foreign exchange transactions.

In November 2003 the Manager Investment Operations, Andy Greening was appointed.

In early 2004, the process of appointing managers continued. In February 2004, Sarah Loutit was appointed as Communications Manager and in April 2004 Paul Dyer, CIO Investment Strategy, was appointed.

Effectively, by the end of June 2004 all the available funds had been invested with fifteen investment managers appointed. One growth manager for global equities, Allianz Dresdner, had been terminated due to staff changes.

This documents the Board and Executive's efforts on the investment front. Over the same timeframe they established the Board and Executive's codes of conduct, hired the Executive, obtained premises and established the operation. An enormous amount of work has been achieved in a relatively short time at very modest cost.

In my view this represents the end of the start-up phase of the Fund in that the listed asset classes had been selected and their various styled managers appointed and funded.

## Methodology

After several briefing sessions with Treasury officials, I set about interviewing the Board and Executive of the Guardians. I had several meetings with Paul Costello (Chief Executive Officer), Tim Mitchell (CIO Portfolio Construction) and Andy Greening (Manager Investment Operations) spread over a number of days. I also interviewed Stewart Brooks (Chief Financial Officer) and Paul Dyer (CIO Investment Strategy).

I had a two-hour interview with David May the Chairman of the Board, a somewhat shorter interview with the Deputy Chair of the Board, Sir Douglas Graham, and interviews with Michaela Anderson, Ira Bing and Bridget Liddell (by phone).

As part of my research I also interviewed senior investment professionals from several Crown Financial Institutions (CFIs) including the Government Superannuation Fund/National Provident Fund, the Accident Compensation Commission and the Earthquake Commission.

Everyone was extremely courteous and helpful and gave me all the support and information I required.

I then compared general best practice for large investment funds with the specific practices of the Guardians. I reviewed the SIPO and checked that it documented the Guardians' current practices. I also checked their practices by raising issues and testing the resulting answers with both the Board and Executive and comparing the SIPO to other material produced by the Guardians and others.

I also conducted extensive research into large investment management or pension fund vehicles offshore including the Yale and Harvard Endowment Funds, CalPERS, the Ontario Teachers' Fund, the Canadian and Irish State Pension Funds and the Norwegian Petroleum Fund amongst others.

I was supplied with extensive information and records from the Guardians' archives. These included Minutes of all the Board meetings, a set of sample Board papers for monthly and quarterly Board meetings, copies of the reports from their investment advisers, Mercer and Russells and copies of internal papers.

A full list of information received is attached as Appendix A.

I also downloaded significant amounts from the Guardians website.

In Appendix B, I list other material researched as part of this review.

## Global Investment Context

For most of last century, the U.S.A. was the economic super power which most strongly influenced the global economy, especially after the Second World War. For most of the 1990's it's economy and stock market enjoyed sustained growth. The U.S. stock market still represents more than half of the world's capitalisation of global stock markets.

Modern telecommunications, the internet and computers have increased productivity enormously. The ranges of levels of sophistication of financial instruments have also increased. More individuals in many countries are investing directly into stock markets, some becoming day traders and margin traders.

The global economy is being affected by major geopolitical trends. The power of the internet to deliver information instantaneously, including pictures, influences stock markets as well as dramatising terrorist attacks, natural disasters and the like. Acts of terrorism have already changed the results of two recent democratic elections.

The trend towards outsourcing is reducing the costs of production, mainly of consumer goods, but also some services such as IT development, call centres, etc. Countries with large populations such as China and India are beginning to consume as well as produce a greater share of the world's resources.

Country groupings such as the European Union and North American Free Trade Association are creating larger markets. Multinational organisations use global production and distribution techniques to continue to generate bigger profits and margins. In emerging markets corporates often have a higher credit rating than sovereign debt!

The price of oil remains high, causing a brake on the global economy's efforts to climb out of recession. Global warming and other natural disasters such as earthquakes, floods and hurricanes seem less predictable but more frequent. The world's central banks try to work together to smooth the impacts of economic shocks and trade and fiscal imbalances in many instances.

Oil prices are likely to stay high (above US\$30 per barrel) driven by excess demand. The demand is created by economic growth in both the developed and developing world. Tensions between consuming nations are likely as they try to secure strategic supplies and to monopolise the oil infrastructure. The Chinese have already invested in pipelines from Russia and the Sudan in order to gain footholds. Supply may be sporadically affected by instability within some of the major producing nations (e.g. Nigeria, Russia and the Middle East). Demand and prices for other industrial raw materials seems likely to stay high, with consuming nations forced to move between suppliers to meet their requirements. This will reduce the world's ability to grow sustainably.

Whilst politicians and bureaucrats are getting better at maintaining stability, the risks of a major event disrupting the global economy and causing permanent paradigm shifts in wealth sectors, markets and daily life are increasing. The level of fiscal deficits and trade deficits, especially in the U.S., has increased considerably in a relatively short time. Global flows of currencies and commodities are also increasing.

With the increasing uncertainty it is important for the Fund to diversify it's investments as widely as possible to minimise the impact of a synchronised poor return in a particular asset class. Hence, my concerns about the current weighting in global equity markets and my support of the Guardians wish to explore alternative asset classes.

## Results

### Investment Objective

The Fund has a long-term investment objective of exceeding the risk free rate of return by at least 2.5% pa over rolling 20-year periods. The investment return is measured before New Zealand tax but after the deduction of fees, transaction costs and foreign taxes, while the risk free rate of return is defined as the average New Zealand 90 day Treasury Bill rate calculated fortnightly.

The investment return has been specified as the net return before any tax payable in New Zealand so as to remove any possible bias towards passively managed funds. It also reflects the total return to the country as a whole (since any New Zealand tax would be paid to the Crown). I agree that this is a reasonable interpretation of the requirement on the Guardians to 'maximise return without undue risk to the fund'. I note that the Guardian's legal advice on this point was of the same opinion.

The 90-day Treasury Bill rate was chosen as the risk free rate because it was felt to both reasonably approximate the opportunity cost of investing, and to be easily understandable and measurable. Since the funds could be invested by the DMO by reducing the issuance of 90-day Treasury Bills, using the average 90-day Treasury Bill rate as the hurdle rate is appropriate.

As mentioned earlier, most fund managers' performance is monitored on a relative basis but in the context of the New Zealand Superannuation Fund, I consider the absolute return target over the risk free rate to be best practice. However it should be recognised as a fairly aggressive target even over a twenty-year time frame because in a small country like New Zealand, with relatively high interest rates, the 90-day Treasury bill rate is likely to be higher than most other countries.

In planning to achieve this 20-year objective, the Fund's performance over rolling five-year periods will represent important milestones. While the Guardians are aiming to achieve similar performance over these shorter periods, it must be recognised there is greater volatility and uncertainty about returns over five-year time frames than 20-year time frames. I support the 20-year rolling period and also the Board's desire to monitor it on a 5-year rolling basis.

The Guardians are also seeking a soft target return of at least 0.5% per annum (after fees) above the relevant benchmark index from the combination of managers for individual asset classes which are actively managed. This means that the minimum out-performance over a passively managed fund expected by the Guardians from the asset classes managed actively is 0.5%. I consider this to be appropriate, although (depending on the individual managers and the way markets change over time) it may well be difficult to achieve consistently.

### Investment Policy

Under the Act, the Guardians must invest the Fund on a prudent commercial basis. They must:

- adopt best practice portfolio management.
- maximise the return 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 Guardians have complete freedom to establish investment policy, adopt standards and procedures for the Fund and decide on the asset allocation for individual types of investments.

An early decision was to appoint a small team of experienced and highly skilled investment professionals to support the Board internally, with additional input being provided by the best available external consultants. The fund was not to manage any assets directly but to appoint external managers to do so. This reflects best practice for a start up fund of this type.

Given the start-up position, it is clear that external management was the only viable solution. In my opinion it is still the preferred model now that the Fund has become more established. This is because it is more cost effective to manage managers rather than try to attract, build and maintain a strong in-house team of talented investment professionals in an extremely competitive market.

In my view the majority of asset classes should continue to be externally managed. There may be some limited opportunities to manage some alternative asset classes, e.g. commodities and possibly private equity in-house later when more internal expertise is available.

After much discussion the Board accepted Mercer's advice to invest 80% of the Fund in growth assets (equities and property) and 20% in defensive assets (cash and bonds or debt instruments). The Irish National Pensions Reserve Fund (also advised by Mercer) has the same broad asset allocation and has been in existence for a similar period.

An informed investor might expect the Fund to be at the top end of the range because of the long time horizon and lack of draw down. However, global markets and the New Zealand dollar are volatile. New funds may be required to take advantage of fresh investment opportunities. The Fund has a high public profile and does not wish to take excessive risk in its formative years. For these reasons it is my view that the 80% of the Fund allocated to growth assets is appropriate and represents best practice at this stage.

The Board chose predominantly active management, rather than a passive indexed approach for most asset classes. I agree with this decision and also their decision to use a low tracking error approach for the core management of global equities. Low tracking error means that the manager does not deviate substantially from the index. This again reflects best practice for large international funds of this type.

The New Zealand tax regime provides a tax advantage to passive funds in that capital gains accrue tax-free. However the losses are not deductible. This makes passive funds more volatile than the equivalent active product. Passive funds are thus more risky. Furthermore, the Guardians pay tax on investment returns to the Government and so the sponsor receives in effect the gross return (both net returns plus tax). This is also the yardstick on which the Fund's performance is measured.

I therefore consider a predominantly active style, possibly with a passive core, is appropriate for equities and global and domestic credit. For international and domestic bonds a passive style is more appropriate since the potential out-performance from active management is more marginal.

To provide additional diversification for the Fund, the Board also chose multiple investment managers with complementary styles for each asset class (that is, a fund of funds approach). This is currently the best model to apply to large funds of this type. The Executive interviewed every institutional investment manager of New Zealand equities in the market and took several months to decide on an appropriate breakdown of sub-categories within the New Zealand equities asset class.

The Guardians were conscious of the possible impact of investing a large amount into the New Zealand equity market. A transition manager was retained to reduce the market impact of the Fund's initial transactions in the domestic and international markets, whilst also reducing transaction costs.

No funds were invested until the Board had decided the structure of the Fund, the asset allocations and the way each individual asset class was to be managed (portfolio construction).

When the actual investment process began, the Board, for practical reasons of time and cost, instructed the Chief Executive to concentrate first on the most liquid and easily accessible asset classes; New Zealand bonds and New Zealand equities and international bonds and international equities.

Being small, the New Zealand market has a relatively low number of diversified domestic equity managers. In that context the Guardians have done well to structure separate mandates for the three New Zealand equity managers chosen so far.

- AMP Capital manage a low tracking error active portfolio benchmarked to the NZSX50.
- Brook Asset Management manage a more aggressive portfolio than AMP benchmarked to a modified NZSX50 with a maximum exposure of 15% to any one stock.
- Fisher Fund Management manage a small/medium cap portfolio.

This provides an appropriate level of diversification within the New Zealand marketplace.

The Guardians undertook an extensive risk budgeting exercise to compare the net of fees gross return of active and passive managers across a wide range of traditional asset classes. They chose to passively invest the portfolio of domestic sovereign bonds and half the international bonds but correctly in my view invested actively in both domestic and international equities. They chose an active NZ credit manager and an active international credit manager is still to be appointed.

On currency hedging, Mercers recommended to the Guardians 75% and Russells recommended an even higher hedging percentage of the international equities exposure. The Board had intensive discussions and requested further modelling work of their consultants. The Guardians chose to hedge their international equities exposure at 60% initially, subject to more research becoming available. They have since moved to 72.5% hedged, which is high relative to the private sector funds management industry whose benchmark is 50%.

Whilst the New Zealand dollar is close to its recent highs against the U.S. dollar, I believe the Guardians do reflect best practice in having a relatively high proportion of their international equities hedged at present because it captures the marginal gain from the NZ dollar premium.

In investment strategy the Guardians have moved beyond the standard efficient frontier of modern portfolio theory and use a more focused risk budgeting technique.

Although they are considering managers for credit risk opportunities, they have over-weighted their passive global bond manager at the outset so that the funds are invested in the market and earning market returns. Further work on the credit side has been timetabled for early next year when resources permit.

On the individual manager selection, the Guardians have developed their own conviction rating system, which is similar to most asset consultants' rating scheme systems. It goes into the workings of the particular fund manager in more depth and detail than many analysts who cover a wider universe of investment managers. They subscribe to the Mercer research database and test their conviction of managers with other consultants and managers' clients.

This system works well but once the existing managers have been re-assessed it will be important for the CIO Portfolio Construction, to develop a reserve list of replacement managers.

The Guardians have also raised for further research the influence that such a large fund, reaching approximately 40%-50% of annual GDP, may have on the economy. They have commenced discussions with the Reserve Bank over the influence it may have on interest rates and the currency.

For the investment manager fees of traditional asset classes, I expect the overall fee to drop by one basis point a year over the next five years as the Fund grows and volume discounts apply. Note however that initially much of the Fund was in Treasury Bills so the average fee to 30 June 2004 was lower than that applying currently when the funds are all invested. My comment about fees reducing does not apply to alternative asset classes where the fee structure is much higher but the expected returns (after fees) are also significantly greater.

The Executive is currently researching securities lending as an additional way of increasing the returns on the Fund and plans to evaluate its fee structures and performance fees next year.

A full table of the Guardians' managers and their asset allocations, both benchmark and actual, is attached as Appendix C.

Overall I consider the Board's performance on investment policy to have been good when the timeframe and available resources are considered. My only comments would be that:

- Of the allocation to international growth assets, there is a high allocation to listed equities (currently 60% of the Fund). I suggest that the longer-term exposure to alternative asset classes be increased to between 15% - 25% to diversify the Fund's exposure to those growth opportunities. This could only be done after the appropriate research had been completed. At that stage the exposure to listed international equities could be reduced.
- These shifts in asset allocation should be carefully managed over time as appropriate investment opportunities occur.
- the absence of a reserve list of managers should one of the current group of managers perform poorly and need replacing. The CIO Portfolio Construction is working on this.

Additionally, under the Act, the Guardians are specifically charged with the responsibility to not prejudice New Zealand's reputation as a responsible member of the world community. This requires the development of a particular policy of responsible investing which to date is not a common feature of other funds. The research to date does not support or reject the hypothesis that responsible investment adds value. In other words, it does not demonstrate that investment returns are improved. However, the additional layers of governance do increase costs.

The Board has implemented its responsible investing programme. Because of its mandate, the Board has also established a Responsible Investment committee. The assets of the Fund are screened regularly and a policy is in place to notify the Board of any investments which fall outside the screening parameters. The Board also has a policy for dealing with such notification and removal of the inappropriate asset if necessary. This again reflects best practice.

### **Appropriateness of the SIPO**

The underlying investment philosophy is clearly documented in that the Guardians seek to spread the risk across well-priced, lowly correlated assets and investment markets. The Guardians seek to only invest where they can confidently expect to get enhanced returns. I consider their comments on risk premiums and imperfect markets helpful to the broader investment community as well as clearly documenting their fundamental investment rationale. This again represents best practice.

The Guardians SIPO has already gone through four iterations, the last of which was approved by the Board on the 28<sup>th</sup> June 2004. This version is available on the Guardian's website.

The first interim policy was developed and approved by the Board on 13 October 2003. This version was revised with effect from 10 November 2003 and the section on derivatives modified. The areas of ethical investments and the Board's policy of amending the voting rights of the stocks held by individual investment managers were reviewed in March 2004.

In my opinion the current SIPO appropriately reflects the Guardians investment philosophy and appropriately records their governance cycles in terms of monitoring investment performance quarterly, reviewing the custodians and investment managers monthly, etc.

The SIPO clearly documents the benchmark asset allocations, the split between active and passive mandates, level of currency hedging and expected performance from individual managers relative to their individual benchmarks, which I also consider to be appropriate in each case. There are specific sections on ethical investment, use of derivatives and retention of voting rights by the Board.

I confirm that the Guardians have complied with the SIPO in all material respects.

### **Governance**

The Guardians operations across most aspects of their organisation represent best practice, as appropriate to the New Zealand Superannuation Fund.

Their model for investment management, recruitment and development of staff and progress to date has been best practice for a start up operation. The implementation of the Fund thus far has been good.

However, in order for it to be maintained further resource needs to be allocated in the areas of alternative asset class research and strengthening and retaining the internal investment team.

Their internal corporate governance is sound and the transition from a start-up board without an executive to a board overseeing a strong team of executives is working smoothly in my view.

The Manager Investment Operations has worked extensively with the Custodian, BNP Paribas Securities Services, to develop its services to the Guardians. As a result the performance reporting standards and overall level of confidence in the data have increased considerably since the relationship began. Further enhancements are currently underway.

Increased efficiencies will be gained and costs saved on transitions as in-house expertise is applied.

The investment managers report daily to the Custodian and the Custodian reports daily to the Manager Investment Operations. The data is reconciled daily by the Custodian which again represents best practice.

This gives a good check on the funds under management. There is a monthly report from each of the senior executives to the Board and, in addition, the Board receive an annual report independently from the Custodian.

#### *Board Committees*

- The New Zealand Superannuation Fund has three Board committees. While ultimate responsibility rests with the Board, the objective of the committees is to assist and advise the Board.
- Members are appointed for an initial term of three years.
- The Audit and Governance Committee oversees the financial reporting of the New Zealand Superannuation Fund, internal risk controls and governance systems.
- The Committee consists of two members of the Board – Dr. Michaela Anderson (chair) and Sir Douglas Graham. The Committee meets as frequently as required, but not less than five times a year.
- The Responsible Investing Committee researches, develops and implements policy, standards and procedures in relation to responsible investing, including investing to avoid prejudice to New Zealand's reputation as a responsible member of the world community and encouraging best practice corporate governance by investee companies.
- The Committee consists of four members of the Board - Ira Bing (chair), Dr. Michaela Anderson, Sir Douglas Graham and Bridget Liddell. The Committee meets as frequently as required, but not less than five times a year. This committee has researched the implications and consequences of responsible investing and has established a strong process after taking legal advice and sought Board approval to amend the investment policies and SIPO. The Board now uses SIRUS for Australasian securities and Innovest for international securities to screen all the investments of the Guardian's portfolio for such risks and advise the Board on an exception basis.

- The Employee Policy and Remuneration Committee ensures the human resources policies and practices of the organisation are appropriate and consistent with its statutory obligations.
- The Committee consists of two members of the Board - David May (chair) and Sir Douglas Graham. The Committee meets as frequently as required, but not less than twice a year.

The Executive and Board have maintained good corporate governance over the investment managers and Custodian. They instruct investment managers to vote on shareholder issues in the interests of the Fund. They have implemented separate policies on entertainment, expense allowances, etc.

I have been informed by the Guardians' staff that no soft dollar commissions have been offered or received. Soft dollar commissions are special purpose research, entertainment or staff amenities which investment managers pay clients or research houses for services rendered. There have been no issues of mutual fund market timing as has caused concern in the U.S.

The investment policies, standards and procedures established by the Guardians are appropriate to the Fund. They have been complied with in all material respects.

The Board and Executive have been careful to document their decisions and diligent in compiling their research notes. As a result I believe the body of information available on the policies, standards and procedures of the Fund to be excellent at this point.

The best practice performance processes which been developed are an integral part of the Guardians corporate culture and history. As time passes and the Fund grows, it will be important to ensure that new Board members and employees understand that corporate culture and history.

Three annual Statements of Intent have been produced which reflect top level planning however a detailed business operating plan for the 2004/05 year was not submitted to the Board for formal approval until recently. Early in 2004 the Guardians requested of Treasury an increase in the appropriation from the level of prior years. Without evidence of a robust planning procedure, Treasury was unable to advise the Minister on the appropriate level of appropriation for the 2004-2005 financial year. It was subsequently agreed to defer that process until the results of this review were available.

I consider the Guardians internal controls, risk management systems and reporting to both the Board and to the public to have been excellent.

The Board wishes to improve its performance further and has sought and obtained an independent review of its dynamics and performance from BoardWorks International. They also subscribe to Cost Effective Measurement Inc, a Canadian based monitoring service for large investment funds. This operation was developed by Keith Ambachtsheer, a recognised commentator on pension fund excellence. Seeking external benchmarking of their performance and that of the Fund also represents best practice.

### *Interaction Between the Board and Chief Executive*

I have researched this area by studying Board minutes and briefly interviewing the Chairman, Chief Executive, other Board members and senior staff.

The interactions between the Board and the Chief Executive have been excellent. Mr May has been a very good Chairman who supports the Chief Executive and the Executive well.

The intensive nature of working together as a start-up board has made the current Board members into a tightly knit team. It will be interesting to see whether the addition of two new members affects this.

Overall, I rate the Board's governance sound.

### **Investment Management Agreement**

I have reviewed the generic investment management agreement and have concluded that it is suitable for the purpose. In particular I note that (as required under the Act) it specifically prohibits borrowing and prohibits the use of derivatives except where specifically authorised.

Individual mandates are constructed around a specific index (where appropriate) and specify the tracking error allowed. They also sets ranges on the upper and lower bound around individual sector allocations and specify the maximum cash exposure (which must be in banks A1-rated or higher). The reporting deadlines the Guardians impose on the manager are specified, as is the reporting relationship with the Custodian.

### **Operational Effectiveness**

#### *Composition of the Board*

When first appointed, the Board comprised a number of investment professionals with varying types of experience and investment expertise. The initial Board did an excellent job in establishing the operation, building a framework for its investment strategy and corporate governance and developing and nurturing the operation in conjunction with the Executive to the stage it has now reached.

However, due to a potential conflict of interest, one of the Board members with specialist investment expertise resigned. Two new appointees were recently appointed to replace him. Whilst the Board has operated effectively to date, I consider that more specialist investment skills would be helpful to the Board in pursuing the next phase of their investment policy into alternative asset classes.

As the development into alternative asset classes continues, the required skill set of Board members may also change.

#### *Investment Committee*

The best practice investment committee consists of a relatively small team of between 4 to 10 people comprising board members, the Executive and regular external advisers. In the case of the Guardians, who have a small Board, the full Board is the investment committee. As mentioned above, this has performed well to date but I perceive the need for broader ongoing strategic advice from external sources in addition to the Board members and Executive.

The Executive is proposing an external expert adviser group which, in conjunction with the Board and Executive, would fulfill the same purpose as a more widely appointed investment committee. I therefore support this initiative.

### *Staff*

The Guardians has a staff made up of a small number of highly skilled professionals. Human resource issues are managed by the Chief Executive and overseen by the Board.

I have reviewed the human resource policies set up to date and am satisfied that they have met the day-to-day needs of the Guardians to date. Employment contracts meet the requirements of the current legislation including the recent changes to the Holidays Act.

I consider that the Board and Chief Executive have done an excellent job in recruiting the current team of investment professionals.

Where I see a need is in the development of longer term strategic human resource planning. To date the CEO has been able to attract a very effective professional team, however more work is needed as to how to retain those staff. The stimulating job, nurturing by the CEO, public recognition, pleasant working environment and opportunity to travel to research international investment managers, other large funds and gain professional development are all positives.

Nonetheless this is an important area and one that should be given priority. Senior investment professionals are a highly sought after and mobile resource. High performing staff are not a commodity and the difference in performance between a top performer and an average one is usually considerable. The loss of any of the current staff would be a significant setback, particularly as no contingency planning appears to have taken place. A further issue will be the need to decide what skills will be required once the Fund is more diversified particularly how much in-house expertise will be needed to research, monitor and possibly manage some of the Fund's alternative assets.

### *Use of External Advisers*

The Guardians philosophy has been to establish strong working relationships with able external advisers and service providers. This does not preclude the Guardians from changing advisers nor from seeking alternative advice where appropriate.

To date the Board and Executive have sought advice from a wide range of organisations and investment professionals. I consider this approach to have been successful.

In the selection of professional advisers the Guardians went one step further than normally accepted best practice in the private sector in that they appointed a probity auditor to ensure that the selection process for advisers was totally open and transparent.

The development of the relationships with, for example, the Audit Office, tax advisers, custodian, transition manager, legal advisor and investment advisers have all proved valuable.

Mercer Investment Consulting were chosen to assist with the strategic asset allocation and portfolio construction because the Guardians felt not only did Mercer have the requisite skills but also that they could constructively include Mercer in their team. This approach resulted in initial draft advice which raised some vigorous discussion and debate. From this the

Guardians were able to reach some certainty over what they wanted to achieve, gain further certainty and conviction through the alternative advice of Russells and achieve a final result which was rigorous and robust.

The choice of Mercer Investment Consulting as the primary investment adviser was sound given the availability of advisors in the New Zealand marketplace. Their input gave the Board and Executive an opportunity to discuss and develop a robust investment strategy and process. Russell's second opinion similarly helped by confirming the general tone of Mercer's advice, even though their recommended asset allocation and advice on currency hedging was slightly different.

Going forward, the Guardians subscribe to Mercer's manager research database. Watson Wyatt are also consulted for a second opinion on some manager selection while Russells are consulted on strategy matters. Further advisors are being approached to assist with alternative investments.

#### *Negotiation of Fees with Investment Managers*

When negotiating fees with prospective investment managers, the Guardians applied a consistent process. In the request for a proposal, an indicative fee was sought. Once initial due diligence had taken place, the preferred short-listed managers were requested to quote their most competitive fee.

Most investment managers came back with a better quotation than their original estimate (between 10%-20% lower). Most also agreed to be bound by the most favoured client arrangement, in other words, offer the Guardians a fee rate no higher than other customers of similar scale. In addition, the manager's fee scale decreased with increasing funds under management, so that clear economies of scale could be gained as the Fund grew in size.

The Board and the Executive applied that process consistently across all the investment managers on the short-list. The final fee offered was either accepted or rejected taking into account the usual fee range for the particular mandate in the market concerned. Whether the manager has capacity constraints or not may obviously influence their willingness to negotiate.

This process again reflects best practice.

Investment managers' fees do not contain a performance component except for one.

One area that the Guardians are currently exploring is whether performance based fees should be strongly sought or whether the current practice should continue. Performance fees have intuitive appeal but are more difficult to manage and quantify in practice. Further work should be done in this area.

In my opinion all the fee rates negotiated were competitive and reflect value for money.

#### **Investment Performance to 30 June 2004**

The investment performance of the Fund to 30 June 2004 has been satisfactory. The annualised rate of return after fees for the 9 months ending 30 June 2004 was 10.4%, against a target return of 7.8%.

Since the Fund is still appointing investment managers, and has not been invested for a full year, only a limited analysis of the performance of the Fund as a whole is possible. New managers are being introduced and the actual asset allocations are currently somewhat different to the benchmark asset allocations intended for the long-term. At this stage no alternative asset class managers have been appointed. The holdings in equities have been slightly increased as substitutes in the meantime.

I have therefore restricted myself to more general comments about the performances of the current managers and the sectors they are invested in. Given the longer time frames over which the fund is to be managed and the effects of the initial transition overheads, the returns discussed below should only be taken as initial indications of the eventual performance of each manager.

### *Fixed Interest*

The Fund uses ING to manage its New Zealand fixed interest, which comprises a mixture of passive sovereign (New Zealand Government bonds) and active credit (good quality corporate debt securities).

The active credit portfolio made a cumulative return of 3.6% against a benchmark of 3.4% since it was first funded in December 2003. The credit quality of this portfolio is high. As might be expected, the passive sovereign portfolio has largely tracked the benchmark index since first being invested in November 2003. As a result of using fixed interest as a proxy for its allocation to New Zealand property, the Fund was slightly over-invested in the passive sovereign portfolio (10% compared to the benchmark asset allocation of 8%).

The Fund uses Vanguard to manage a largely passive portfolio of international sovereign debt with a low tracking error. Since first being invested in December 2003 it has returned 3.3% against a benchmark return of 3.6%. I understand that much of this was due to transaction costs during the start up and transitional interest rate mismatches against the benchmark.

This mandate also serves as the proxy for global property and global credit. As a result, the Fund is currently considerably over-invested in this portfolio (14% against a benchmark asset allocation of 5%). An active global credit manager has yet to be appointed.

### *New Zealand Equities*

The Fund was over-invested in New Zealand equities (9.94% against benchmark of 6.25% for the three current managers, or 7.5% for the sector). AMP and Brook have been deliberately over-funded until another manager is appointed. This is in part as a proxy for New Zealand alternative assets for which managers are yet to be appointed.

The three managers (AMP, Brook and Fisher) all made their initial investments in December 2003. Since then AMP (with a low tracking error active mandate benchmarked against the NZSX 50 Gross index) has marginally under performed (12.6% against benchmark of 13.0%), while Brook (with an active mandate benchmarked against the modified NZSX 50 Gross index with exposure to any one company capped at 15%) marginally under-performed its benchmark (11.3% versus benchmark of 11.5%). Fisher with its composite small and medium cap portfolio comfortably outperformed its benchmark with a cumulative return of 14.4% against its benchmark of 11.3%. Overall the New Zealand equities portfolio with 13.2% was slightly above its weighted benchmark of 13.0%.

### *International Equities*

International equities are intended to make up the largest single portion of the fund (60%). To mitigate the investment risk these have been split over large/mid cap stocks (45%), small cap stocks (12%) and emerging markets (3%) and within these there is a spread of managers with different investment styles.

### *Large/Medium Cap*

The managers used include an active low tracking error manager (Barclay Global Investors), an active growth manager (Alliance), and two active value managers (Bernstein and LSV). A further growth manager (Allianz Dresdner) had been discontinued during the quarter due to concerns about internal staff changes. A replacement growth manager has yet to be appointed.

The portfolio continues to be heavily over-invested in Barclay's portfolio (33.9% vs benchmark of 14.5%) due to it serving as a proxy for a number of other asset classes. Since inception in November 2003 Barclay's have been marginally (0.2%) above their benchmark return. Alliance Capital and Bernstein have a similar mandate and benchmark index, although LSV was funded slightly earlier. Broadly, LSV was 1.1% above its benchmark return of 8.8%, while Bernstein under-performed their benchmark of 3.8% by 0.5%. Alliance has been invested for too short a time for a meaningful commentary or analysis.

### *Small Cap*

By the nature of the small cap market, small cap managers have to remain relatively small players so as not to unduly influence the markets they invest in. For this reason they can only absorb relatively small volumes of investment funds, so the Fund's mandates here have been kept relatively small. To date the Fund has appointed two U.S. value managers (Goldman Sachs and Thompson, Siegel and Walmsley), a U.S. growth manager (Numeric) and two specialist managers for non-U.S. small caps (AXA Rosenberg and Grantham, Mayo and Van Otterloo).

All have been invested for too short a time (1-2 months) for a meaningful commentary or analysis of their performances.

### *Emerging Markets*

West has been invested for too short a time for a meaningful commentary or analysis.

Given the transitional state of the Fund, and the short periods for which most of managers have been invested, I consider the performance of the managers to date to be satisfactory. The important issue is not the performance to date but whether the overall Fund strategy developed to date is correct. Overall, I consider this to have been achieved to a high standard and in a remarkably short time.

## Current Position

Overall the Fund is delicately poised.

The initial start up has been successfully accomplished. The platforms of an investment policy and strong executive have been developed. The bulk of the managers for listed assets have been researched and appointed.

The next phase of development is about to begin. This consists of a consolidation or maturing of the management of listed assets and increased efficiencies from economies of scale as the Fund grows and some of the executive move from research into implementation.

At the same time the research into alternative asset classes, which is a totally new area, is being developed and managed as a prelude to making investments in these sectors.

The outcome of this research should provide far better risk-adjusted returns. However alternative asset classes are illiquid and varied. A range of implementation issues needs to be explored and resolved for each category. Care must be taken to ensure a successful outcome.

At the same time the executive should be strengthened and efforts made to retain key staff to enable the rate of progress to be maintained.

### *Development of in-house resources and future plans to accommodate the prospective growth of the Fund*

The Minister of Finance has made it clear that the same budget procurement process is to apply to the Guardians as to other Crown agencies.

Under the Act the Guardian's operating and research costs come from appropriation while the Fund's operating costs are met from the Fund itself. The Guardians are required to determine what is to be paid through appropriation and what is to be paid through the Fund. The Auditor-General is responsible for ensuring this is done in a manner consistent with the Act.

An ongoing dialogue between the Executive and Treasury has resolved much of the funding issue. However, I have been specifically asked to address the matter of funding in this report.

The Act has been carefully worded to clearly separate the functions of the Guardians from involvement from politicians or bureaucrats.

The Minister of Finance may direct the Guardians to take a particular course of action but the Guardians are not obliged to follow his direction.

The apolitical nature of the Fund is important for its ongoing viability and success. Treasury has been scrupulous in adhering to this requirement.

It is essential for the well-being of the country that taxpayers' funds are carefully spent and that no wastage occurs.

Whilst the Guardians have done an excellent job in developing their investment strategy and placing the funds for traditional asset classes into the markets, the next phase of the investment programme to spread the risk and enhance expected returns is in the area of alternative asset classes.

I consider alternative asset classes essential for a fund of this type and size because it provides a greater degree of diversification and thus a higher risk adjusted return.

Also a variety of alternative asset classes not only have no or negative correlations to traditional asset classes but they also provide opportunities to earn absolute returns with less volatility.

Both the Yale and Harvard Endowment Funds have over 50% in alternative asset classes.

Specialist advice will be needed in each of the areas of private equity, commodities, infrastructure, property and hedge funds. Each area of alternative assets needs specialist skills and expertise. The research process starts by obtaining top-level advice on how each sector works, the risks, likely returns, expected volatility, key players, etc. Then more detailed advice is needed by drilling down to research the range of entry strategies available, which specialist consulting firms can assist and on what basis, availability of advisers and whether suitably qualified personnel may be interested in assisting as "internal consultants".

This is what is required to evaluate the most appropriate entry strategy for each alternative asset class.

Then comes the work to prepare for implementation again through finding the most efficient entry mechanism and developing the Guardian's knowledge and understanding to the extent that full conviction into the appropriate implementation strategy is obtained.

Next is the process of implementation followed by ongoing monitoring and possibly management if carried out in-house. This will also need specialist risk management and compliance processes. The current senior investment professionals have initiated research into these areas.

The research then needs to be analysed and disseminated through the Executive to the Board after having first been reviewed externally by appropriate advisers.

As the Fund grows and the alternative asset classes become an important part of the Fund, more in-house expertise (additional specialist staff) will be needed. In particular, I consider it essential that the Fund have a very strong in-house team that is supported by a wide range of strong external advisers and the peer support of other mega fund managers around the world.

Eventually I would expect a specialist private equity manager to be appointed in-house who would either manage specific investment deals or select private fund of fund private equity vehicles. Specialist internal managers for other alternative asset classes may also be required.

Given the broad based asset allocation and the opportunities available in alternative assets, I believe the growth of the Fund can be sustained with the timely investment of the on-going capital injections from the Crown.

## Recommendations

### *Research into Alternative Asset Classes*

Alternative asset classes require far more sophisticated and intensive research in order to develop an investment strategy which is most likely to generate higher than expected returns and thus be successful. There are relatively few established investment professionals with the requisite skills.

Detailed research is required before any investment can be made and even then there is a lot of on-going work in order to monitor the positions and ensure that the appropriate investments or managers, depending on whether it is an investment in one particular private equity fund or fund of funds, should be maintained and remain profitable.

I recommend that additional funds, totalling \$250,000 in the current financial year, be allocated for the Guardians to access external professional advice into alternative asset classes. This should be an extra allocation over the above the existing allocations for advice on traditional asset classes and on-going research into general investment policy work.

I recommend that a further \$250,000 be appropriated the following year with this amount reducing to \$200,000 for the subsequent year. The timing of all the research needed may vary depending on the opportunities available and the directions taken. I have assumed that some areas will be worked on concurrently and that in the third year predominantly advice into implementation alone will still be needed.

### *Staff Resourcing*

As mentioned previously, I consider the Board to have done an excellent job in recruiting the Chief Executive, who has subsequently assembled a strong team of investment professionals in support. More resource will be needed internally to enable sufficient research to be carried out to invest effectively and profitably in alternative asset classes. Although the current team is very capable and can handle its current areas of responsibility, more work is needed.

While there is an awareness of the risks involved within the Guardians, I am concerned at the absence of succession planning in that each senior investment professional is handling their workload and area of responsibility almost on an individual stand-alone basis, albeit as part of a small close-knit team.

I am also concerned at the potential risk of a particular staff member being poached to fulfil their responsibilities in some international location. Whilst this is always a risk in any organisation, it is particularly important to the Guardians because of the relatively short time it has been in operation and the pace at which policy is being developed and implemented.

Recently there have been several examples of whole investment management teams being poached away. For example, Tower's domestic equity team was poached in Australia, the CIO of Colonial First State left and took the bulk of his equity team to Challenger and more recently Perpetual took four senior investment professionals from Bank of Ireland to establish their international equities in-house fund management operation in Dublin.

Whilst the Guardians cannot hope to compete on the basis of international salaries, it would be shortsighted in my view to rely on lifestyle and the job satisfaction inherent in this exciting new venture to retain people for the medium term.

I therefore suggest the implementation of a bonus pool of somewhere between 20% and 50% of the investment professionals' salaries to operate as an incentive and retention tool. The bonus allocation would normally be a function of the individual's performance, the performance of that section of the Fund's operational responsibilities and the performance of the Fund as a whole relative to its absolute return benchmark. Furthermore, any bonus allocation could be distributed in three equal tranches to provide some degree of lock-in. Continuity of service would be a pre-requisite to receiving the deferred compensation amounts.

### *Funding*

I have specifically reviewed the Guardians business plan and operating budget for the three years commencing 1 July 2004 in the context of my overall review of the Guardians operation. I consider I have a good understanding of the Guardians strategic direction and how they plan to develop the Fund over the next three years.

In that context I consider the proposed operating expenditure to be realistic and necessary if the Guardians' operational goals are to be achieved over the three-year timeframe.

Their annual budget may be summarised as follows:

	\$ million
Board related expenses	0.3
General governance/administration	1.3
Investment policy development	1.8
Investment operations	0.6
Risk management/Financial control	0.7
Total	4.7

Note that the budget for investment policy development includes an amount of \$250,000 for research into alternative asset classes which is the same as the figure I came to independently.

The bulk of the funding is for on-going research into general policy development including salaries. It also includes additional expenditure to ensure the Guardians develop their contact with external investment experts and those associated with other large funds and large investment managers. This will assist the Guardians continue to carry out their mandate as a best practice investment operation.

I also consider it appropriate for this item of expenditure to represent the largest budget allocation. Investment policy is critical to the achievement of a sound investment performance.

Should my suggestion of a bonus programme for staff retention be accepted then an additional budget allocation for a bonus pool will need to be made.

## International Large Fund Comparisons

There are a number of international funds intended to accumulate assets over the long to medium term to meet future pension or other anticipated needs. Most are much larger than the New Zealand Superannuation Fund.

These funds typically have a life cycle which include:

### **Initial set-up and asset allocation**

This is the initial stage when (usually) an initial lump sum has to be invested to set the fund up.

### **Asset accumulation**

Once the fund has been set up it will typically go through a stage where the existing assets are invested. Often additional capital is being allocated but it has not yet reached the stage where any funds are being drawn down.

### **Draw down**

Existing assets are invested, little or no new capital is being invested and funds are being drawn down. In some funds (e.g. U.S. university endowments) the rate of capital draw down might be matched to income so that the fund is able to continue in this state for a long period. In other cases (e.g. to meet a fixed term liability of relatively few years) the fund's capital might be progressively and deliberately drawn down.

### **Fund Termination**

Where the fund has served its purpose and the assets have largely been distributed then it may be closed down and cease to exist.

Two of the funds considered were large U.S. university endowment funds. They are similar to the New Zealand Superannuation Fund in that they are large funds managed for a long-term return, however they are unlike the New Zealand Superannuation Fund, at this stage in its life, in that they are expected to provide an annual draw down, largely to contribute to the operation of the university and its research.

The large U.S. university endowments have an extremely high weighting in alternative asset classes. This is in contrast to many of the European national funds which have a more traditional asset allocation. In my view, a somewhat higher weighting than the 13% in the current Guardians asset allocation model would be appropriate in future. It will take time to develop this area because a great deal of internal and external resource is required to carefully and effectively enter these more complex investment markets.

As a side issue, the wisdom of the New Zealand Government in deciding not to constrain the investment management of the Fund is obvious. A number of European funds prohibit investment in specific asset classes which must distort the overall effectiveness of their portfolios.

The asset allocations are extremely diverse and varied. In themselves no particular pattern is demonstrably superior as is indicated by the following indicative examples.

	Yale	Harvard	Average U.S. Educational Institution	Government Petroleum Fund	AP4	NPRF	CALPERS	Ontario Teachers' Pension Plan
<b>Bonds</b>	7	17	21	60	35	20	26	12
<b>Domestic Equities</b>	15	15	40		25		39	20
<b>Foreign Equities</b>	15	15	14	40	40	80	19	26
<b>Alternative Assets</b>	63	53	25				16	42

### Harvard Management Company

The largest U.S. university endowment fund, with around US\$18 billion in assets. Harvard manages the majority of its assets actively using an in-house team of investment professionals, rather than outside investment advisors or passive investment strategies. The substantial bonuses paid to some staff in recent years have caused controversy. This is hardly uncommon in the investment management industry, but it has drawn an unusually large amount of attention to HMC.

The firm invests in a variety of asset classes including U.S. stocks and bonds, international stocks and bonds, private equity funds, real estate, and commodities. Of particular note is its 50% plus exposure to alternative assets.

### Yale Corporation

The second largest U.S. university endowment fund, with around US\$11 billion in assets, largely built up over the last twenty years from endowments and investment income. Approximately 80% of funds are true endowment (gifts restricted by donors to provide long-term funding for designated purposes) with the remainder being quasi-endowment, monies which the Yale Corporation chooses to invest and treat as endowment.

The Yale fund has a reputation for innovation. A key investment principle has been to pursue diversification and to reduce market exposure to publicly traded equities and instead focus on less liquid assets such as private equity, venture capital, hedge funds, gas, oil and real estate. Their philosophy has been that alternative assets are typically less efficiently priced than traditional marketable securities, providing an opportunity to exploit market inefficiencies through active management.

Manager selection is regarded as critically important, far more so than in more liquid asset classes. This diversification strategy is credited with helping to protect Yale from the harsh economic conditions that hurt other endowments in 2001. On the other hand, it has drawn criticism from some staff and students who have felt that some of the fund's investments have been less than ethical. SRI guidelines for the fund have evolved from this.

Yale invests little in bonds due to the relatively low expected return because of the lower risks in the bond markets.

## **CalPERS (US)**

The California Employee's Retirement System is the largest public pension fund in the U.S. and the third largest in the world, with assets currently around \$164 billion.

The CalPERS Board of Administration invests and has sole fiduciary responsibility for the management of the assets. The Board is assisted in this by the CalPERS Investment Committee and management. Asset classes invested in are principally equities and alternative assets.

## **Ontario Teachers' Pension Plan (Canada)**

The Ontario Teachers' Pension Plan is a defined benefit scheme, which has net assets of over C\$75 billion. The Government of Ontario and Ontario Teachers' Federation are the plan's co-sponsors. These sponsors appoint the Plan's board of directors, which has equal representation from each sponsor.

Since there are approximately 0.6 pensioners for each contributing member, the fund has high current liabilities that must be met from the fund. In January 2004 the plan had a shortfall of assets compared to the cost of future benefits of C\$6.2 billion, the first funding shortfall since it was created in 1990.

## **AP4 (Sweden)**

The Swedish First to Fourth (AP1 to AP4) Swedish National Pension buffer funds resulted from a restructuring of existing pension funds in 2001, with each receiving assets worth about US\$14 billion.

AP4 is the most aggressive of these and has around 42% global equities, 19% Swedish equities and 37% bonds. It recently announced that it would not be investing in hedge funds due to the overall 5% limit on alternative assets applying to all Swedish public pension funds.

## **National Pensions Reserve Fund (Ireland)**

The Fund is intended to provide for the largest possible pre-funding of social welfare and public servants' pension requirements from 2025 until at least 2055. It is funded from the net proceeds of the sale of the state telephone company plus a sum equivalent to 1% of GNP annually, and had a value of €8 billion in April 2003.

Core governance principles in the legislation establishing the Fund were:

- it is managed by commissioners who are independent of Government.
- the investment strategy must be based on a commercial investment mandate with the objective of securing the optimal return over the long term, subject to prudent risk management.
- no drawings from the Fund before 2025.
- it is expressly precluded from investing in Irish Government bonds (to ensure its integrity).
- it should have full transparency and accountability.

Mercer assisted in the development of the strategic asset allocation, which was eventually based on an 80/20 equity bond split. An average equity risk premium of 3% per annum was assumed.

### **Government Petroleum Fund (Norway)**

This was established in 1990 to invest part of Norway's oil revenues, with the objective of accumulating assets for the government against the time when future pension liabilities have risen.

The Ministry of Finance sets the benchmark and investment strategy, while the fund is managed by the Norwegian Central Bank. The entire fund is invested outside Norway, with the holding in any one firm limited to 3% of its share (or voting) capital. The manager may vary the portfolio only to the extent that annualised expected tracking error stays within 1.5% of the benchmark.

The Ministry of Finance decides the long-term strategy and defines the benchmark portfolio. Norges Bank is responsible for implementing this strategy and for active management. In addition, the Bank provides advice to the Ministry concerning the choice of the long-term investment strategy for the Petroleum Fund.

In the management regime chosen, the total return of the Fund is essentially determined by the strategic decisions on the composition of the benchmark portfolio. This is because the risk taken in active management is small in relation to the total risk in the benchmark portfolio.

Note that the Fund achieved positive active returns over each of the six years to 2003. This suggests that active management can add value.

## Other CFI's

When reviewing other large funds in a New Zealand context, a similar pattern of diversity of style and structure became apparent. I specifically reviewed the Government Superannuation Fund (GSF), National Provident Fund (NPF) (two large defined benefit schemes closed to new members), ACC (a growing fund to cater for accident compensation claims which are short to medium term in nature) and the Earthquake Commission's Natural Disaster Fund (EQC), which needs to be relatively liquid in case of a major natural disaster.

The large defined benefit funds are both closed to new members. The NPF also has a number of multi-employer and personal cash accumulation schemes which are open to new members. Although the GSF Fund is growing it is likely to reach its maximum size in the next five to ten years before beginning to diminish. Both the NPF and GSF have independent board of directors who use a secretariat rather than a strong internal investment team. This is appropriate given the fact that the funds are not likely to grow substantially beyond their current size.

The ACC is unusual in New Zealand in that it follows the Harvard and Ontario Teachers model of predominantly managing the assets in-house. Because of the relatively short-term liabilities, the bulk of their investment management is in cash and bonds and this can be done more cost effectively through in-house management. They also manage Australasian equities in-house.

The EQC has used a secretariat approach to date but plans to bring more investment function in a monitoring sense in-house. The full Board remains the Investment Committee. However, they also have a very small team of competent investment professionals who are able to support the Executive and Board.

As mentioned previously, the scale of these funds is of a totally different order of magnitude to the potential growth of the New Zealand Superannuation Fund. It is therefore appropriate in my view that the investment models followed differ somewhat from the Guardians.

## Appendix A - Materials Provided by The Guardians

30 June 2004 NZS Fund Manager Fact Sheets  
Andy Greening; Itinerary for discussions with BNP Paribas (September 2004)  
BNP Paribas; Recent Invoice  
BNP Paribas; Report for Year ended June 2004  
BoardWorks; "Governance Effectiveness Review"  
Cost Effective Measurement Inc – Sample global fund report  
Frank Russell; "Review of Asset Allocation Strategy"  
Frank Russell; "Review of Portfolio Structure"  
Full set of Papers for the August 2004 Board Meeting and additional reports for July  
Generic Investment Management Contract  
Guardians of New Zealand Superannuation Statement of Intent –  
1 July 2003 to 30 June 2006  
Guardians of New Zealand Superannuation Statement of Intent –  
1 July 2004 to 30 June 2007  
Guardians; Statement of Investment Policies, Standards and Procedures  
as of 10 Nov 2003  
Letter from Mr Costello to Treasury re Guardians Funding Model  
Letter from Scott McHardy (Treasury) to Mr Costello re funding of Guardians  
Mercer; "Portfolio Construction"  
Mercer; "Strategic Asset Allocation"  
Minutes of Guardians Board Meetings from inception to May 2004  
New Zealand Superannuation Fund – Annual Report 2003  
New Zealand Superannuation Fund – Financial Statements 30 June 2003  
P Costello and T Mitchell, "Strategic Asset Allocation & Portfolio Construction"  
June 2003  
Mr Dyer; NZSF's Currency Exposures (July 2004)  
Philips Fox; Opinion re Insurance Cover for Board Members  
Philips Fox; Report on duties and obligations of the Guardians of NZ Superannuation  
Revised Guardians Budget Model  
Sample employment contract.  
Sample Manager Conviction Assessment – WestAM  
T Mitchell; Providing Flexibility Without Losing Accountability –  
A Review of the Funding Model For The NZSF  
Mr Mitchell, "Investing For the Long Term"  
Minister of Finance, Letter re Approval to Borrow, Enter Into Derivative Contracts  
and give Indemnities  
Guardians: Business Plan 2004/05 Financial Year  
Guardians: Draft Operating Budget for Three Years commencing 1 July 2004

## Appendix B - Additional Research Material Consulted

30 Years On (Review Of ACC History And Development)  
Annual Report of the Harvard Management Company (2002)  
Bovinette, Band. Elkins, Richard G; Commonfund Commentary (2004)  
    "Small endowments versus large: A closer look at returns and asset allocation"  
Brian McCulloch And Jane Frances; Financing New Zealand Superannuation  
    (Treasury Working Paper)  
Brian McCulloch Jane Frances; Governance Of Public Pension Funds:  
    New Zealand Superannuation Fund  
Brian McCulloch; Long-Term Market Return Assumptions For The 2002  
    December Economic And Fiscal Update -  
Brian McCulloch; Long-Term Market Return Assumptions For The December 2001  
    Economic And Fiscal Update  
Brian McCulloch; "EsMrating The Market Equity Risk Premium"  
Ferrell Asset Management; Asset Allocation And Absolute Return Strategy -  
Guardians of New Zealand Superannuation Statement of Intent  
    1 July 2004 to 30 June 2007  
Guardians of New Zealand Superannuation Statement of Intent  
    1 July 2003 to 30 June 2006  
Iglesias A and Palacios RJ (2000); Managing public pension reserves Part I:  
    Evidence from the international experience  
IMF Country Report No. 04/127; (2004) New Zealand: Selected Issues  
KP Ambachtsheer; Pension Fund Excellence;  
Lane PR; The National Pensions Reserve Fund:  
    Pitfalls and Opportunities Trinity College Dublin and CEPR  
McCulloch Brian; Geometric Return and Portfolio Analysis  
National Pensions Reserve Fund Commission Annual Report &  
    Financial Statements 2003  
National Pensions Reserve Fund Review 2003  
NZ Superannuation Bill Nov 2000  
NZ Treasury; "Macro Effects Of The Proposal For Pre-funding  
    New Zealand Superannuation"  
NZ Treasury; "New Zealand Superannuation Fund Contribution Rate Model  
    Modelling Guide"  
Ontario Teachers' Pension Plan: 2003 Annual Report  
Ontario Teachers' Pension Plan: 2003 Financial Statements  
Palacios R; Securing Public Pension Promises through Funding  
R. Kent Weaver; Whose Money Is It Anyway?;  
    Governance And Social Investment In Collective Investment Funds \*  
The Yale Endowment Annual Report (2003)  
Vincent JA; "Ageing Societies and New Forms of Global Political Economy."

## Appendix C – NZSF Asset Allocations as at 30 June 2004

		Month First Funded	Actual Value \$NZ mill	Actual Asset Allocation	Benchmark Asset Allocation - Current Managers	Sector Benchmark Asset Allocation
<b>NZ Fixed Interest</b>						
ING	Passive Sovereign	Nov-03	393.70	9.88%	8.00%	
ING	Active Credit	Dec-03	78.90	1.98%	2.00%	
<i>Sector Total</i>			472.60	11.86%	10.00%	10.00%
<b>International Fixed Interest</b>						
Vanguard	Passive Sovereign	Dec-03	560.50	14.06%	5.00%	
<i>Sector Total</i>			560.50	14.06%	5.00%	10.00%
<b>NZ Equities</b>						
AMP	Active	Dec-03	172.60	4.33%	2.50%	
Brook Asset Management	Active	Dec-03	172.30	4.32%	2.50%	
Fisher Funds Management	Active	Dec-03	51.20	1.28%	1.25%	
<i>Sector Total</i>			396.10	9.94%	6.25%	7.50%
<b>Global Equities - Large/Medium Cap</b>						
Barclay Global Investors	Active – Low tracking error	Nov-03	1,350.80	33.89%	14.50%	
Allianz Dresdner (discontinued)	Growth	Jan-04				
Alliance Capital Management	Growth	Jun-04	252.80	6.34%	6.50%	
Bernstein	Value	Mar-04	202.80	5.09%	5.00%	
LSV AM	Value	Feb-04	214.70	5.39%	5.00%	
<i>Sector Total</i>			2,021.10	50.71%	31.00%	44.50%
<b>Global Equities - Small Cap</b>						
AXA Rosenberg	Non-US	May-04	121.60	3.05%	3.00%	
Grantham, Mayo & Van Otterloo	Non-US	Jun-04	121.00	3.04%	3.00%	
Numeric Investors	US Growth	May-04	81.10	2.03%	2.00%	
Goldman Sachs AM	US Value	Jun-04	40.30	1.01%	1.00%	
Thompson, Siegel & Walmsley	US Value	May-04	82.20	2.06%	2.00%	
<i>Sector Total</i>			446.20	11.20%	11.00%	12.00%
<b>Global Equities - Emerging Markets</b>						
West AM	Emerging Markets	Jun-04	79.40	1.99%	2.00%	
<i>Sector Total</i>			79.40	1.99%	2.00%	3.00%
<b>Alternative Investments</b>						
<i>Sector Total</i>					0.00%	13.00%
<b>Cash</b>						
BNP Securities Services (custodian)	Cash		9.50	0.24%	0.00%	
<i>Sector Total</i>			9.50	0.24%	0.00%	0.00%
<b>FUND TOTAL</b>			<b>3,985.40</b>	<b>100.00%</b>	<b>65.25%</b>	<b>100.00%</b>