



**Submission to the Savings Working Group
Guardians of New Zealand Superannuation**

September 2010

The scope of our submission

The Guardians of New Zealand Superannuation submission is confined to the 'Fiscal Policy' section of the Savings Working Group (SWG) Terms of Reference.

We do not discuss the 'Taxation' or 'Kiwisaver' aspects of the Terms of Reference.

In our submission, we primarily:

- set out the importance of savings and investment to economic growth; and
- outline the role of the NZ Superannuation Fund in contributing to New Zealand's savings and to the broader savings and investment environment.

Executive Summary

The importance of investment to economic growth

The *quantity*, *quality*, and *ownership* of investment greatly influence the economic prosperity of a nation and its citizens. Investment in people (knowledge) and technology (equipment and infrastructure) plays the critical role in promoting sustainable economic growth.

Savings is the stock of financial resources available to invest. The acts of saving and investing are mirror images of one another.

The level of dependence on foreign savings, and the resulting form of foreign investment (e.g., short-term debt versus long-term equity) influence national wealth and financial vulnerability. The *ownership* of capital determines who profits from its use. Improving the level of domestic investment and its quality will lead to improved productivity and economic welfare.

Within a country, there is considerable interaction between households, firms, and the government's saving and investment activity. This interaction occurs since these groups all share many of the same sources of income, and are mutually dependent on one another for various forms of saving (e.g., health and accident insurance, retirement income, and education services).

The *ownership* of capital determines who profits from its use

New Zealand's savings and investment performance

When compared to other OECD countries, New Zealand has a:

- relatively low level of savings held in the form of financial assets, and a relatively high level held in the form of equity in residential property;
- high dependence on foreign savings, with a relatively large proportion of this foreign investment intermediated through the banking sector in the form of mortgage loans; and
- low capital-to-labour ratio, especially infrastructure-related capital.

This savings and investment history in large part explains New Zealand's relatively low productivity **level**, in particular the low capital-to-labour ratio.

New Zealanders' preference for equity in home ownership as a form of investment reflects historical experiences, some advantages of this asset class relative to others (such as familiarity, the ability to leverage, and tax advantages), and a lack of accessible and/or easily comprehensible alternative investment options.

Recent changes made to property tax, the wealth gradually accumulating in Kiwisaver accounts, and the impact of the 'PIE' regime should alter investors' choices towards financial assets going forward. However, we do not yet have data to assess the impact of these policy changes.

Improving New Zealand's savings environment

Creating the environment and incentive to save is critical to determining both the quantity and quality of domestic investment. Improving the environment for saving and investing means ensuring people have:

- access to comprehensible savings advice and investment instruments; and
- confidence in the institutional structures that minimise future uncertainty related to economic growth, inflation, and related investment transaction costs

There are well-identified challenges to creating this environment, including:

- reducing the cost and complexity of comparing savings and investment options, especially as to whether they represent value for money and an appropriate risk profile;
- improving the investment-grade savings options for individuals;
- improving access to low-cost, large scale, global savings vehicles (e.g., as emphasised in the Cooper Review);
- ensuring an accessible, liquid, low-risk yield curve against which more risky investment returns can be assessed;
- improving public access to domestic investment options that are privately, collectively, or cooperatively owned; and
- considering an annuities market that may assist those retiring in future years.

Many of the issues outlined above are also evident in the Australian savings industry. This was recently outlined in the Cooper Review, which concluded that the wide range of savings options, the difficulty of assessing value for money, and the lack of economies of scale and scope in many of the funds, could lead to unnecessary costs and a lack of investor trust. Many of these issues were also covered from a New Zealand perspective, by the recent Capital Markets' Taskforce.

The 'buffer' role of the New Zealand Superannuation Fund (Fund)

The Fund is one of New Zealand's few large, liquid, truly long-horizon savings funds.

The Guardians role is to manage the Fund consistent with the legislated mandate. The first payments from the Fund are not scheduled until 2031, providing considerable scope for investment activity.

Due to the deliberately selected risk-return profile of the Fund, the Guardians are confident of adding many billions of dollars (in present day terms) to Government (and national) savings over coming decades. These are investment returns over and above the alternative Government saving option of reducing Government debt.

In conducting our investment activity, the Guardians are also confident of improving New Zealand's savings and investment environment. We aim to do this by:

- applying our capacity to invest in long-dated productive assets;
- growing parts of New Zealand's capital markets, via adding liquidity to debt and equity markets, promoting sound governance practices in companies we invest in, and developing our specific New Zealand investment strategies; and
- accessing international investment expertise and capital to New Zealand's advantage.

I. The importance of saving and investment to economic growth

The quantity and quality of investment determines economic prosperity

Combining people, knowledge, and physical resources enables economic activity and wealth to be created. The smarter that people utilise their limited resources, the more sustainable is their growth in wealth and resource use, and the more choices they will have in life.

It is *investment* in people (knowledge) and technology (equipment and infrastructure) which plays the critical role in promoting sustainable economic growth. We discuss the link between investment and economic growth more fully in Appendix 1.

Saving equals investment

The central role investment plays in promoting sustainable economic wealth is clear. Less clear, is how to create the environment to promote investment.

At the beginning there must be an available pool of investment capital – or savings. Saving is the difference between income and spending (i.e., saving is deferred consumption or gratification). When an individual, firm, or government saves, they are by definition spending less than they earn.

If a person saves some of their current income then they should store this *saving* in a form that will adequately compensate them for their 'deferred consumption'. That is, they should *invest* their savings in a manner that adequately compensates them for future growth, inflation, and all related uncertainties. If they don't, then they will be economically worse off. Saving and investment are thus a mirror image of one another.

The quality of investment matters most for prosperity

In a closed economy, the level of savings is equal to the level of investment. In an open economy, where capital can flow between national borders, the level of investment is no longer constrained by the level of domestic savings.

There are important relationships between savings and investment, and the role of foreign savings:

First, the level of economic growth depends on both the *quantity* and *quality* of the investment being made. A nation can both under and over save, just it can invest successfully and unsuccessfully. It is the return on investment that matters most to savers.

For example, all savings could be held in the form of cash stacked under a mattress. In this extreme example, cash under the mattress will not compensate an investor for future inflation or economic growth, nor will it lead to an increase in the stock of productive assets or generate future income. The quality of investment matters most for future economic prosperity.

Second, if foreign investment is used to make up for a domestic savings shortfall, then the returns to that investment (i.e., profits) belong to the foreign investor. The ownership of capital determines who benefits from the profit and the wealth of a nation.

Third, the motivation, or purpose, for saving varies significantly. These varied purposes will be a key influence on the preferred form of investment.

For example, an individual will be motivated to save and invest by their precautionary savings needs (i.e., in case of an accident or loss of income through ill health); their targeted savings needs (i.e., for a specific event such as a holiday or a home); and their lifecycle needs (e.g., for retirement income). The motivations for saving will lead to specific forms of investment.

Fourth, there is considerable interaction between households, firms, and government's savings and investment decisions given that they:

- share some of the same sources of income related to New Zealand economic prosperity (i.e., wages, profits, and taxation), and
- are mutually dependent on one another for forms of investment (e.g., the provision of housing, health and accident cover, retirement income, education, and so on)

One outcome of this interaction is that a rise in one sector's savings (e.g., government) may lead to a decline in another sectors (e.g., household's), leading to a less dramatic change in overall national savings. An extreme example of this at present is in Japan, where household savings are very high, in large part offsetting the very low level of Government savings.

Finally, the form in which investment is made is important for economic growth and financial stability.

For example, if foreign capital is accessed in the form of short-term loans, then there is a strong debt-servicing commitment unrelated to the success or otherwise of the investment made. The cost of this borrowing will also be dependent on a host of factors, few of which are the in control of the domestic borrower. By contrast, if the access to foreign savings comes via direct long-term equity investment, there may be considerably less short-term financial vulnerability and more alignment of interest.

The dependence on foreign savings, and the form in which these are invested, significantly influences a nation's financial stability and vulnerability

The level of dependence on foreign savings, and the form in which these savings are accessed (e.g., debt versus equity and short- versus long-term commitments), greatly determines a nation's financial stability and vulnerability.

Saving is the pool of capital available to invest – saving and investment are a mirror image.

Foreign investment can be used to make up for any domestic savings short fall. However, the form this investment takes can influence a nation's financial stability. The returns to investment belong to the owner of the capital.

The quantity and quality of investment both matter for economic prosperity, with the type of investment made influenced by the purpose of the savings, and how government, businesses, and individuals interact.

II. New Zealand's saving and investment performance

The quality and availability of New Zealand's savings data is highly variable. There is also, at times, confusion over 'flow' measures of saving and 'stock' measures of savings. The flow of saving is the difference between income and expenditure. The stock measure of saving is the pool of net financial and non-financial assets held by an individual, firm, or the government. These measurement issues are well canvassed in the Treasury's recent background paper to the SWG, and in economic documents published previously by the Reserve Bank of New Zealand and by Treasury. With these caveats in mind, New Zealand's savings landscape has the following general features:

New Zealand's savings rate (national income minus national expenditure) is low as a per cent of GDP compared to many OECD countries. New Zealand is a high net user of foreign savings (investment) to make up for the domestic saving-investment shortfall, as evidenced by high foreign indebtedness and ongoing current account deficits.

At present, in flow terms, New Zealand's savings-investment deficit is made up of household and government sector deficits, offset in part with a business sector surplus.

In stock terms, all three sectors of the economy have positive net equity (or wealth) positions. For households, a significant proportion of this measured wealth is in the form of equity in their home, with a relatively small proportion held in the form of financial assets. This bias towards saving in the form of housing equity is high by OECD standards and brings with it certain investment vulnerabilities (e.g., geography and asset class concentration, and illiquidity) that could instead be diversified away.

However, there is a data gap. Assets held abroad by New Zealanders are only captured in official statistics if intermediated through the domestic funds management industry. This data gap may be larger for New Zealand than some other OECD countries given the high proportion of New Zealanders who have worked outside of the country¹.

Comparing the stock of savings (or wealth position) across OECD countries, New Zealand has a relatively low level of *financial* assets compared to total assets (with the measurement caveat above noted), and a relatively low level of household wealth compared to GDP. This cross-country comparison reflects relatively low economic growth compared to other OECD countries and low domestic savings rates.

Foreign investment into New Zealand makes up for any domestic savings shortfall. Much of the foreign capital inflow comes in the form of short-term debt via bank borrowing and is re-intermediated by the banking sector – dominated by the four major Australian-owned banks – as mortgage lending. The banks' reliance on short-term borrowing and the concentration of banking intermediaries leaves the New Zealand economy vulnerable to changes in global financial prices, the health of Australia and the Australian banking system, and changing global risk appetite for New Zealand assets. However, some of the 'liquidity risk' related to short-term borrowing is being mitigated by recent changes to the Reserve Bank of New Zealand's liquidity requirements. This policy requires banks to fund more of their lending from domestic deposits and longer-term wholesale liabilities.

¹ Statistics NZ has in fact very recently (September 2010) used tax data to infer overseas income earned and paid by trusts and partnerships, which are not captured in the usual surveys. The impact of this is to reduce the deficit balance on income.

The high reliance on foreign capital brings with it a high proportion of foreign ownership of New Zealand's productive resources, and a lower share of profits (the returns to investment) accruing to New Zealanders. This is reflected in the difference between Gross Domestic Product (goods and services produced in New Zealand) and Gross National Product (goods and services consumed by New Zealanders).

In part as a result of the relatively low level of financial assets held by New Zealanders, and the dominance of banks in financial intermediation, New Zealand's capital markets (i.e., non-bank intermediation) are relatively shallow in product offerings (issuers) and available demand (investors). We discuss this challenge in Section IV.

New Zealand has a low level of labour productivity growth compared to many OECD countries. In large part, this results from a low **capital-per-unit of labour** ratio, in particular infrastructure capital.

Consecutive New Zealand governments have played a significant role in both the provision of national savings and individuals' savings decisions. Government involvement in the saving-investment environment is both direct and indirect. The direct contribution occurs via the Government's fiscal position (surplus or deficit) and the Crown's net worth. The New Zealand Superannuation Fund is one part of Government saving and forms part of Crown's net worth (see the next section).

The indirect influence of Government on the level and form of savings in New Zealand includes:

- institutional structures that in part determine the level of uncertainty around economic growth, inflation, and access to capital;
- the tax environment which can influence the level and type of saving;
- the quantity and quality of the Government's provision of various forms of precautionary savings and investment e.g., the provision of retirement income, health cover, accident cover, and public education; and
- uncertainty related to the provision of social services, stability of economic policies, and levels and types of taxation.

Insufficient and poor quality investment can lead to low productivity levels. New Zealand's relatively low productivity results in part from a low capital-to-labour ratio.

The interaction between Government's and individual and business investment habits is very high. In most part these relate to developing an environment in which people have the incentive and confidence to invest for the future. We discuss these environmental issues in Section IV and Appendix 1.

The New Zealand economy has a:

- low level of national savings held in the form of financial assets;
- relatively high dependence on foreign savings, with a large proportion intermediated through the banking system for residential lending; and
- low capital-labour ratio (especially infrastructure related capital), which in part explains New Zealand's relatively low productivity level.

III. The New Zealand Superannuation Fund’s contribution to savings

In this section we discuss the expected contribution of the New Zealand Superannuation Fund (Fund), as a long-term savings (investment) vehicle, to New Zealand’s savings. We acknowledge that the New Zealand Superannuation (NZS) scheme was specifically excluded from the SWG’s Terms of Reference and so make no comment on its design.

In framing the context of the Fund, it is useful to refer to the ‘three tiers’ of retirement income provision set out in the Treasury’s Discussion Paper (see Table 1). This illustrates where the Fund sits relative to the provision of NZS, and therefore its ‘savings’ function.

Table 1: Three Tiers of Retirement Income	Role served by	Purpose	Comment
Tier 1 – Mandatory, adequacy	New Zealand Superannuation (NZS) NZS Fund – partial pre-funding of future NZS payments	Universally available, basic retirement income	<ul style="list-style-type: none"> Indexed to median wage Available to eligible New Zealanders aged 65+
Tier 2 – Mandatory, savings	Compulsory savings accounts (e.g. work-based schemes)	Supplementary individual retirement income	NZ does not have such a scheme
Tier 3 – Voluntary, savings	Kiwisaver	Supplementary individual retirement income	Incentivised

Why the Fund exists

For more information see the Why We Exist section at www.nzsuperfund.co.nz

The establishment of the Guardians (the investment organisation) and the New Zealand Superannuation Fund (the pool of financial resources the Guardians manage) was a government response to the multi-generational issue of an ageing population and the associated rising cost of NZS.

The establishment of the Guardians is an effort to smooth the rise in the proportion of total tax revenues needed to meet Superannuation costs in coming decades. Over the next 20 or so years, the Guardians will invest current and future Crown financial contributions to the Fund. The Fund will then be used to assist in the future payment of NZS.

How the Fund works

For more information see the How the Fund Works section of our website at www.nzsuperfund.co.nz

Partially pre-funding the future cost of NZS means that future Governments do not have to seek as much from future New Zealand taxpayers to meet the cost of NZS when it is increasing most sharply (we have dealt in further detail with what will influence that cost in Appendix 2). Prefunding can also bring other benefits such as increased certainty as to the affordability of future NZS, and increased investment activity and deeper capital markets.

The interaction between the Fund's performance and the Government's pre-funding is thus limited to influencing one of the Guardians performance benchmarks (i.e., the opportunity cost measure of the interest cost on gross public debt), and the direct linkage between the Fund's returns and the size of future government capital contributions necessary to achieve the tax smoothing.

Measuring the Fund's performance as a savings vehicle

For more information on how we structure and benchmark our portfolio, see [Structuring the Fund on www.nzsuperfund.co.nz](#)

We are very conscious that a government has choices to make with the use of its tax revenue. It could *spend* the revenue on various public services, or it could *save* the revenue by either establishing a savings vehicle (e.g., the Fund) or reducing gross Government debt. Under both scenarios, the Government's net debt/asset position remains the same. However, the Government's assets change via the savings vehicle in the sense that a 'mission-specific' such vehicle brings with it an explicit ability to achieve the purpose for which it is established. This is similar to a household having, for example, a mortgage and a retirement-specific savings account (e.g. via Kiwisaver).

Clearly then, the Government's decision to save via the Fund establishes an immediate 'performance benchmark' for the Guardians: the Fund's returns should be compared to the alternative (or opportunity cost) of the Government using the money to retire some of its debt (the Government's other savings option).

Treasury Bills (short-dated debt instruments issued by the Government for liquidity purposes) represent the most 'risk-free' interest rate cost to the Government and hence are our benchmark against the 'lowest risk' savings alternative for the Government. We note that the Government can raise debt in many maturity buckets. However, longer dated instruments do not represent the 'lowest-risk' debt-raising alternative as they have 'term risk'.

We are deliberately seeking investment risk when investing the Fund (for more information on how we structure and further benchmark the performance of the Fund, see Appendix 2), we expect that the returns from the Fund will, over time, be greater than the interest costs saved from paying down Government debt i.e., we expect to add wealth by being rewarded for the financial risk we are deliberately accepting. This expectation is based on economic logic, long-term historical investment performances, and our modelling of likely future outcomes. This research is supported by global expert opinion and the global investment practice of the vast majority of long-term endowment and pension funds.

Long-term historical outcomes

For more information on the performance of the Fund since inception, on a monthly basis, see Performance on www.nzsuperfund.co.nz

Table 2 below shows performance of the US equities market against US Treasury Bills (T-Bills) from the beginning of the 20th Century until August 2010.² Over this period equities in the US (and globally) went through periods of short-term annual fluctuations exceeding 30% or more, including during the Great Depression, the oil crises of the 1970s, the US savings and loan crisis of the early-1980s, 'black Friday' in the mid-1980s, the Asian financial crisis of the 1990s, the bursting of the "dotcom" bubble in 2000, various SARs and global pandemic scares, and the recent global financial crisis.

Despite these incredibly disconcerting periods, on average US equities outperformed T-Bills by 6.1% per annum on a compounding return basis. We also see a similar average performance post-WWII and in the last twenty years.

More important perhaps is the chance of equity returns outperforming public debt yields over any randomly chosen medium-term period. The first capital contributions to be made from the Fund are not scheduled until 2031, so we use a 20 and 30 year horizon in our assessments.

Using the same long-term data, and undertaking a simple consecutive 20-year performance test, Table 2 highlights that a growth orientated fund like ours would have produced financial returns in excess of Treasury bills 100% of the time when measured over 20 years. That is, in any randomly chosen 20-year period since 1900, returns on US equities were ahead of returns on US Treasury bills when measured over the 20 year period.

Moreover, equity returns exceed Treasury bills by at least 2.5% around 80% of the time. The underlying economic rationale for this 'outperformance', and the historical performance, gives us confidence that a well managed, diversified, growth portfolio is our best means of maximising returns without undue risk.

Table 2: Historical Outcomes Period	US equity returns	Excess US equity return over T-Bills
1900-2010 (whole sample)	10.1%	6.1%
1946-2010 (post-WW2)	11.6%	6.2%
1990-2010 (last twenty years)	8.1%	4.4%
Portion of time US equity returns exceed T-Bills over rolling 20-year periods since 1900		
	Exceed T-Bills	Exceed by 2.5% per cent per annum or more
	100%	80%

Notes: US equity returns are total returns on the S&P500 index, i.e. returns include dividends. Returns are expressed on an annualised geometric basis. Data source: Global Financial Data

² We use US data to look at historical performances because it is consistently available over long periods and, at least post-WW2, represents the dominant fraction of world equity markets. Over the period for which the world MSCI benchmark index is available, returns have been comparable to US markets.

Expected future performance

Our modelling of future outcomes for Treasury bills, equities, and other growth assets (such as timber and property) is based on history, global research, and expert judgement both by the Guardians and global investment experts.

Our expectations for future risk and returns are captured in our Reference Portfolio development (previously our Strategic Asset Allocation review). The Reference Portfolio outlines our long-run assumptions for the risk premiums (i.e. excess returns over T-bills) we expect to earn on listed asset classes such as global equities, and the volatility in returns we can expect along the way. Consistent with our investment mandate, the Reference Portfolio has a high allocation to growth assets (around 80%).

In general, relative to history, the risk premium assumptions we employ for the Reference Portfolio are conservative. For example, our assumed global equity risk premium is 3.5% (compared to the 6.1% outlined in the above table). In contrast, we assume return volatility (i.e., the expected likely annual variability in financial returns) will be around the same level as seen in history. We explicitly account for 'extreme' events like the GFC that can cause very large short-term losses in risky assets.

Even with these conservative assumptions as to how financial returns will behave, we still expect our Reference Portfolio to outperform T-Bills by around 2.3% per annum on average over the next 20 years. Using empirical techniques that allow us to develop a wide range (50,000+) of possible outcomes in the future, we estimate that there is an 85% likelihood of outperforming the Treasury bill return over the next 20 years, and a 90% likelihood over the next 30 years.

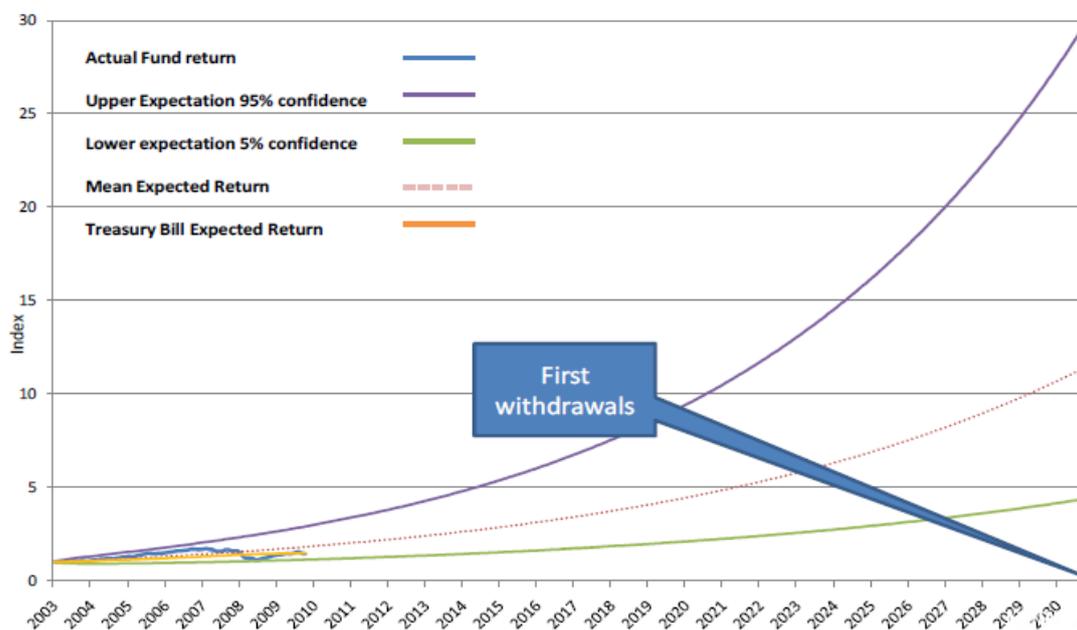
Another way to view the expected net financial benefit of investing in the Fund versus retiring short-term Government debt is to express this difference in a (inflation-adjusted) dollar value. In Table 3 below we show the expected present dollar value over a 30-year period.

To make this meaningful we have included expected resumption dates for capital contributions, the timing of which are dependent on the Government's fiscal position (currently scheduled for 2020). Note that these figures are for both the *Reference Portfolio* and the Fund's *Actual* performance. We expect the latter to be materially better through the application of our active investment strategies (by around 1.0% per annum on average).

Table 3: Present Value of Expected Returns	Expected outperformance of Reference Portfolio over T-Bills after 30-years	Expected outperformance of Actual portfolio over T-Bills after 30-years
Crown capital contributions start date	(in 2010 NZD)	(in 2010 NZD Billion)
5 years time	\$58 Billion	\$78 Billion
10 years time	\$44 Billion	\$60 Billion
15 years time	\$39 Billion	\$52 Billion
25 years time	\$34 Billion	\$46 Billion
No resumption	\$33 Billion	\$44 Billion

Figure 1 below outlines our expected financial returns in graphical form, looking ahead to 2031 when the first capital withdrawals are anticipated by Treasury. The figure highlights our 'median' return expectation (as outlined above) and plots this against our estimate of the return to 90-day Treasury bills (i.e., the 'lowest-risk'). Also marked out is the 95% confidence interval for the expected returns. As can be seen, this range is very wide, albeit with the significant likelihood that the Fund's actual returns will be ahead of these 'lowest-risk' returns.

Figure 1: Actual and Expected Fund Returns



As can be seen, the investment life of the Fund is very young (around 7 years) compared to its investment horizon. The Fund's returns since inception are slightly ahead of the Treasury bill returns, despite having suffered significant volatility during the Global Financial Crisis. The latter is estimated to be a 1 in 80 year type event. However, our 'confidence interval' estimates going forward include such events occurring again.

Table 4 below summarises our response to some common statements about the Fund. The Table covers off some of the most often repeated comments as to whether it is better to save in the form of reduced debt or a dedicated pool of financial assets, and whether saving in the form of holding equity in productive assets is more or less risky for a government than an individual.

Table 4: Common Statements about the Fund and our Response

Statement	Response
<p>“We are not really saving if you still have outstanding debt obligations”</p>	<p>The difference between paying down Government debt and contributing capital to the Fund is fiscally equivalent in the short-run. In both cases the Government’s saving and its net debt position is same.</p> <p>However, the form of saving and the impact on wealth is not equivalent over longer-term horizons, as the returns on the Fund should be higher (due to the deliberate higher risk-return profile) than the interest saved on Government debt.</p> <p>Saving in the form of the Fund also brings commitment and certainty to future tax payers and NZS recipients, and removes the ability to use this tax revenue for alternative purposes.</p> <p>The Fund also alters the investment diversification of the Crown balance sheet, and makes future government revenue less dependent on the New Zealand economy alone.</p> <p>Of course, however, there will be times when the level of a Government’s gross debt inhibits its ability to borrow. This example was witnessed across many OECD countries post the GFC, where reduced government debt commitments were considered optimal.</p>
<p>“It is not sensible to invest in equities when you also have a mortgage”</p>	<p>Saving can be done by developing a financial pool of assets and/or reducing a mortgage debt. Both bring specific benefits and risks, and their relative merits should be considered against their specific purposes.</p> <p>However, a government investing in a long-term diversified fund can better manage its investment risks than a household due to its long investment horizon and varied sources of liquidity. That is, a government has less risk of needing to sell their assets rapidly when their value may be temporarily low.</p>
<p>“If Kiwisaver was compulsory, prefunding NZS would not be necessary”</p>	<p>The desired level of retirement income is an individuals’ choice, related to their desired lifestyle and ability to save (invest) while working.</p> <p>NZS is designed as a Tier 1 scheme to ensure universal access to a basic retirement income. In this regard, NZS is a complement to, rather than substitute for, personal retirement income.</p>
<p>“New Zealand is worse off with the Fund because it has not outperformed the risk-free-rate of return”</p>	<p>The Fund’s return since its inception in late-2003 is broadly in line with the 90-day Treasury bill on a time-weighted basis. Fund returns are behind T-bill returns on a money-weighted basis however, with capital contributions to the Fund being suspended in mid-2009.</p> <p>More generally, the returns from the Fund need to be considered over a relevant time horizon, say at least 20+ years. The Fund is purposely growth-oriented due to its long investment horizon. This enables the Guardians to purposely take on investment risk to be rewarded an investment premium.</p>

IV. New Zealand's Savings and Investment Environment

Creating the environment and incentive to save is critical to determining both the quantity and quality of investments made. In large part it is a chicken and egg situation. An environment conducive to saving is also an environment conducive to sound investment and is characterised by people having:

- the information and confidence to make long-term decisions (related to their precautionary and targeted savings needs);
- access to comprehensible savings advice and savings (investment) instruments; and
- confidence in the institutional structures in an economy that reduce future uncertainty around the non-diversifiable risks related to economic growth, inflation, and related transaction and agency costs (as discussed in Appendix 1).

Saving challenges

As outlined by the Capital Markets Taskforce, and previous Reserve Bank of New Zealand speeches and discussion papers, New Zealand has unique challenges in developing a sound saving and investment environment. Some of the unique challenges to promoting saving and financial investment in New Zealand include:

- The relatively low level of available (investment-grade) savings options for (especially corporate debt);
- The absence of an accessible, liquid, low-risk yield curve (i.e., government debt) against which more risky investment returns can be assessed and compete;
- The difficulty in both discovering and comparing the cost and quality of various financial service offerings, and whether they represent value for money in terms of expected increased net of fees returns;
- The high costs associated with relatively small funds, given their lack of economies of scope and scale;
- The relatively high proportion of investment categories that are not available to the general investing public (e.g., private, collective, or cooperatively owned asset classes); and
- The absence of an annuities market to assist those retiring in future years who will receive lump sum payments

Recent changes made to property tax, the growing Kiwisaver accounts, and the impact of the 'PIE' regime should alter investors' choices towards financial assets going forward. However, we do not yet have data to assess the impact of these policy changes.

Many of the issues outlined above are also evident in the Australian savings industry, as recently outlined in the Cooper Review. The wide range of savings options, the difficulty of assessing value for money, and the lack of economies of scale and scope in many of the funds, can lead to unnecessary costs and a lack of investor trust.

These challenges are compounded by the level of financial literacy in New Zealand (as is the case for most economies). Improving the incentive to save and the quality of investment is an important component of raising the potential growth rate of the New Zealand economy. These improvements need to come from both the 'issuer' and the 'investor' side of the savings-investment industry.

The New Zealand Superannuation Fund's contribution to this environment

The expected long-term financial benefits of the Fund (outlined in Section III above) does not include any additional positive outcomes that may arise from the Fund going about its activity. However, some of these near-term positive outcomes will assist in improving the New Zealand saving-investment environment.

The Fund is one of New Zealand's few large and genuinely long-term savings vehicles. We believe this provides the Guardians opportunities to create investments that may not be available in the Fund's absence. It also enables the Guardians to access investments that a shorter-term investor, or one with more liquidity needs, would not be able to.

For example, our normal investment activities have led us to:

- Bring the capacity to invest in long-dated productive assets (e.g. investing in Shell NZ/Greenstone and Kaingaroa Forest);
- Contribute to growing parts of New Zealand's capital markets via adding liquidity to debt and equity markets, promoting sound governance practices in companies we invest in, and our specific New Zealand investment strategies;
- Reduce the overall costs of funds management compared to smaller individual accounts through our economies of scale and cost;
- Access international investment expertise through our collaboration and co-investment efforts with like investors;
- Bring financial diversification to the government's balance sheet, which means that if the New Zealand economy goes through a particularly bad patch, the Fund can still contribute to NZS; and
- Reduce uncertainty related to the future affordability of NZS and tax rates, thus assisting in individuals' savings decisions for the future.

We can achieve these outcomes while avoiding 'crowding out' other participants in New Zealand investment opportunities – in areas where this is possible, such as New Zealand listed equities. This is managed by us calibrating our investment appetite to avoid potential adverse market effects.

We are also very conscious of our net-of-cost returns when making our investment decisions and reporting outcomes. We utilise our economies of scope and scale to ensure value for money when investing, especially in terms of deciding on the best means of accessing an investment (i.e., the most cost-effective access). And, we benchmark our activities and returns rigorously.

All of these activities help in improving the scale and scope of New Zealand's capital markets, and improve the environment for other savers. Our website outlines more information on our New Zealand investment strategies. In particular we outline our Expansion, Direct, Rural, and Infrastructure investment strategies.

The Guardians' role is to manage the New Zealand Superannuation Fund consistent with the legislated mandate. In doing so, we are confident of adding wealth to the government balance sheet over coming decades, as well as bringing present day benefits through our investment activity.

References

Savings in New Zealand – Issues and Options (September 2010) available at <http://www.treasury.govt.nz/publications/research-policy/tp/saving/tp-savinginnz-sep10.pdf>

Proceedings of RBNZ workshop: *Housing, Savings and the Household Balance Sheet* (November 2006) available at <http://www.rbnz.govt.nz/research/workshops/14nov06/2823686.html>

Final Report of the Super System Review Panel (the 'Cooper Review') (July 2010) available at http://www.supersystemreview.gov.au/content/downloads/final_report/part_one/Final_Report_Part_1_Consolidated.pdf

Report of the Capital Markets Taskforce (December 2009) available at http://www.med.govt.nz/upload/71047/MDV6220_CMD_TombStone_04c.pdf

Improvements to Income in Balance of Payment Statistics (September 2010) available at http://www.stats.govt.nz/browse_for_stats/economic_indicators/balance_of_payments/improvements-to-income-in-bop-stats.aspx

Appendix 1: Saving, Investment, and Economic Growth

Economic Prosperity

Combining people, knowledge, and physical and financial resources enables economic activity and wealth to be created. The smarter people use the limited and scarce resources, the more economically secure they will be, the more sustainable is the growth in wealth and resource use, and the more choices people will have in their life related to things they want to consume or experience.

Investment in people (human capital or knowledge), resources (land and mineral resources), and technology and infrastructure, plays the critical role in promoting economic growth.

Saving and Investment

The quantity and quality of investment determines future economic prosperity.

In order to be compensated for investing, an investor needs to be confident that the value of their saving will have – at the very least - equivalent purchasing power when they consume it in the future. In addition to this minimum return, an additional return may be required depending on the type of investment made and the attendant risks that accompany the investment.

To maintain future purchasing power investors need to be compensated for future nominal economic growth (i.e., real growth plus inflation) and any related uncertainties. They also need to be compensated for other costs and uncertainties incurred when investing (i.e., 'transaction' and 'agency' costs). To the extent these uncertainties can be identified and priced, there will be a risk premium (return) demanded by an investor.

Investment Risk and Growth

In terms of identifying investment risks, there is considerable theoretical and empirical work on the determinants of economic growth.

Economic growth is primarily determined by the volume of economic resources being employed and how productively they are utilized (productivity). In the long-run, productivity primarily determines sustainable per-capita economic growth.

Outside of the triangle on page 20 is an economic system's endowments i.e., capital (physical and financial resources), labour (people and their skill level), and geography (e.g., distance to market, population density).

Inside the triangle are broad headings for the determinants of how efficiently we use these endowments to ensure either the same things are done better (productivity), or better things are done (innovation).

Productivity improvements are the most important source of growth in the very long-run, and often also over short to medium-terms.

Growth can also occur from trend increases in labour and capital, particularly so in emerging economies where capital and labour utilization tends to be low relatively to developed markets. Going forward, population demographic shifts will also play an important role in determining trend growth and potentially capital market returns. In New Zealand, there is scope for capital deepening to enhance total productivity.

The linkage between growth and returns to capital is not automatic. For example, increasing productive inputs (investment) without regard to their marginal return can lead to over-investment and a reduction in returns to existing holders of capital. Similarly, while increases in productive capacity from so-called 'disruptive technologies' may create spectacular returns for owners of the new technologies, it may similarly create poor returns for holders of firms relying on now obsolete technologies.

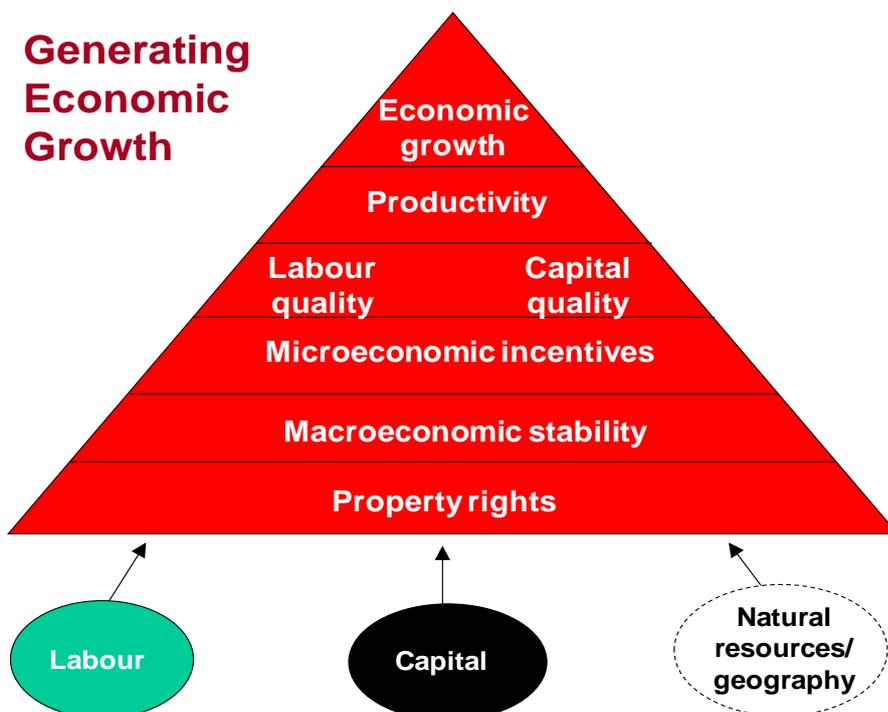
Along with uncertainty over how growth affects returns to existing capital holders, the growth process itself is, of course, very uncertain. In each of the layers of the growth triangle in Figure A there are various determinants of the economic risk exposures an investor must be compensated for. These are uncertainties related to future productivity growth, inflation, and transaction and agency costs in an economy. These uncertainties cannot be diversified away by an investor. Instead they must be compensated for. In brief:

Property rights refer to a sound legal and institutional framework that investors can rely on through time to contract and retain the benefits of their efforts. Transactional and agency costs involved in investment are critical here. New Zealand ranks well with regard to legal and contract stability. However, gains can be made by improving governance and decision-making rights around collectively held assets.

Macroeconomic stability refers largely to the confidence people have around future nominal economic growth. These include factors such as price stability (inflation credibility), sustainable fiscal policy, as well as overall saving-investment balances. New Zealand is well-served by a sound central bank and fiscal policy framework. However, it is a small, open economy with limited economic diversification. These factors will always lead to economic growth variability over short periods of time.

Microeconomic incentives are critical to the desire and ability to investment in productive resources. This encompasses the institutions and government policies that create individual and firm incentives to invest, accumulate skills and capital, and transfer knowledge and technology. It includes welfare systems, tax structures, openness to trade, freedom of movement of capital and labour, real wage flexibility, and so on. These factors are critical to uncertainty around future productivity growth. Much of the discussion related to improving the incentives to save and invest and to the investment environment relate to microeconomic institutional structures.

These factors combine to determine overall capital and labour productivity, and hence sustainable economic growth as outlined below.



Appendix 2: Government savings and the cost of NZS

NZS is a 'pay as you go' scheme which means today's recipients of NZS are funded from today's tax revenue. The actual dollar amount of the NZS payment is fixed as a portion of the median New Zealand wage of the day.

There are considerable education, and government and private-sector initiatives underway to explain the NZS scheme and to discuss additional Tier 2 and Tier 3 personal savings (e.g., the recently introduced Kiwisaver scheme and the work of the Retirement Income Commission).

Given its construct, the future cost of NZS will be driven primarily by the number of recipients and the movement in nominal wages. This means that the most direct means of influencing or managing the cost of future NZS would by necessity be focused on eligibility (universal or targeted) and indexation (how does the nominal payment change over time).

Discussions related to the eligibility for Superannuation payments relate primarily to means testing and/or the age of eligibility (the latter especially so due to the increasing longevity of the labour force).

Issues related to indexation tend to focus on the underlying purpose of Superannuation payments e.g., whether NZS is designed to be a means of income relativity (with the nominal payment linked to nominal wages) or consumption relativity (with the nominal payment linked to the price of a basket of goods and services).

On balance, any concerns related to eligibility and indexation needs to be considered in the context of, amongst other practical challenges:

- the level of NZS relative to a pre-retirement working income, and the incentive to save privately as a supplement; and
- the proportion of NZ households that could currently save sufficiently to replace or supplement NZS

How the Fund is structured to meet its purpose

For more information on why we are long-term investors, see the What We Do section of www.nzsuperfund.co.nz

The Guardians investment mandate is outlined in Section 58 of our empowering legislation (the New Zealand Superannuation and Retirement Income Act 2001). This requires the Guardians to invest the Fund to maximise returns without undue risk. The formula that determines the capital contributions to, and withdrawals from, the Fund is also enshrined in this legislation. Currently it is estimated we do not have to meet any withdrawals from the Fund until 2031.

This long investment horizon, minimal need for regular liquidity, and the 'maximise returns without undue risk' mandate lead us to include a high proportion of growth assets in the Fund. By growth assets we refer to direct equity ownership in productive activities, rather than ownership of 'debt instruments' where the risk and return will be generally lower, with less variable cash flows.

These factors mean that we pursue investment options and access active returns which investors without our mandate are less able to. Often, this is because many of those asset classes (e.g. timber) cannot be realised quickly – they are ‘illiquid’ – and require a longer-term commitment of capital. This does not suit many investors’ portfolios because they have higher demands for cash (perhaps because they have to pay dividends or cover the eventuality of investors selling up and leaving their fund).

We pursue investment options – such as investing in ‘illiquid’ asset classes – only when we are confident of being rewarded, over time, with superior returns relative to more standard options such as passive investments in fixed interest or equities. This is following in the footsteps of other international best-practice endowment, Sovereign Wealth, and global pension funds, which are our peers. Our benchmarking, collaboration, co-operation, and co-investment activities are very much directed at exploiting these opportunities and relationships.

Having a portfolio with a large proportion of growth assets tends to generate short-term volatility in our returns - as evidenced already in our short investment history (around seven years). In this regard, it is very important to keep in mind that the purpose of the Fund is long-term and so its success must be measured over the relevant horizon. Single-year financial return snapshots have very limited relevance (and monthly snapshots even less relevance) other than as a small contributor to a much larger pattern of desired returns.

Benchmarking the value of the investment options we choose

Because we are deliberately taking on more financial risk to best ensure we achieve our mandate, another important benchmark is how our Fund is performing against a passive alternative pool (or *Reference Portfolio*) of financial assets that has the same exposure to growth assets. This passive-alternative portfolio is one in which we simply buy the widest listed indices available that represent the financial risk we want e.g., the MSCI global listed equity index.

Our Reference Portfolio is our estimate of the best simple, low-cost, passive portfolio we could invest in to achieve our mandate. It is therefore a benchmark for our ability to add value with more complex, expensive, active investment strategies. These activities include strategic tilting, investing in private and/or illiquid assets, and investing in specific skills (such as those possessed by external investment managers).