

**Saving New Zealand:  
Reducing Vulnerabilities and  
Barriers to Growth and Prosperity**

**Savings Working Group Final Report to the Minister of Finance**

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**New Zealand Government**



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Dear Minister

We are delighted to complete this Report for you.

In the time available it required an intense effort and I thank everyone who contributed to it, in particular, the members of this Group and its secretariat.

The Report presents well-considered, robust and, where necessary, pragmatic views on economic policy and saving issues which we consider merit serious consideration, especially in the current economic and financial market context. However, some of our recommendations do require further detailed fiscal analysis, which we did not have time to complete.

While our Terms of Reference excluded some issues this was not a significant constraint as our views on them are implicit in our higher-level analysis.

Our views will challenge some strongly held and entrenched attitudes, and differ in some areas from genuinely held perspectives where the position is not helped by data difficulties. However, we are confident in the merits of the views in our Report, as a sound and realistic basis for policy.

Best wishes

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# Readers' guide

**Part 1** – concise, higher level overview – not technical, an easy read.

**Part 2** – the full story, more detail, technical in parts.

**Part 3** – more detailed and technical supporting information for Part 2.

The presentation is designed to meet the needs of a variety of readers and this results in some repetition of important points.

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# Part 1

## Overview

### Main themes

**New Zealand's level of debt is too high.** Its net foreign liabilities are 85% of GDP, a similar level to the troubled nations of Europe. Australia is at 58%.

**This liability makes the New Zealand economy vulnerable.** Sudden events over which we have no control could cause a dramatic and damaging fall in the economy, or we simply face a continuing deterioration in the economy and living standards.

**Increasing saving is essential to reduce the vulnerability.** Saving, the difference between what we earn and what we spend, must be increased – especially in the government and household sectors.

**The Savings Working Group recommends policies to increase the quantity, quality and rewards of saving.** Important areas include: the government's fiscal approach and position, public sector productivity and performance, taxation, financial literacy, immigration, business profitability, the quality of savings data and numerous aspects of KiwiSaver and household saving.

### Where are we?

New Zealanders – the people and the government – are not saving enough. Unless we make some rapid changes, we are risking a major economic disruption likely to leave practically all New Zealanders worse off. It's as if we are standing on top of a cliff that may collapse dramatically or crumble slowly. Either way, it would be a bad fall. We need to move back from the brink – and fast.

In recent years, we have saved considerably less than we have invested. Foreigners have filled the gap by lending us money, attracted by our relatively high interest rates, or by investing here. When a New Zealander takes out a mortgage or a business loan, much of that money is likely to have come from overseas. And that's okay, as long as it continues. But there are various scenarios under which foreign lenders and investors may change their minds and stop dealing with us or raise the cost considerably:

- A lowering of the credit rating of the New Zealand government or New Zealand companies. Standard & Poor's recently put New Zealand's foreign currency rating on negative outlook, which cautions that the rating might be lowered.
- The outbreak of a serious agricultural disease, such as foot and mouth disease.
- A natural disaster, such as a major earthquake, flood or eruption.
- Any other change – such as a sharp drop in dairy prices – that reduces the world's confidence in the New Zealand economy.



In the wake of the global financial crisis (GFC), lenders and investors are more alert to the problems that can arise – and investor sentiment can change quickly.

Furthermore, a lot of the foreign debt in New Zealand is short-term. If a majority of the foreigners investing here decide to pull their money out the next time their loans roll over, we could see an abrupt drop in funds available for mortgages and other loans and investments. This would lead to a long list of economic woes, including: rising interest rates; a shrinking economy; large job losses; falling values of property, shares and other assets; and reduced government spending on such things as benefits, pensions, health services and public sector wages – which would probably be driven down along with other wages.

While some people might think they would like higher interest rates or cheaper houses, the overall economic damage would badly affect everyone. We just need to look at what has happened recently to the Irish economy or to the US mortgage market, or indeed to the New Zealand economy in the wake of the 1987 share market crash, to get an idea of what could happen. We don't need that again here.

Let's be clear – a "sudden stop" in the New Zealand economy is not inevitable, but it is a very real risk. And, if it doesn't happen, our position will simply continue to deteriorate gradually instead of crashing.

Unfortunately, national saving is not the only problem with the economy. For a long time, growth in productivity and exports has been much too slow, and the same can be said for incomes and living standards. Since 1987, the only income increase for the lower-income half of the population, after adjusting for inflation, has been through increased government transfer payments – which is pretty shocking really. So there is a lot to be done now, to start sorting all of this out.

### How did we get here?

The numbers tell the story:

- New Zealand has had a current account deficit every year since 1974. Put simply, this means our total payments to overseas for imports of goods and services, interest (on borrowed money) and dividends (on foreign money invested here) have been greater than our total overseas earnings – from exports of goods and services and interest and dividend payments to us. Unfortunately, export growth has been hindered by our relatively strong exchange rate – buoyed by our high interest rates.
- Increasingly, we owe money to the rest of the world. Our net foreign liabilities (NFL) – the total New Zealanders and the government owe to foreigners minus our total foreign assets – are sitting at 85% of gross domestic product (GDP). What's more, about 90% of the NFL is in the form of debt rather than equity, making it easier for foreigners to take their money away.
- Our NFL of 85% of GDP is similar to the level of Ireland, Portugal, Greece and Spain, all of which are going through dramatic and painful economic adjustments. While there are some important differences between New Zealand and those countries, their difficulties are still a stark warning of what could happen here.

- The New Zealand government's share of the NFL is relatively small, which is helpful, but it is now growing rapidly. The bulk of the debt is in the private sector. In the last 15 years, household debt has doubled relative to our incomes. Much of this borrowing has been in the form of mortgages to buy increasingly expensive houses – both homes and rental properties. Borrowing to buy farms has also been high.

### What should we do about it?

Continuing as before is not a viable option. We are vulnerable – some say “highly vulnerable.”

To reduce our vulnerability, we need to:

- Increase national saving by some 2% to 3% of GDP from its current gross level of 17% of GDP, by increasing government, household and business saving.
- Improve the quality of savings and investing – through better asset choices, higher returns and so on. This involves changes such as reducing serious tax distortions, much better disclosure on financial products and their fees and performance, and improving their efficiency and returns. Financial education also needs a lot more work.
- Boost productivity, particularly in government services.
- Grow exports and production of goods and services that substitute for imports – so that we buy less from overseas. This will reduce the current account deficit and, in turn, the level of NFL.

In fact, there has already been some progress in recent months. As a result of the global financial crisis (GFC), we have reduced investment, consumption and imports and increased debt repayment, so that the NFL-to-GDP ratio has already fallen from a peak of 90% to 85%. However, these changes are considered to be mainly a short-term response to the immediate situation and are likely to reverse when growth resumes. We need to make changes that entrench the new behaviour – and take it further.

### The Government's role

Clearly, there are serious questions to be asked about New Zealand's economic policy and how we got into this mess. Why was it not better designed and managed, and more focussed, coordinated and strategic? Did the electorate simply get what it voted for, without realising what was really happening, or have New Zealanders not been well served over the years?

Underlining the current difficult situation, the government is spending at an unsustainable level and running large deficits (the opposite of saving). As a result, it is borrowing a hefty \$300 million a week.

It needs to return the Budget to a surplus of no less than 2% of GDP as soon as possible.

Looking ahead over the next 20 years or so, the government will face increasing costs from the effects of an ageing population. If the government is to keep its borrowing within a sustainable level (as it must) over this period, its options are to: substantially increase tax revenue, reduce government spending, or increase government sector productivity and performance. The first two options are clearly unpalatable. However, modelling shows that if the government can lift its performance and increase

productivity by 2% a year for five years and 1% thereafter, there would be no need to raise taxes or cut government services. The SWG strongly recommends this.

On other government policy issues, SWG recommendations include:

- A much more strategic and integrated approach to policy generally.
- Serious consideration of the impact of the level and variability of immigration on national saving, and the impact that this might have on the living standards of New Zealanders. There are indications that our high immigration rate has pushed up government spending, house prices and business borrowing.
- Improving data on household and business saving.

### How households are affected

Clearly, New Zealand's weak economic performance has not been good for households, and the now high level of NFL and unsustainable government position pose very real threats for the future. While there are weaknesses in the New Zealand data, and in the comparability of data from different countries, there are clear indications that New Zealanders don't save as much as people in similar countries. True, our wealth has increased significantly in the last two decades, but this is largely because of increases in the prices of houses and farms. Fundamentally, this doesn't do much for the wellbeing of New Zealanders.

Coming down from the national saving to the household level, we need to look past aggregate figures to the situations for people of different ages and in different income brackets. Research suggests that most New Zealanders aged 45 to 64 seem to be saving enough to retire with a similar lifestyle to what they had in their working days – with the exception of middle-income earners. For those on lower incomes, NZ Superannuation will provide as good a standard of living as they enjoyed while working, and those on high incomes will be fine. But will it be the same for younger people when they age? We cannot assume: that NZ Superannuation will continue in its current form; that younger people will enjoy the same economic conditions – including house affordability – as their parents; or that our economy will continue to perform at its current level. Nor do young people know now whether they will later be in the middle-income group that needs to save more.

The SWG's conclusion is that many New Zealanders would benefit from increasing their saving – and from being encouraged to save more wisely. The SWG has recommended changes to the tax system to remove serious distortions that encourage investment in rental property over more diversified investment in New Zealand and offshore shares, bonds etc. The changes include: rationalising tax on portfolio investment entities (PIEs), indexation of the tax system to remove distortions caused by inflation which particularly work against saving in basic savings products and reducing income tax further whilst raising GST (with compensation for low-income households).

What about enticing or forcing more people into KiwiSaver? For many, KiwiSaver membership involves simply transferring savings from elsewhere to make the most of KiwiSaver incentives. While their total savings are boosted by government and in many cases employer contributions, that just means the government and the employer have less money to do their own saving, so total savings may not change much.

But that's not always the case. Research suggests that nearly 40% of money saved in KiwiSaver would otherwise have been spent. Even if the number is lower, there are still some gains in total saving from increasing KiwiSaver membership. And KiwiSaver saving can be expected to exert some downward pressure on the NFL, albeit gradual.

The SWG does not recommend making KiwiSaver compulsory at this time, but it has made several recommendations likely to increase KiwiSaver performance and membership. While these recommendations would increase KiwiSaver expenses for a cash-strapped government, there are ways to compensate for this. Other recommendations suggest the establishment of a single default scheme with lower fees, and an ultra-low-risk fund.

The SWG also calls for better information for KiwiSavers and other investors, and more work to boost financial literacy. For people who retire with lump sums – from KiwiSaver or other savings – the SWG suggests the government should help to develop annuities or similar products to help people to manage retirement savings.

Over the longer term, the government needs to consider moving from the current pay-as-you-go approach to NZ Superannuation to more of a save-as-you-go approach. This would involve contributions from taxpayers – either directly through payroll deductions or indirectly through an allocation from the government. In the longer run this would reduce taxes, and the growing savings fund would boost total wealth. Along these lines, the SWG also suggests the government considers resuming contributions to the NZ Superannuation Fund.

### Business saving

The SWG reviewed business saving, and encourages steps that will make business more profitable – as this would lead to higher business saving.

## Conclusions

- Over some decades, New Zealand has had inadequate saving relative to its investment needs. This poor saving performance has left it with a high level of NFL – a level similar to Ireland, Spain, Greece and Portugal. While our situation is not exactly the same as these economies, their financial difficulties are a clear warning to New Zealand.
- This high level of NFL puts New Zealand in a vulnerable position. The vulnerability is more acute because of a sharply deteriorating fiscal position, constrained economic growth prospects and a high dependence on increasingly cautious financial markets – with investors concerned about countries with weak balance sheets and large borrowing needs.
- The critical factor has been inadequate national saving and overdependence on foreign borrowing. New Zealand's growth has come at the cost of rapid growth in foreign debt – mainly private – and too much of this money has ended up in inflated house and farm prices.
- In addition, overdependence on foreign borrowing has resulted in high interest rates relative to other countries and (by many measures) an overvalued exchange rate. Consequently, the tradable sector – particularly exports – has underperformed relative to the non-tradable sector, which has grown much faster.

- Decisive steps are needed to increase national saving above the current gross level of 17% of GDP by some 2% to 3% of GDP, lift productivity in both the government and private sectors, and increase net exports. If New Zealand fails to act credibly and effectively it increases the risk that many of the required adjustments will be imposed by market forces, probably in an abrupt and damaging way.
- The first step should be to stabilise the NFL-to-GDP ratio at below 90% and then, over a decade or more, reduce it to a more manageable 70% and then 60%. These changes will both reduce vulnerability and – most importantly – improve economic growth prospects. They should be started immediately.
- The fastest way to stabilise the NFL-to-GDP ratio is to return the fiscal balance to surplus earlier than current projections.
- A sharp increase in government sector productivity and performance would have a major positive impact, including on the capacity of the sector to supply goods and services over future decades. Current long-term fiscal projections show that if successive governments keep debt to a sustainable level – as they should – then, if there are no substantial increases in taxes, their spending in real terms will decline each year for about the next 30 years. This is a seriously unattractive prospect. However, raising the public sector’s performance and productivity growth rate, from 0.3% per annum to 2% per annum for five years and 1% per annum thereafter, would improve the situation. It would give the government options amongst (i) avoiding the decline in spending and services, (ii) allowing growth in spending and services, and (iii) an increase in national saving. Clearly, a highly performing public sector has many advantages.
- A “no change” approach to government policy is not viable. There is a serious need, for example, to look at New Zealand’s poor economic performance: the low capital-to-labour ratio, falling productivity growth rate and weak trade performance. Overall, there needs to be a much more strategic approach to economic policy and policy generally and less orientation to short-term political objectives. The intent would be to get better policy coordination towards important objectives, and improve New Zealand’s overall economic, social and environmental performance.
- A repetition of the unsustainable-boom problems of the recent past must be avoided. Many factors that have influenced New Zealand’s poor saving performance have been considered in this report from a policy perspective. These include: asset-price inflation, interest rates, monetary policy, household debt, contractual saving, migration, subsidies, taxation, market failures, household incomes, disclosure and financial literacy.

- The recent housing boom highlighted the importance of asset-price inflation as an issue. The rise in house prices was accompanied by a large rise in debt. More than half of private-sector debt is now in housing loans. Furthermore, during the boom many households saw no need to save since their wealth was increasing through house price revaluations. Policies are required to prevent unsustainable booms and to prevent excessive asset price inflation. One of the options is to reduce borrowing or, in other words, restrict the supply of credit. Reducing borrowing is – to some extent – an alternative means of increasing saving and wealth.
- Substantial differences in effective tax rates, favouring housing and penalising simple savings products such as term deposits, have had a big impact on saving and investment behaviour. Some of the policies being recommended by the SWG address this issue.
- Migration is another issue that the government should investigate further. There are indications that high immigration rates have pushed up government spending, house prices and business borrowing, and prevented necessary adjustments to the economy.
- Although there is reasonable confidence in saving data for the total private sector, there are significant issues with the quality of data for the household and business sectors. These issues merit close attention.
- The SWG considered a large number of other issues in relation to private, household and retirement saving, including KiwiSaver. The level of retirement savings appears to be high enough – at least for people over 45 – to avoid an increase in elderly poverty rates. These rates are at reasonable levels by international standards.
- However, there is much room for improvement. Recommendations on KiwiSaver include:
  - Membership in KiwiSaver should be increased, but not made compulsory at this time since many of the gains from compulsion should be achievable by other means.
  - Changes in the application of the KiwiSaver subsidy could yield better results.
  - There is a need for better disclosure of KiwiSaver terms, fees and other charges and returns. Fees and costs are generally too high, and more efficient approaches would add value. Moving to a single default option with much lower costs and fees is important. An additional low-risk fund that holds only short-term government securities should also be set up.
- Annuities, or similar instruments, have an important role to play in the way older people manage their savings. The government should lead the development of an appropriate instrument or market, with any involvement on a full cost-recovery basis.
- More work on financial literacy would help facilitate changes to attitudes and approaches to saving and put New Zealand on a more sustainable path.

- The saving problem has developed over a long period and it is unreasonable to expect it to be solved overnight. But it is serious and requires urgent attention. While there may be some downside for New Zealanders in the short term – with consumption growing at lower rates than the economy overall – the long-term effects should be very positive. For example, higher saving in KiwiSaver or other accounts is likely to boost the development of the local capital market, including the sharemarket. The availability of more capital should also put downward pressure on interest rates and encourage investment. This in turn should mean a lower exchange rate and higher exports. In summary, in the long term, higher saving should lift economic growth and national disposable income on a sustainable basis.
- The SWG recommendations offer a solution for low saving and the high NFL. They should also help to change attitudes and behaviours towards saving.

# Recommendations

- ▶ Indicates main recommendations.

The Savings Working Group:

## Policy

- ▶ Recommends a more integrated and strategic approach to economic policy.
- ▶ Recommends that government pursue with urgency an increase in national saving of some 2% to 3% of GDP.

## Fiscal policy

- ▶ Recommends a return to a fiscal surplus of not less than 2% of GDP earlier than the projected date of 2016, and maintain that level of surplus in the medium term.

## A high-performing public sector

- ▶ Recommends that the government set a target for public sector productivity and performance improvements of the order of 2% a year for the next five years and 1% thereafter, with a clearly defined measurement basis and significant incentives/penalties relating to those targets.

## The Crown's balance sheet

- Supports moves to improve current management of the Crown's balance sheet, and endorses the publication by the government of its investment statement, which provides an overview of government's investment intentions.

## Tax policy

- ▶ Recommends that at a minimum, interest income and expenses be indexed at a notified standard rate for tax purposes that reflects the rate of inflation (e.g., 2% per annum), and that asset cost bases for depreciation and, potentially, trading stock opening balances are also indexed.
- ▶ Recommends that the portfolio investment entity (PIE) tax rates should be changed to target a rate reduction for all investors closer to a benchmark of 5 to 10 percentage points below investors' marginal tax rates.
- ▶ Recommends that PIE tax rates be applied to interest and dividends subject to resident withholding tax (RWT). As with PIEs, the RWT would be a final tax unless the investor has declared the wrong rate.
- ▶ Recommends that interest deductions related to PIE and RWT income be reduced consistent with the above lower tax rates on income.
- ▶ Recommends that imputation credits be refundable to the extent that an investor's RWT rate is below 28%.



- ▶ Supports a continuing switch from income tax to consumption tax, and consideration of an increase in GST from 15% to 17.5% (together with compensating income tax and benefit changes for lower income earners).
- Recommends that changes to the thin capitalisation rules, to further reduce the safe harbour ratio, should be considered if the recent reduction to 60% does not result in many companies having to adopt their world-wide group ratio as a benchmark.
- Recommends that the tax base should continue to be broadened and tax rates kept low.
- Does not recommend implementing a full Nordic/Dual approach to taxation.
- Supports mutual recognition of imputation/franking credits between Australia and New Zealand.
- Notes investor frustration in relation to the regime (fair dividend rate or FDR) that applies to the taxation of non-Australian-listed off-shore portfolio holdings.

## Compulsion

- ▶ Recommends that membership of KiwiSaver remain voluntary at this time.

## KiwiSaver design

- ▶ Recommends auto-enrolment of all employees aged 18 and over (or 16 or over – see below) who are not currently in KiwiSaver, but with the ability to opt out.
- ▶ Recommends reducing the starting age of full KiwiSaver membership from 18 to 16.
- ▶ Recommends spreading the kick-start payment over a five-year period, and making payments contingent on ongoing contributions.
- ▶ Recommends keeping the minimum employee contribution at 2% of earnings; but increasing the default contribution rate to 4%, with the ability to opt down to 2%.
- ▶ Recommends applying the employer superannuation contribution tax (ESCT) rates to all employers' contributions to KiwiSaver.
- ▶ Recommends permitting partial withdrawal earlier than NZ Superannuation eligibility age for people with shorter life expectancy, in order to increase KiwiSaver participation.
- ▶ Recommends not allowing employers to give non-KiwiSaver employees pay increases to compensate for not receiving KiwiSaver contributions. In other words, do not allow a “total remuneration” approach.
- ▶ Recommends reducing costs, fees and expenses – thus increasing returns, including by creating a single low-cost default scheme.
- ▶ Recommends rationalising the default scheme so it invests only in index-based shares and bonds and offers a limited number of basic combinations for such investments. Members are then able to select one mix or default to an age-related transition programme through the different mixes.

- ▶ Recommends creating an additional low-fee, ultra-low-risk fund that invests only in short-term government securities.
- ▶ Recommends requiring all superannuation fund providers (including KiwiSaver providers) to produce regular, clear and simple reports that show all fees and other charges, and the investment return to the individual after all costs.

#### Other options to be considered:

- Auto-enrolling self-employed and non-employees aged 18 and over, and possibly also younger people, who are not currently in the scheme, with the ability to opt out.
- Removing or reducing the government-matched contribution for those on higher incomes.
- Permitting self-managed funds.
- Increasing the rate of member tax credit to \$2 for every \$1 contributed – either with no change to the current maximum annual credit limit, or in conjunction with a reduction in the current limit.

## NZ Superannuation Fund

- ▶ Recommends the continuation of the NZ Superannuation Fund, and consideration of contributions to the Fund on average across the economic cycle to maintain the unfunded liability at a stable percentage of GDP.
- ▶ Recommends that consideration be given to changing the funding method of the Fund, for instance, through the introduction of a dedicated social security tax (with an offset to ordinary income tax).

## Annuities

- Recommends giving investors receiving lump-sum retirement payments the option of converting some of their payout into an income stream. The government should consider helping to develop an annuities market, providing annuities, or providing the ability to buy an increased entitlement to NZ Superannuation. All of this should be done on a full cost-recovery basis.
- Recommends considering whether members of KiwiSaver should be required to take some portion of their withdrawal in the form of such an annuity/NZ Superannuation increase (rather than as a lump sum).

## Other long-term saving

- Recommends extending KiwiSaver-style incentives to other saving schemes where contributions are locked-in for reasonably long periods, say a minimum of 10 years.
- Recommends the government consider facilitating long-term investment by issuing inflation-indexed bonds.

## The role of business in the national saving debate

- ▶ Endorses the need to enhance business profitability.

## Financial literacy

- ▶ Encourages all agencies to work together to improve the quality, quantity and evaluation of their initiatives.
- ▶ Recommends that increased resources be applied to improving financial literacy, including making it part of the compulsory school curriculum.
- ▶ Supports the work being done by the Ministry of Economic Development on the regulation of periodic reporting for retail KiwiSaver schemes.
- Endorses the recommendations of the Young Enterprise Trust.
- Suggests that the government consider charging a low rate of interest on student loans after a student has graduated.

## Measurement issues

### Macroeconomic statistics

- ▶ Recommends that Statistics New Zealand:
  - a Updates the recently released institutional sector accounts on a regular basis.
  - b Develops the full sequence of accounts for each institutional sector, as set out in the international *System of National Accounts* manual.

### Household sector statistics

- ▶ Endorses Recommendation 5.5 of the 2010 Review of Retirement Income Policy and supports the relevant recommendations in the Statistics New Zealand Review of Standard of Living Statistics, namely:
  - a Work be undertaken to better integrate the macro and micro measures of household saving.
  - b Cross-sectional statistics on household net worth be regularly produced.
  - c A new longitudinal survey be investigated now that the Survey of Family, Income and Employment (SoFIE) has ended.

## Other

- ▶ Recommends a prompt review of the impact of net migration on national saving and other policy objectives.
- ▶ Recommends consideration of using variable levels of prudential capital against mortgaged lending across the economic cycle in order to help prevent unsustainable economic booms.
- ▶ Recommends ensuring that the regulatory framework supports business efficiency and competitiveness.
- ▶ Recommends developing a strategic plan to maintain long-term retirement incomes on the most efficient and effective basis, including the role of NZ Superannuation.

# Part 2

## 1 Introduction

### 1.1 Objectives

Reflecting its Terms of Reference, the Savings Working Group's objectives are to:

- recommend to the Government from a saving-based perspective a sound economic strategy for New Zealand, improvements to specific saving and saving-related policies, and any further work that is needed; and
- stimulate public discussion and understanding on issues of national saving in the New Zealand economy.

### 1.2 The saving problem

Saving is not spending current income to allow the accumulation of assets or debt reduction. Saving is important to economic activity in that it shifts resources from those who have no immediate use for them to those who can use them productively to enhance economic prosperity.

The main saving issue for New Zealand is that since the early 1970s New Zealand has not had sufficient savings for its own investment purposes. Consequently, New Zealand has had to rely on foreign savings to build its capital stock.

The long history of relying on foreign savings has left New Zealand with a level of foreign liabilities much larger than its foreign asset holdings. There is nothing wrong with foreigners holding assets in New Zealand and those holdings often bring significant economic benefits, particularly the transfer of knowledge and expertise. The issue is the gap between foreign liabilities and foreign assets, commonly referred to as the net foreign liabilities (NFL) position (also called the net international investment position).

New Zealand's level of NFL is now excessive at about 85% of GDP (arising mainly from private debt).

The large NFL position causes two economic problems that the SWG believes are serious and increasingly urgent. First, it makes the New Zealand economy very vulnerable to shocks – too vulnerable in the SWG's view. Second, it has an adverse impact on New Zealand's economic performance, especially growth.

The global financial crisis (GFC) has increased the sensitivity of markets to national balance sheets and New Zealand's position is extreme.

While there has been a recent significant lift in national saving it is unlikely to be sustained when economic growth recovers. Serious structural change is needed.

The continuing deterioration in New Zealand's fiscal position will increase its vulnerability and further discourage growth, as it increases the level of NFL.

In the present circumstances New Zealand has only limited capacity to deal with market shocks, natural disasters, climate change, an ageing population, and so on, and the risks to the community are much higher than is desirable.

There are also numerous areas where household-related saving policies and processes can be improved.

## 2 New Zealand's economic situation

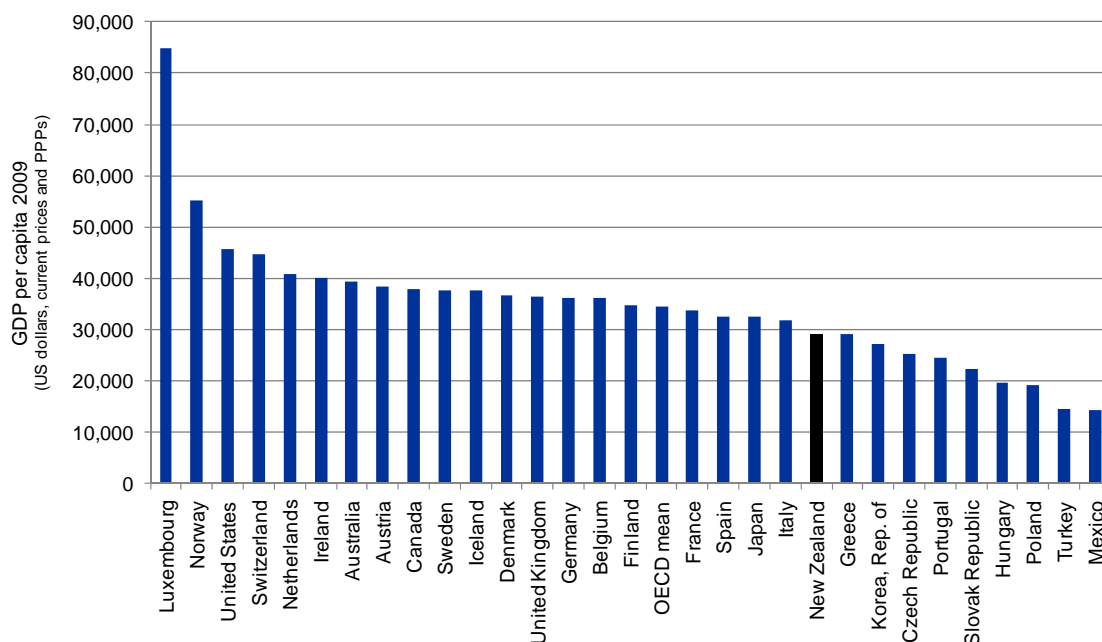
### 2.1 The main issues

Understanding New Zealand's current economic situation will put this saving problem in context. Over recent decades, New Zealand's economic growth performance has been poor relative to other developed countries and its own aspirations. New Zealand living standards have suffered and the economy faces serious structural and other problems.

#### 2.1.1 Poor economic performance

Over recent decades, New Zealand's economic growth performance has been poor by developed country standards. As a result, New Zealand's relative position in the OECD is well below average.

Figure 2.1: GDP per capita (US dollars, current prices and PPPs) 2009

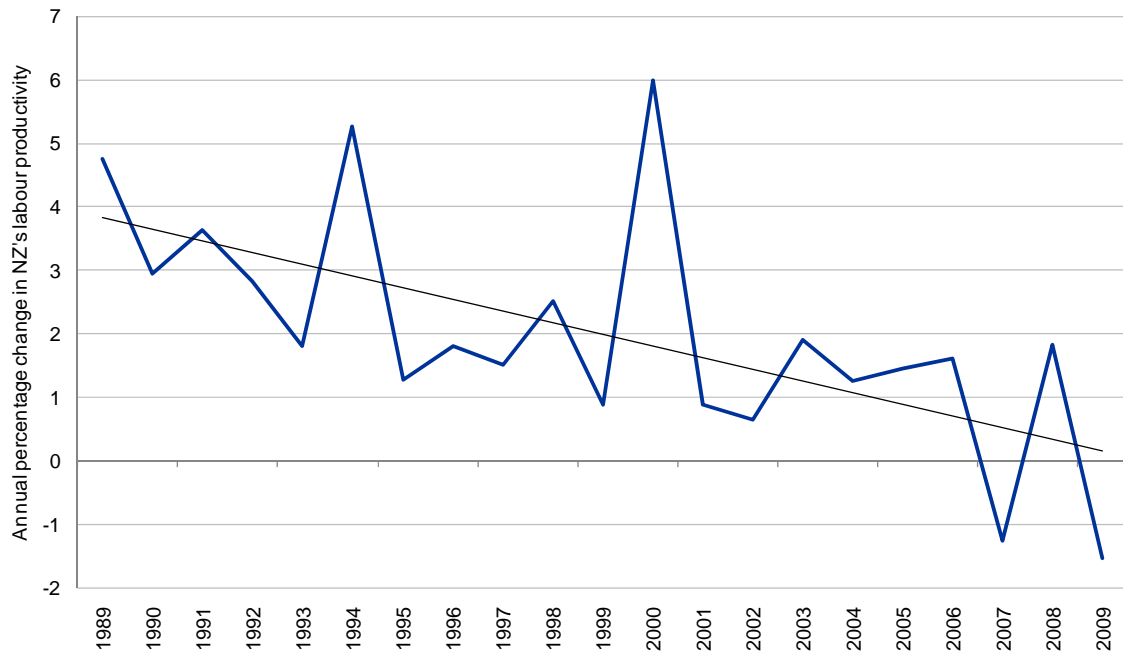


Source: OECD Factbook 2010

#### 2.1.2 Weak productivity growth

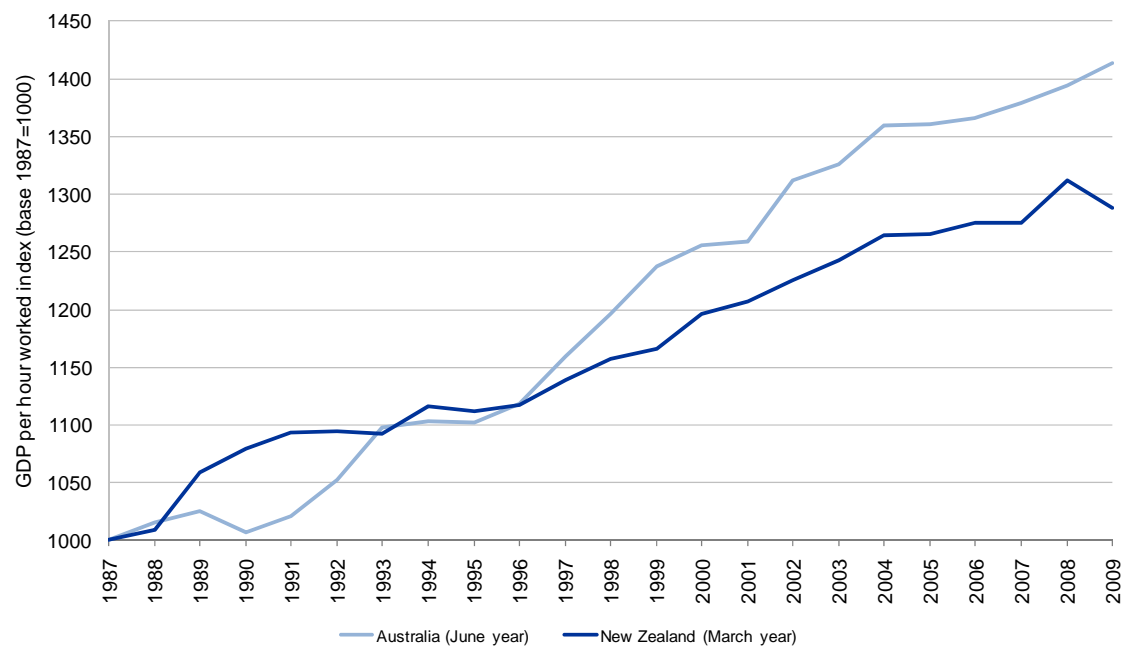
New Zealand's poor economic performance reflects weak productivity growth over several decades and a sharp decline in the last decade. This has undermined competitiveness, incomes and living standards.

**Figure 2.2:** Annual percentage change in New Zealand's labour productivity, 1989-2009



Source: Statistics New Zealand

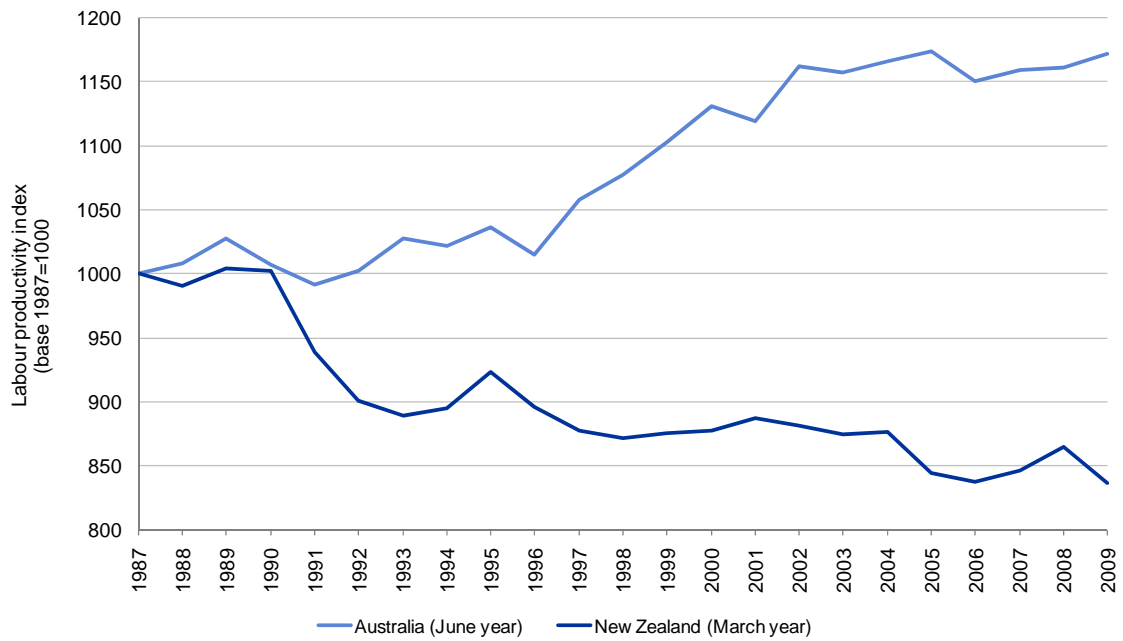
**Figure 2.3:** GDP per hour worked for Australia and NZ, 1987-2009, base: 1987 (=1000)



Source: Statistics New Zealand and Australian Bureau of Statistics



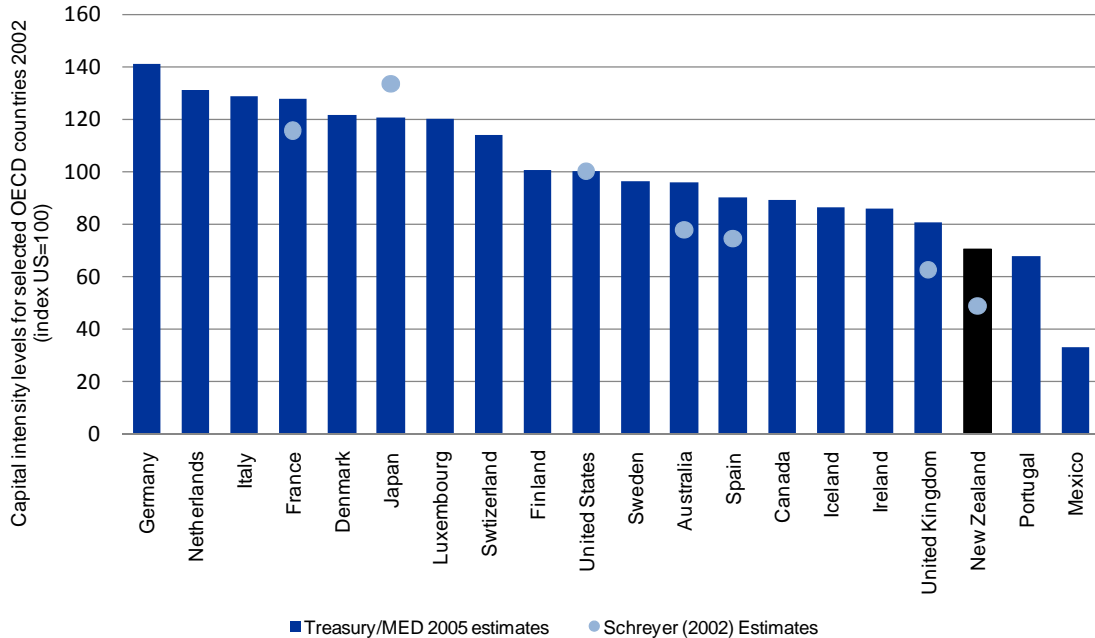
**Figure 2.4:** Labour productivity: selected services industries, 1987-2009<sup>1</sup>



Source: Statistics New Zealand and Australian Bureau of Statistics

Productivity growth has been constrained by a low capital stock. New Zealand's ratio of capital to labour hours worked in business (capital intensity) is well below Australia's and the OECD average.

**Figure 2.5:** Capital intensity levels for selected OECD countries, 2002



Source: OECD; Economic Development Indicators 2005

<sup>1</sup> These industries include: property and business services, government administration and defence, education, health and community services, personal and other community services. There are no official productivity measures for these industries. The data are published by Statistics NZ as unofficial statistics owing to their approximate nature.

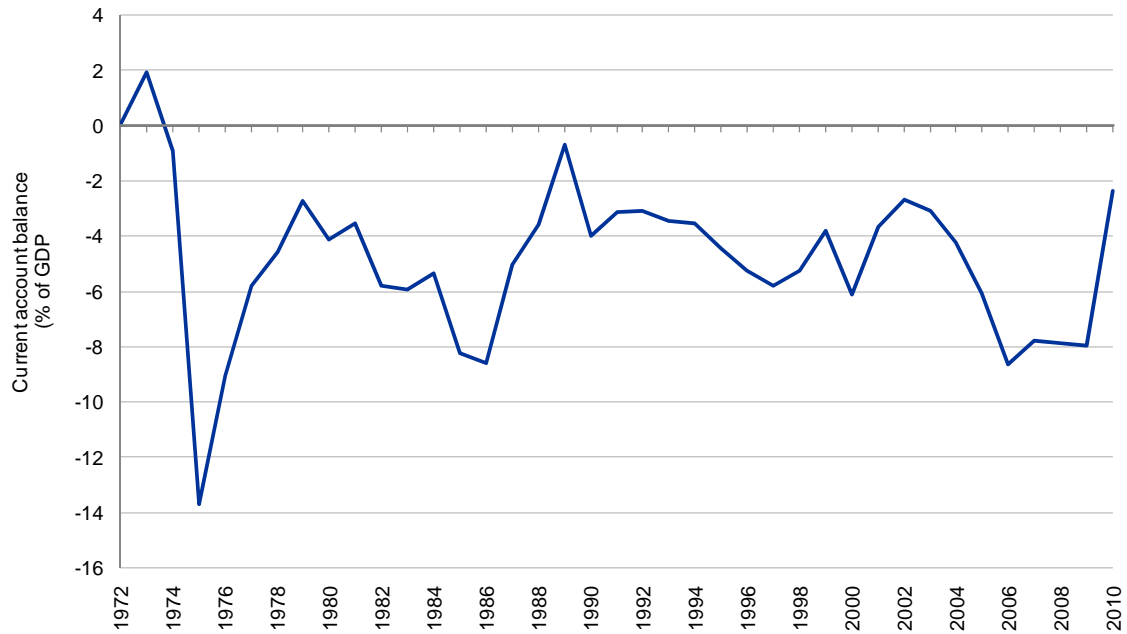
### 2.1.3 Low saving relative to investment

A low rate of saving relative to investment has meant that fulfilling New Zealand's investment needs has required savings from overseas and the large and persistent gap between New Zealand's investment and saving levels is reflected in the current account deficit over several decades.

### 2.1.4 Build-up of foreign debt

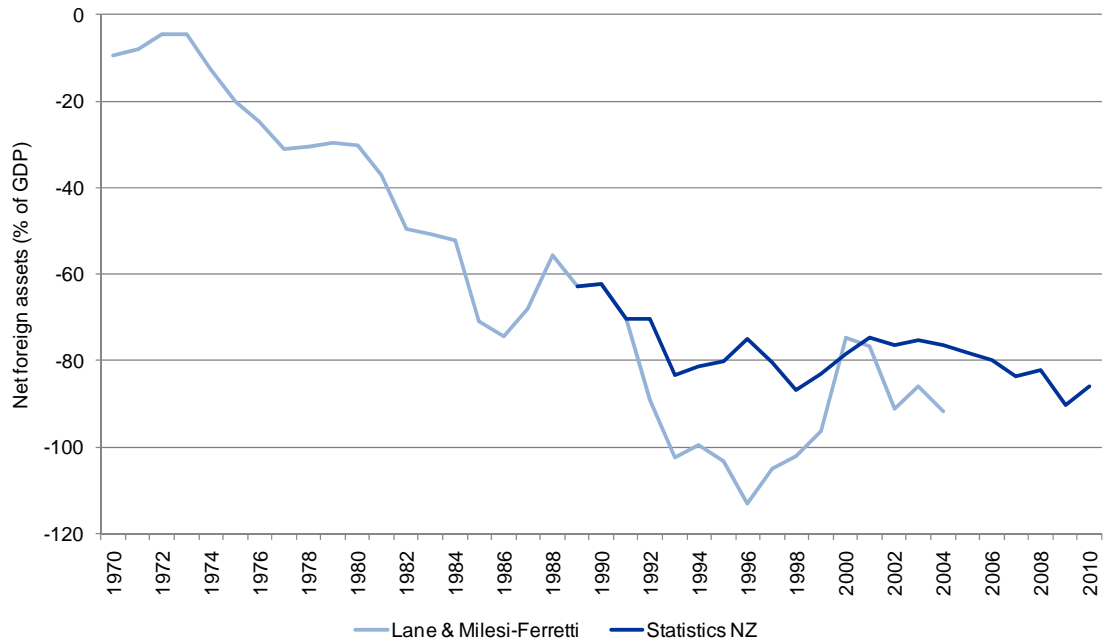
Decades of foreign borrowing and inward foreign investment has added to New Zealand's NFL. New Zealand's NFL peaked at 90% of GDP but, with the recession, has now moved closer to 85%. Most of the borrowing has been undertaken by the private sector.

**Figure 2.6:** Current account balance (% of GDP), 1972-2010



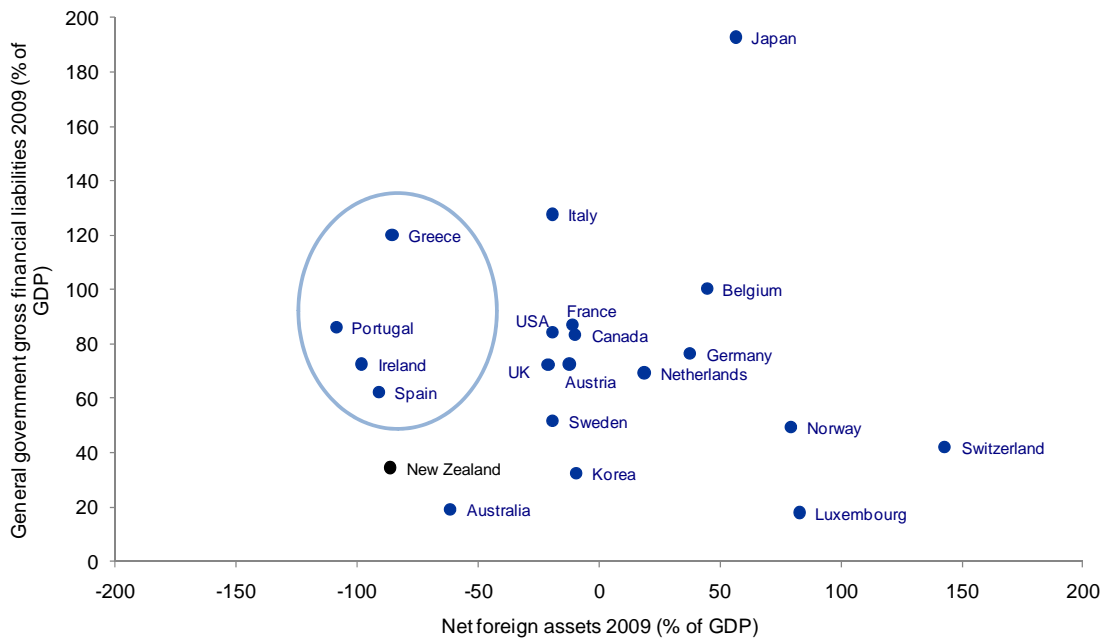
Source: Statistics NZ

**Figure 2.7:** Net foreign assets (% of GDP), 1970-2010



Source: Statistics New Zealand; Lane & Milesi-Ferretti (2006)

**Figure 2.8:** Government debt and net foreign asset position, 2009

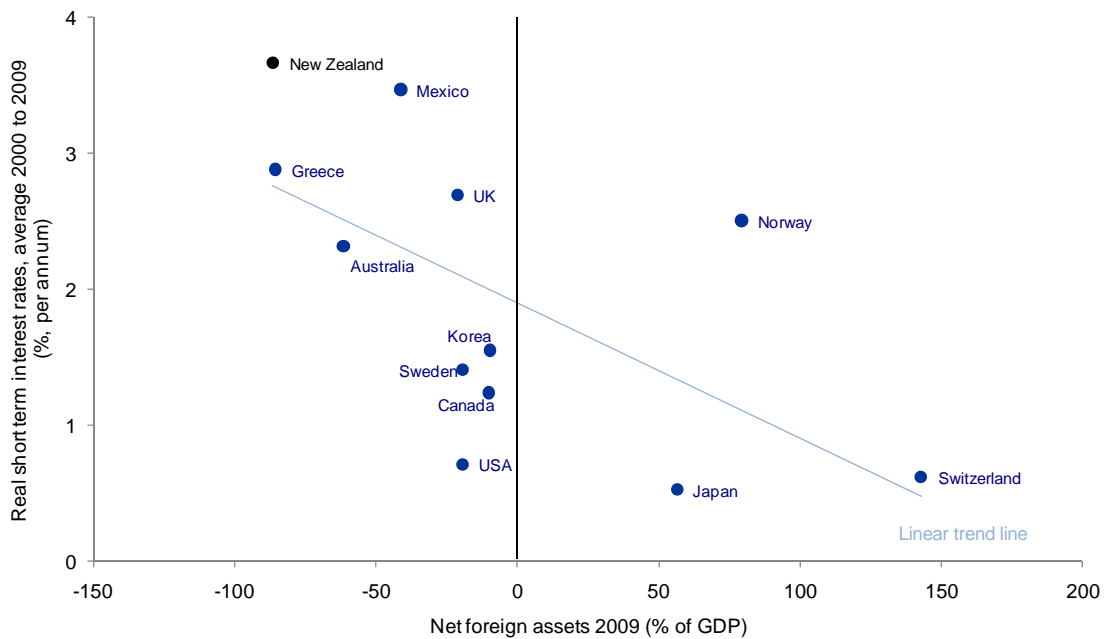


Source: OECD; IMF; Statistics NZ

### 2.1.5 Implications of high levels of foreign debt

- The large NFL position presents two economic problems that the SWG considers serious and increasingly urgent. First, it makes the New Zealand economy too vulnerable to market shocks. Second, it has an adverse impact on economic performance, especially growth. These problems are discussed in more detail later in this Report.
- Until the GFC it was easier to discount the argument that the level of NFL to GDP was a problem, but in the wake of the IMF rescues of Greece and Ireland, and the recent negative outlook warning on New Zealand's foreign currency rating, New Zealand can no longer be so complacent. Its NFL position is similar to Portugal, Ireland, Greece and Spain, countries currently in financial stress. New Zealand's risk is that it suffers a similar fate, with financial markets turning against it, which would cause serious economic hardship to many New Zealanders.
- The second problem is that it allows domestic demand to exceed domestic supply over an extended period. The demand pressure on the economy means that interest rates are higher than they would be in a more balanced economy and indeed, interest rates in New Zealand do tend to be higher on average than in other developed economies.

**Figure 2.9:** Net international investment positions and real interest rates

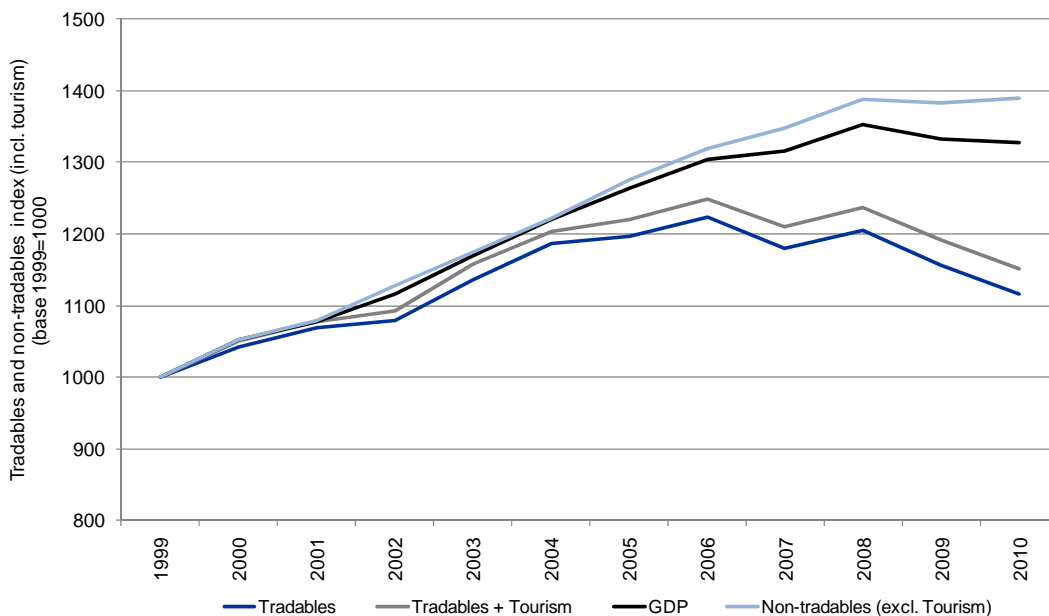


Source: OECD, IMF, SWG calculations

Note: Annual average nominal interest rates less average annual consumer prices.

- This interest rate differential, in turn, places upward pressure on the exchange rate in the short term, with an expectation that the exchange rate will depreciate in the future. However, to date this depreciation has failed to materialise as foreign investors continue to have faith in New Zealanders' willingness and ability to repay their financial obligations. The evidence is that this sentiment could change quickly and disastrously.
- The generally overvalued exchange rate encourages the expansion in the non-tradables sector of the economy and discourages activity in the tradables part of the economy.

**Figure 2.10:** Relative performance of the tradable and non-tradable sectors, including tourism 1999-2010



Source: Statistics NZ

- Since the tradables part of the economy tends to have higher productivity growth (due, in part, to being exposed to international competition) than the non-tradables part of the economy, overall productivity growth in the economy is lower. Since productivity growth is the ultimate source of income growth, this process has a long term adverse impact on the standard of living in New Zealand.

## 2.2 Understanding saving, wealth and debt

There are some conceptual issues that should be made clear at the outset. The first is to highlight the difference between saving (income not spent) and savings (a stock of wealth) (see Box 1). A second concept is the difference between wealth (assets located around the world and in New Zealand that are owned by New Zealanders) and domestic assets (capital equipment located in New Zealand that are partly financed by foreigners and used in the production of goods and services). Being clear on these concepts is important. The view of the SWG is that by OECD standards:

- There are relatively low quantities of capital in New Zealand and this lowers labour productivity and incomes.
- Per capita wealth (excluding land) is low.
- The high NFL position makes the New Zealand economy vulnerable to external events and results in low economic growth.

The SWG believes that wealth accumulation in New Zealand has been inadequate for reasons that reflect both inadequate national saving rates and poor asset choices.

Before looking at the problems of low saving, it is useful to:

- Describe the trends in national and sectoral saving rates.
- State our judgements regarding the adequacy of saving and whether the recent improvements in saving behaviour are permanent or not.

### **Box 1: What is national saving?**

National saving is the amount saved (and not spent) out of the incomes of three sectors:<sup>2</sup> government, households and businesses (including non-profit institutions).

#### **Saving versus savings**

In the National Accounts produced by Statistics New Zealand, “saving” is defined as the part of disposable income not spent on consumption. In contrast, net wealth (or “savings”), is a stock measure that is built up from the saving in each period plus changes in the value of the assets held. The usual convention in economics is to refer to the flow measure as saving and the stock measure as savings. We endeavour to apply this convention throughout this Report.

For more detail of the measurement of saving and savings, see Section 9.1 of the Report.

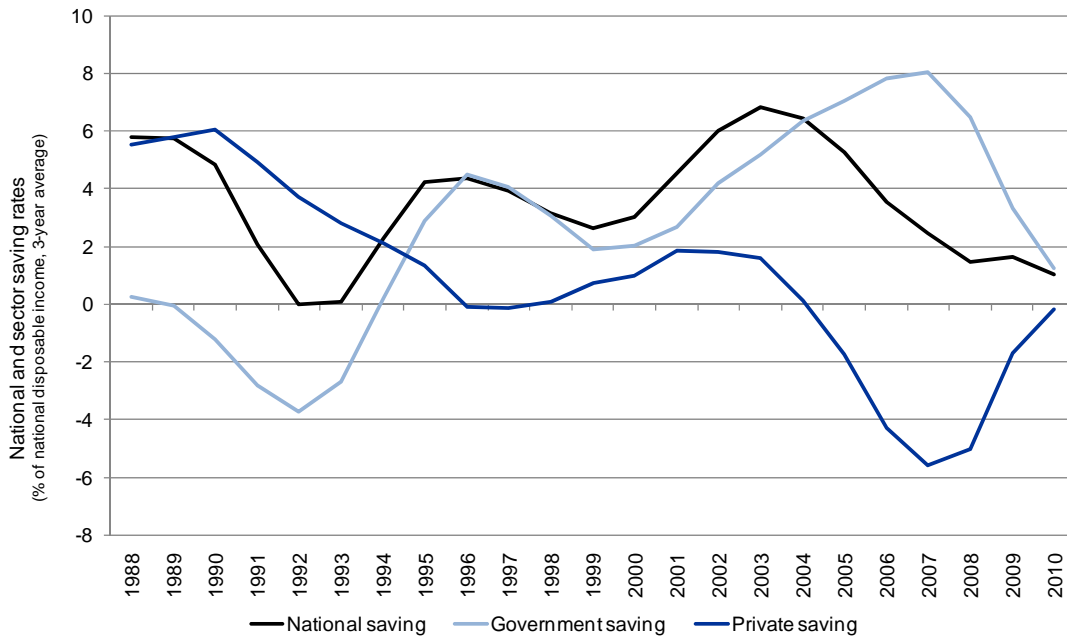
### **2.2.1 New Zealand’s saving rate**

New Zealand’s saving rate is low by international standards. Since 1975, net national saving (after adjustment for consumption of fixed capital) has averaged just 2.9% of GDP. Private saving has been declining for the last two decades and post 2003 has fallen steeply to become negative, with a pick-up in the last two years. A similar pattern is evident for household saving except that (a) negative saving has been recorded since the mid-1990s and (b) the steeper decline in the saving rate begins earlier (2001) and coincides with the growth in government saving. The government has been recording surpluses for much of this period, especially post-2002, but recent fiscal policies coupled with the economic downturn have seen government deficits re-emerge, resulting in a steep decline in government saving.

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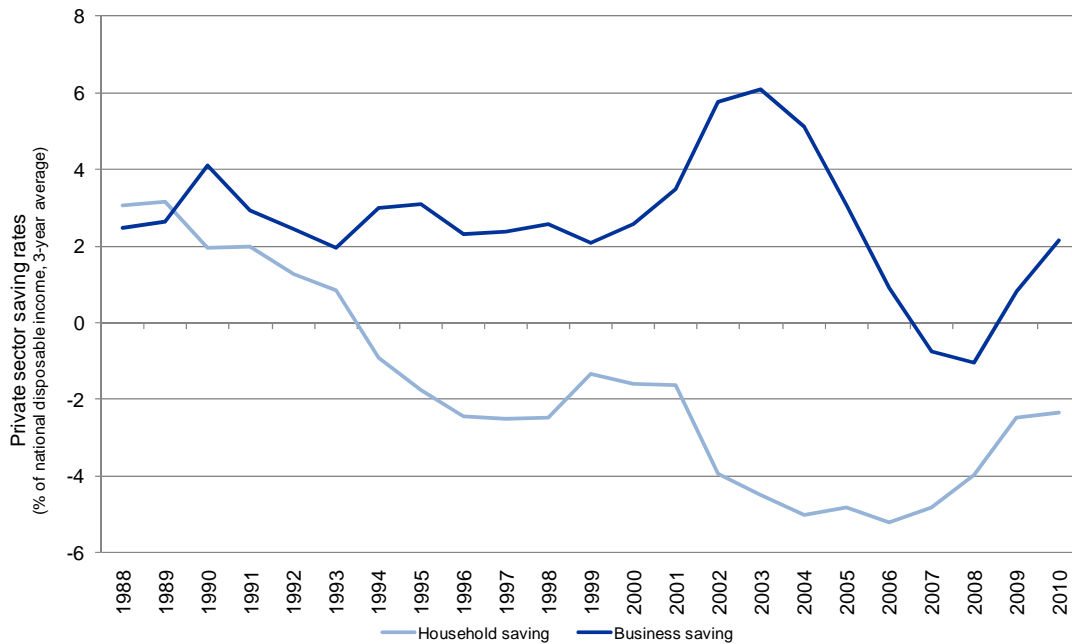
<sup>2</sup> Non-profit institutions (NPIs) serving households are also recognised as a separate sector in the National Accounts. However, as NPI saving is quite small it is not addressed in this study. In the report text and tables, NPI saving is included within business saving.

**Figure 2.11:** National and sector saving rates (as % of national disposable income, 3-year moving average)



Source: Statistics NZ

**Figure 2.12:** Private sector saving rates (as % of national disposable income, 3-year moving average)



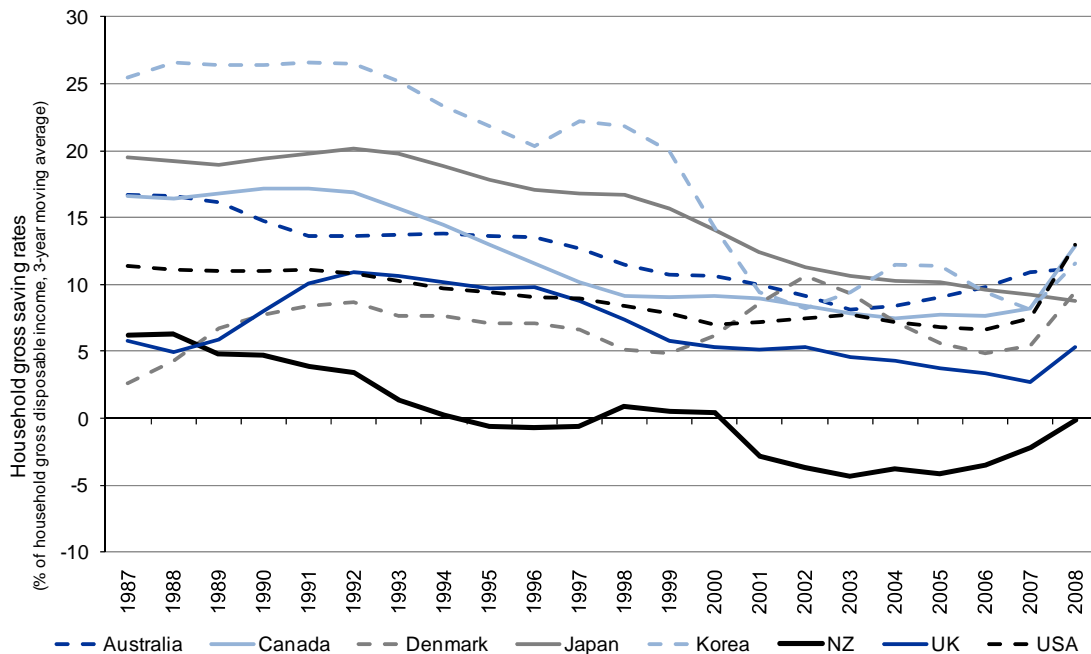
Source: Statistics NZ

Despite recent upward revisions for the household saving rate in New Zealand, household saving appears to be much lower than rates for the other countries.<sup>3</sup> Various causes of the low saving in New Zealand could include low income growth, the attractiveness of housing as an investment,

<sup>3</sup> Even though there are internationally accepted definitions of saving, caution is needed when comparing saving rates across countries because of variations in actual sector coverage, and methodologies actually adopted. Nevertheless, such comparisons are useful to illustrate broad trends.

population structure, high debt levels and government saving (refer to Section 9.1 of the Report for further comment).

**Figure 2.13:** Household gross saving rates (% of household gross disposable income, 3 year moving average)



Source: OECD; Statistics NZ; Statistics Denmark; Statistics Bureau, Ministry of International Affairs and Communication, Japan; Office for National Statistics, UK

Note: New Zealand, UK and Japan: Household sector only. All other countries: Household sector plus NPI serving households

The declining and negative household saving rate has been questioned by a number of analysts who have derived alternative measures based on different data sources. None of these are strictly comparable to the national accounting-based saving series. While there remain some doubts regarding the split between household and business saving in the official series, the level and trend of aggregate private saving is not in dispute.

The seeming accuracy of the aggregate saving data raises an apparent puzzle, because these measures suggest New Zealanders have not saved very much in the last two decades. Yet estimates of the change in national wealth over the same period suggest wealth has increased significantly. An obvious explanation is that the change in wealth has been dominated by increases in asset prices, particularly the price of land. This issue is explored further below for households.

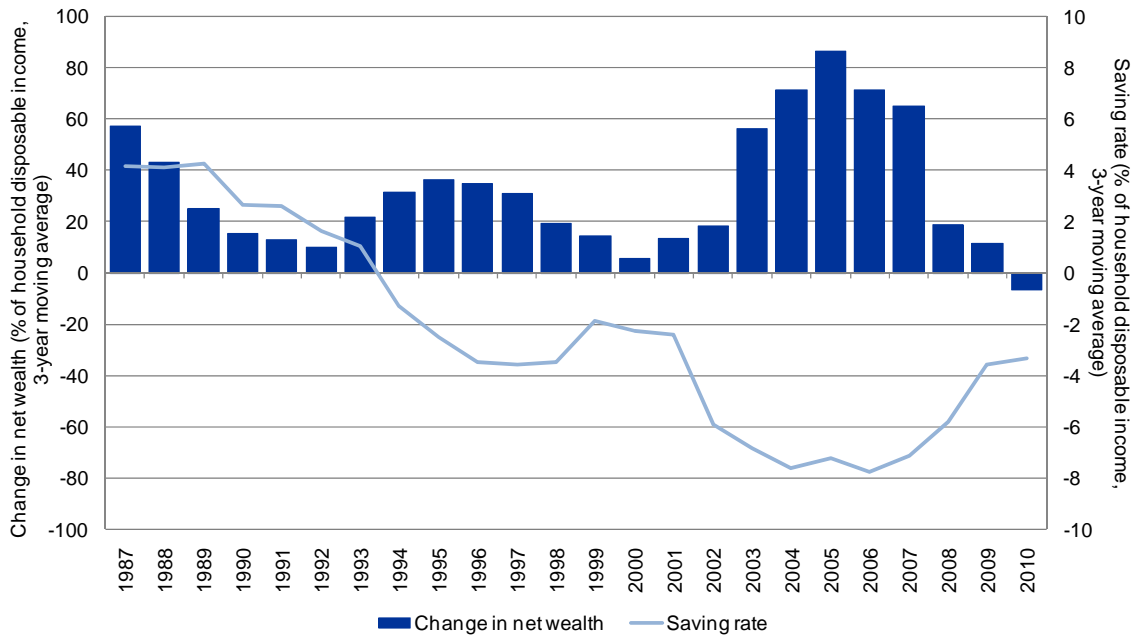
### 2.2.2 New Zealand's wealth and assets

In recent years, household net wealth has increased significantly, due largely to the rapid rise in land and house prices. This has led to what appears to be the paradoxical situation of household net wealth increasing significantly, despite the official household saving rate being negative and declining. This is illustrated in Figure 2.14 which graphs the change in household net wealth as a percentage of household disposable income and compares this with the official household saving rate.



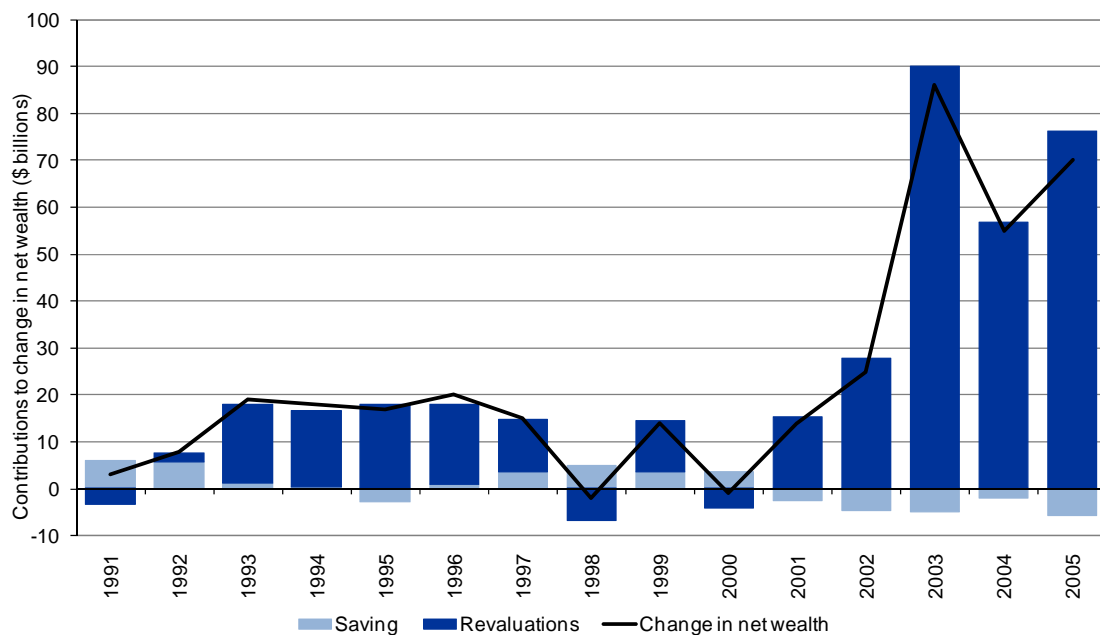
This apparent anomaly is explained by the fact that almost all of the increase in net wealth is due to property revaluations which are specifically excluded from the saving measure. This is shown in Figure 2.15, which also provides an alternative to the official flow-based saving series. It is derived from a combination of data from the RBNZ household balance sheet and the national accounts. It is important to note that there are several data issues that impact on the accuracy of estimates of wealth in New Zealand. More detail on the measurement of wealth can be found in Section 9.1 of the Report.

**Figure 2.14:** Household saving and change in net wealth (% of household disposable income, 3-year moving average)



Source: Statistics NZ; Reserve Bank of NZ

**Figure 2.15:** Contributions to changes in net wealth



Source: Reserve Bank of NZ; Hodgetts, Briggs et al (2006)

### 2.2.3 The adequacy of household wealth and assets

While an important issue, saving for retirement is but one reason for households to save. The view of the SWG is that, based on a number of recent studies using household survey data, there is relatively little problem currently with retirement savings.<sup>4</sup> The government provision of NZ Superannuation, combined with private savings, means that there is little poverty among the aged (especially when New Zealand is compared to other developed countries). There are nevertheless significant problems with national saving. Even for retirement saving the SWG has concerns about whether many younger people are saving adequately for their retirement – in a different world from that of their parents with falling home ownership rates, student debt and worries about the sustainability of NZ Superannuation.

Furthermore, the SWG considers that wealth accumulation in New Zealand has been inadequate for reasons that reflect both inadequate national saving rates and poor asset choices. Evidence supporting the SWG's view is provided in Section 9.1. The evidence is ambiguous, not only because of data problems, but because the links between saving levels and wealth levels are not straightforward.

Even if most households have adequate retirement savings (and they may be adequate only on the presumption that NZ Superannuation is sustainable), it does not follow that the country overall has adequate wealth. A key reason is that New Zealand operates a pay-as-you-go government retirement scheme in which pensions are paid directly from tax receipts and, apart from the NZ Superannuation Fund, there is no national saving or wealth accumulation involved.

### 2.2.4 The need to entrench higher household saving

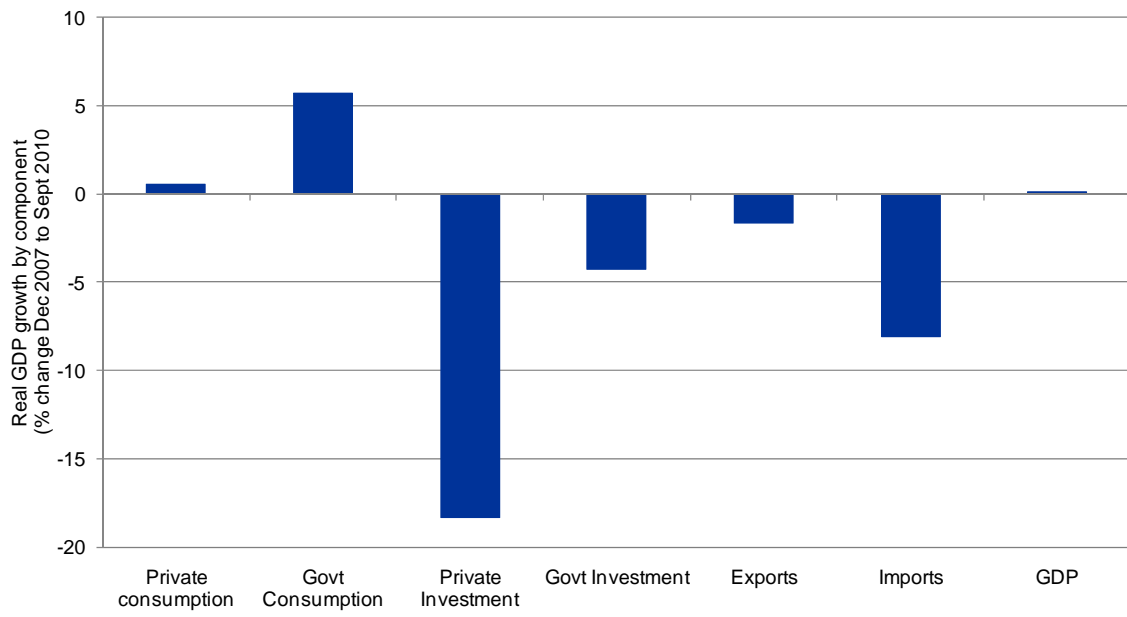
While the recent economic downturn has closed the gap between domestic saving and net investment, this is as much due to a fall in investment levels as a turn-around in saving behaviour. Indeed, as economic activity recovers, unless there is a major shift in saving patterns, the difference between domestic saving and investment and hence the size of the current account deficits are expected to continue to be large.

It is too early to tell whether the recent improvement in household saving will develop into a structural change in behaviour. Recent data suggest that households are still dissaving, albeit at a lower rate. The increase in private saving has also been offset by public sector dissaving. In fact, available data suggest that there has not been much rebalancing at an aggregate level. Consumption to GDP has been steady, while private investment and imports have fallen substantially – trends typically observed in the aftermath of recession (see Figure 2.16 below). The problem remains of low national saving relative to investment. The SWG therefore believes it is important to support and entrench any shifts in household behaviour that may currently be underway.

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<sup>4</sup> Refer, for example, to: Claus and Scobie (2002), Gibson and Scobie (2001), Le, Scobie *et al* (2009), Scobie and Henderson (2009) and Le, Gibson *et al* (2010).

**Figure 2.16:** Real GDP growth by components (% change December 2007 to September 2010)



Source: Statistics NZ

# 3 Implications of New Zealand's national saving position

## 3.1 Vulnerability

New Zealand's high level of NFL, at around 85% of GDP, is cause for concern:

- It makes New Zealand vulnerable to sudden shifts in international market sentiment, which can cause financial shocks and serious economic and social disruption.
- It limits the country's capacity for additional borrowing and options for dealing with unexpected problems (a foot-and-mouth outbreak, earthquakes, etc.) and emerging problems (an ageing population, climate change, energy and water shortages, technology change, low productivity, slow growth, increasing trade competition).
- The burden of servicing the liabilities lowers income available for other uses.

As a country's debts grow, markets become more cautious, credit ratings are downgraded and the cost of debt, including the cost of rolling over existing debt, rises. A tipping point in sentiment can be sudden, giving a country little time to adjust and can cause a "sudden stop," which means a sharp reduction in capital inflows and a painful economic slowdown. Borrowing costs rise and the currency weakens. Slower growth erodes the tax base, causing concern about fiscal sustainability.

Is a sudden stop inevitable? No. However, the SWG's view is that New Zealand's current position increases the risk of such an outcome. Recent history is a stark reminder that adverse events, in a wide variety of forms, are not uncommon and withstanding them requires financial resources.

### Box 2: What a sudden stop could look like

New Zealand's continuing ability to sustain its foreign debt position is strongly influenced by investor confidence and economic performance. Given the importance of agricultural exports to the economy, one possible trigger for a sudden stop could be a negative terms of trade shock. Another could be a sudden shift in market sentiment, triggered by concern about European debt.

A sharp drop in dairy prices could cause New Zealand's trade balance to deteriorate and growth expectations to weaken. Farmers' and exporters' ability to service their debts would be impaired. Higher non-performing loans would cause credit conditions to tighten. Weakening sentiment would reduce the exchange rate, raising the cost of imported inputs. Investment would probably fall sharply.

A vicious feedback loop would emerge as the economy moved closer to its debt threshold. Weaker perceived creditworthiness would increase interest rates on foreign debt and reduce the availability of financing, making servicing debt even more difficult and causing rising bankruptcies and falling consumption. Declining demand, higher unemployment and lower expected income streams would cause the prices of domestic assets to fall. This would lower collateral values, further tightening borrowing constraints. Currency depreciation would amplify the impact on balance sheets by raising the local currency value of foreign liabilities that are denominated in foreign currency. A critical issue would be the government's fiscal position and ability to sustain its levels of activity.

As the outlook for the economy deteriorates, speculation over the sustainability of debt levels would grow, until external borrowing freezes up. Because New Zealand's foreign debt is largely denominated in New Zealand dollars, the country does not have large foreign currency debts. It also has a flexible exchange rate and so most of the current account adjustment may be expected to come through a substantially weaker exchange rate and a rapid reversal in the current account deficit, which would not be all bad news.

But the adjustment that a sudden stop imposes is very painful. The decline in domestic credit and output is severe as the economy is forced to deleverage over a very short period. The government and banks may also be required to repay short-term debt at short notice. Because it takes time for the export sector to respond to the weaker currency, much of the improvement in the current account balance over the short-term is likely to come through a substantial fall in imports and domestic investment. The resultant fall in output and reallocation of resources from the non-traded to the traded sector may well cause a large and persistent unemployment shock.

Tax revenues also fall, the capacity for the government to borrow falls and pressure on government services rises. Ultimately, these effects mean the government is constrained from paying income support and other programmes at a time when demand is likely to be higher.

If the stress on business and household balance sheets is sufficiently severe or domestic banks have problems refinancing maturing loans, the sudden stop could produce a bank crisis. In this case, the contraction in output would be even larger as financial disruption results in an even sharper decrease in credit extension. This would also threaten the government's balance sheet if the government is forced to bail-out systemically important financial institutions.

Research by Reinhart and Rogoff (2009) suggests that financial crises result in severe and protracted recessions that generate large increases in unemployment. Unemployment increases, on average, by 7 percentage points and lasts for four years on average. Output declines by over 9% but tends to recover faster than employment, with a duration of about two years. The real value of public debt tends to balloon, rising by 86% on average during post World War II financial crises.

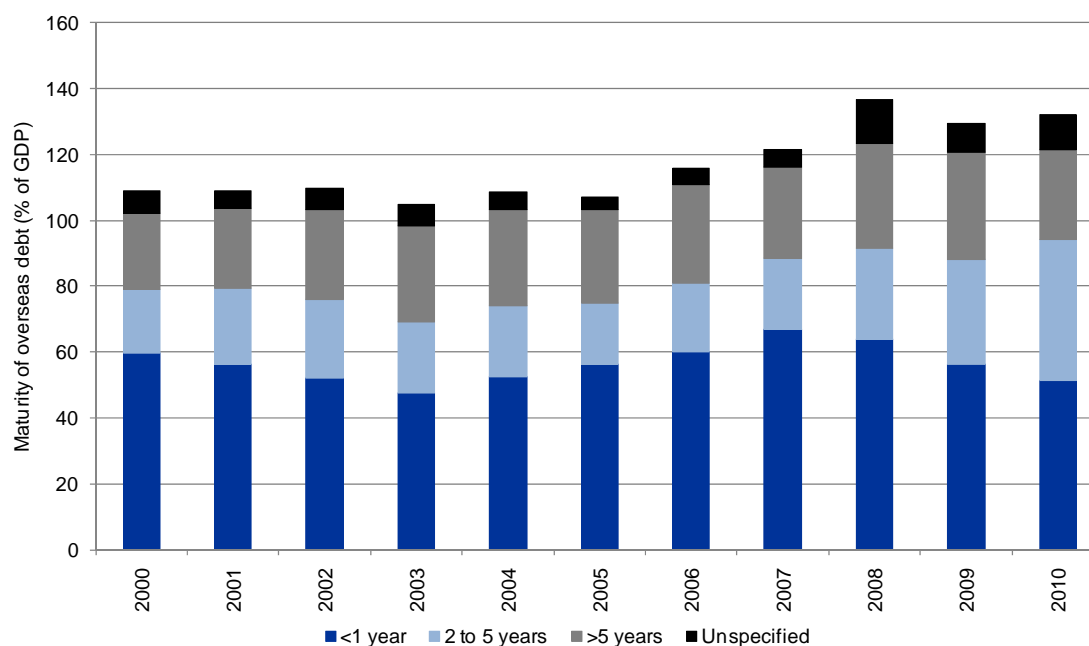
Country experiences suggest the availability of fiscal and monetary buffers, along with a flexible currency and openness to trade, play an important role in preventing shocks from causing full blown sudden stops (Bordo 2006). Sound prudential management of the banking sector also protects against an abrupt rebalancing exploding into a banking crisis.

Section 9.2 contains more material on the probability of a sudden stop happening in New Zealand, while Section 9.3 has three examples of how financial and economic crises came out of the blue. This includes the example of New Zealand's experience after the 1987 share market crash.

### 3.1.1 Macroeconomic vulnerabilities are of concern in New Zealand

New Zealand relies heavily on short-term offshore borrowing – about 40% of debt matures within one year (Figure 3.1), which increases vulnerability to sudden changes in sentiment because of “rollover risk.” In the wake of a shock, this risk could cause domestic banks to restrict loans to households and businesses, reducing growth and investment, as occurred during the GFC.

**Figure 3.1: Maturity of overseas debt**



Source: Statistics NZ

Note: 2000 to 2009 are December years; 2010 is a September year.

New Zealand's vulnerability has some mitigating factors:

- Most (93%) of the country's foreign debt is hedged back to New Zealand dollars, limiting the impact of a weaker currency on the cost of servicing foreign currency denominated debt.
- A flexible currency also helps external rebalancing, as happened in the Asian crisis in 1998 when currency depreciation reduced the current account deficit by increasing export competitiveness and reducing demand for imports.
- Space for fiscal and monetary policy gives policymakers the flexibility to respond to unexpected shocks – by cutting interest rates and providing fiscal stimulus to buffer the economy – although the recent deterioration in New Zealand's fiscal position has reduced the government's ability to respond to any shocks in the near term.
- The relationships between main local banks and their parents in Australia, as well as the Reserve Bank's new liquidity policy, have helped ensure that the funding lines of domestic banks have remained open in spite of problems in credit markets.

These institutional factors help to reduce the immediate risk of a crisis for New Zealand, but the risk is still high and increasing.

The Treasury (2010b) estimates that stabilising NFL requires an increase in national saving equivalent to about 2% of GDP, but to reduce NFL to a safer level requires an increase in national saving of about 4% of GDP.

The IMF (2010a) also estimates that stabilising NFL would require the real effective exchange rate to depreciate by 20%, and a reduction of NFL to 75% of GDP over 15 years would require the real effective exchange rate to depreciate by 25%.

These are potentially very challenging adjustments for the New Zealand economy and community, and delay will increase, not reduce, the challenge.

The recent experiences of Iceland, Ireland and southern European economies highlight the vulnerability of debtor nations to tightening credit conditions. New Zealand's resilience in the face of the GFC reflected a low level of public debt and the soundness of the country's macro-financial institutional arrangements.

Withstanding future shocks requires the rebuilding of the country's unused borrowing capacity, particularly its fiscal buffer by returning the government's net debt-to-GDP ratio to where it was before the GFC. Over the longer term, the focus of policymakers should be on developing a more robust and sustainable economy, and the creation and maintenance of incentive structures that support preferences for investment and saving over debt-financed consumption and ensure prudent risk management.

## 3.2 Growth and efficiency

### 3.2.1 Issue

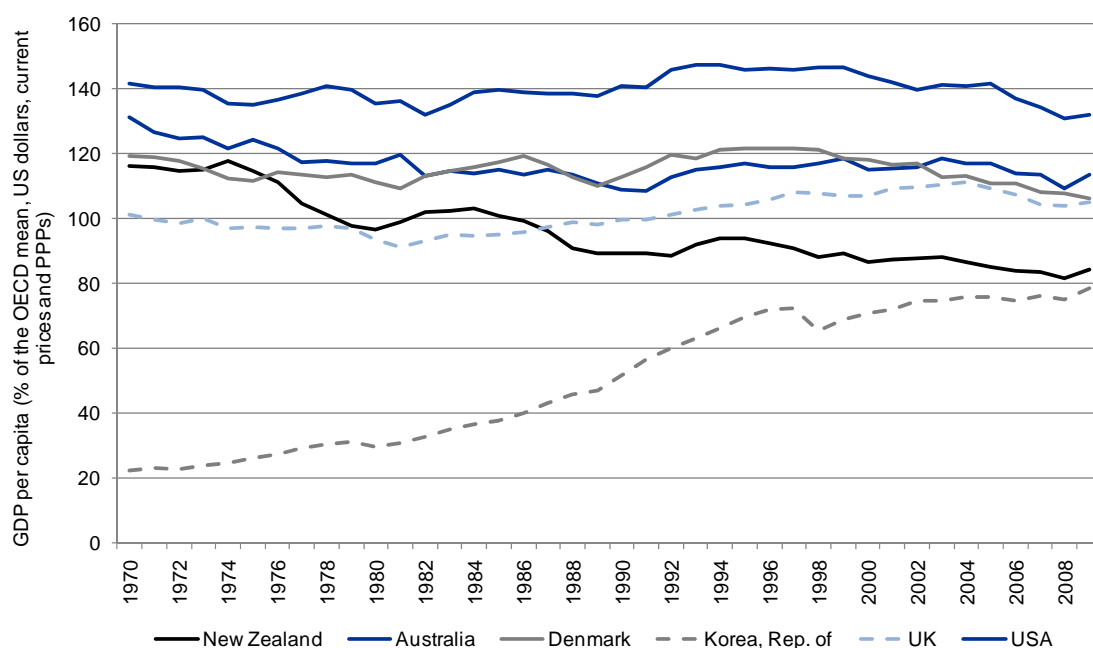
New Zealand's per capita GDP and income levels and growth rates have lagged the OECD countries that it aspires to emulate, and continue to do so. While a range of complex factors are likely to be responsible, there are compelling reasons to include the low level of national saving as one of them.

### 3.2.2 Features of poor growth and links to saving

*New Zealand's level and growth of GDP per capita are relatively poor*

In 2009 New Zealand ranked 21<sup>st</sup> out of 32 OECD countries in GDP per capita and in net national income per capita. Over the last four decades, it has slipped steadily down the rankings and the slide is continuing with little sign of the policies or the will that will arrest it.

**Figure 3.2:** GDP per capita as a proportion of the OECD mean



Source: OECD Factbook 2010

New Zealand's growth rate of GDP per capita was above the OECD mean prior to the 1970s, but has been mostly below (or similar) ever since. Its period of intensive reform in the late 1980s and early 1990s generated valuable efficiency gains, but the pace of reform slackened markedly after this, and many policy settings are now not supportive of a competitive, sustainable economy. Moreover, countries at a lower level of GDP per capita can normally expect to grow faster than rich countries close to the global technology frontier – but New Zealand has not experienced catch-up growth of this nature.

*Closing the gap is a big challenge*

In order to close the 2008 GDP per capita gap with the OECD average (32 countries) within 15 years, New Zealand's GDP per capita would need to grow by an annual average of one percentage point more than the OECD mean. To close the gap with Australia over a similar time span, New Zealand's annual average growth would need to outpace Australia's by 2 percentage points.

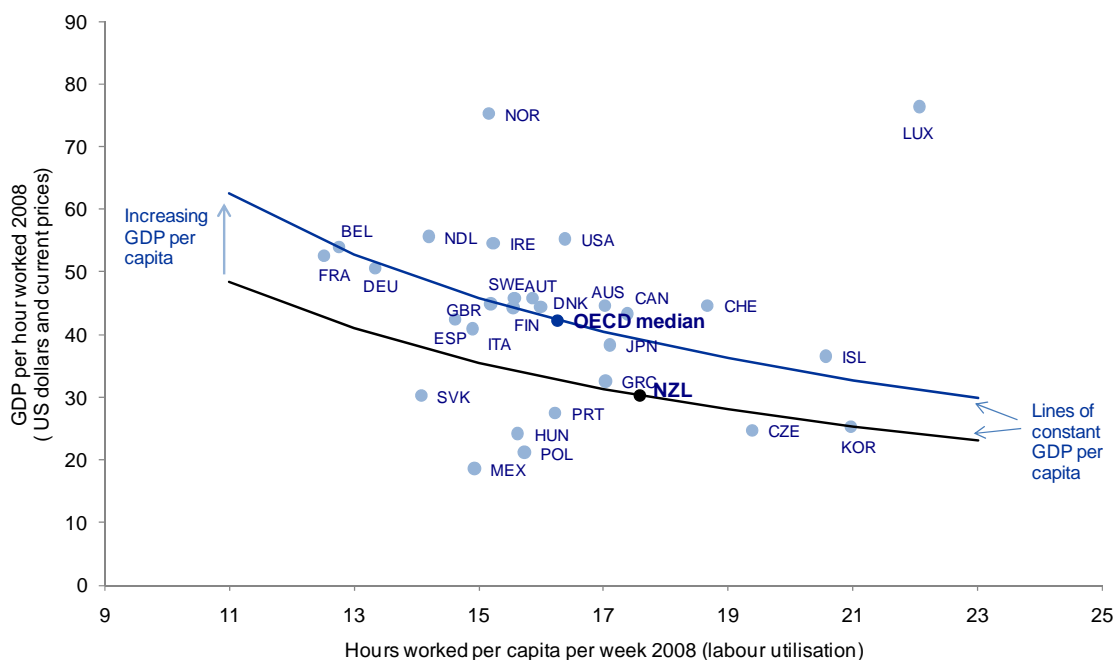
Examples of OECD countries that have successfully arrested a slide in their OECD GDP per capita rankings include Australia and the UK. Of the 28 OECD countries with available data, Australia ranked 5<sup>th</sup> in 1950. It troughed at 13<sup>th</sup> in 1991 and improved to 6<sup>th</sup> in 2009. The UK ranked 8<sup>th</sup> in 1950, troughed at 17<sup>th</sup> in the early 1980s and was 14<sup>th</sup> in 2009

*New Zealand's gap is the result of low labour productivity*

The gap between New Zealand and the richest OECD countries is largely in labour productivity since New Zealand's labour utilisation is significantly above most OECD countries (Figure 3.3). This indicates a lot of hours worked but not very productively, and for modest reward.

Available evidence suggests that New Zealand's low level of labour productivity reflects both a low capital-to-labour ratio and a low level of multi-factor productivity (MFP) – an indicator of the effectiveness with which labour and capital inputs are combined to produce valuable outputs.

**Figure 3.3: Labour productivity and utilisation, 2008**



Source: OECD country profile 2010, OECD productivity database



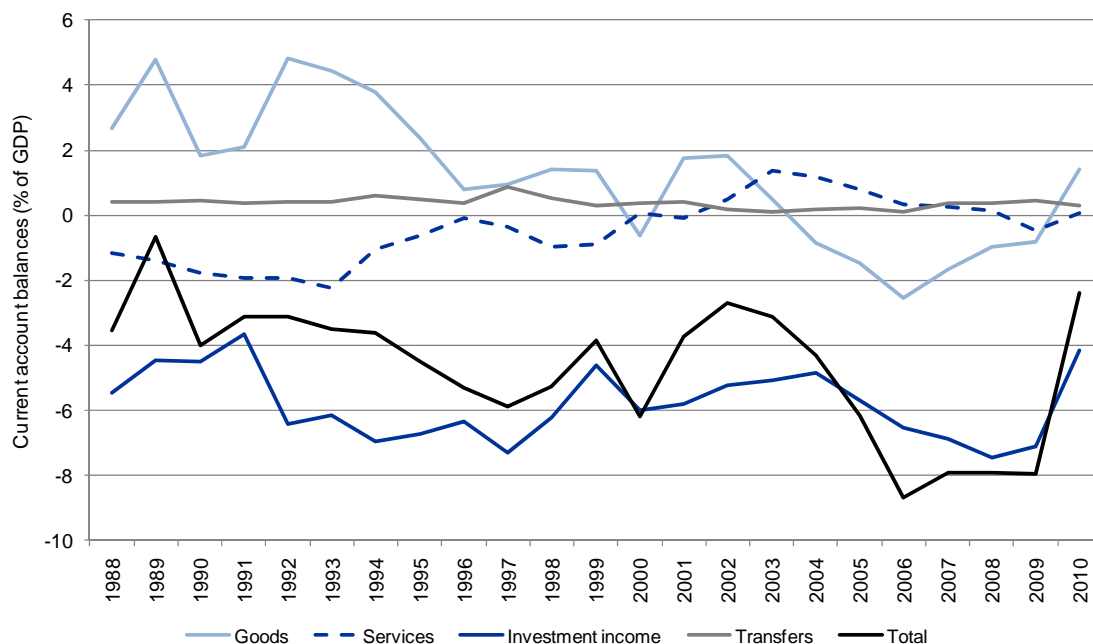
### New Zealand's growth has been driven by the wrong things

New Zealand's growth in the period leading up to the GFC(2002 to 2008) was associated with rapid credit expansion, fast growth in consumption, high external borrowing, low private saving, a house and farm price boom, high government tax revenues and spending, and static tradable sector growth. Growth on this basis was unsustainable and had several negative consequences including rapid growth of private-sector debt and a high NFL-to-GDP ratio (Figure 2.7).

There are important connections among these factors and the disappointing growth outcomes.

Low saving is associated with lower wealth accumulation and lower income. New Zealand's external investment income balance is a large negative number – around \$13 billion or 7% of GDP in 2009 (this reduced to \$7.6 billion or 4% of GDP in 2010). It is a large component of New Zealand's current account deficit and an important driver of rising NFL to GDP (Figure 3.4).<sup>5</sup>

Figure 3.4: Current account balances (% of GDP)



Source: Statistics NZ

Easy access to credit (particularly for property financing) was associated with rapidly escalating farm and house prices.

The property boom in turn led households to feel wealthier and increase their consumption. Strong growth in nominal GDP buoyed tax revenues and encouraged often ill-judged growth in government spending.

<sup>5</sup> The figures are interest payments in *nominal* terms and so include an element of capital repayment to the extent that the real value of the principal (while constant in nominal dollars) is reduced by inflation. For example, a 2% inflation rate would reduce a nominal interest rate of 7% to 5% in real terms.

### High private and government consumption have unbalanced the economy

High growth rates of private and public consumption created inflationary pressure that led the Reserve Bank to raise the official cash rate. This, in turn, pushed up the exchange rate.

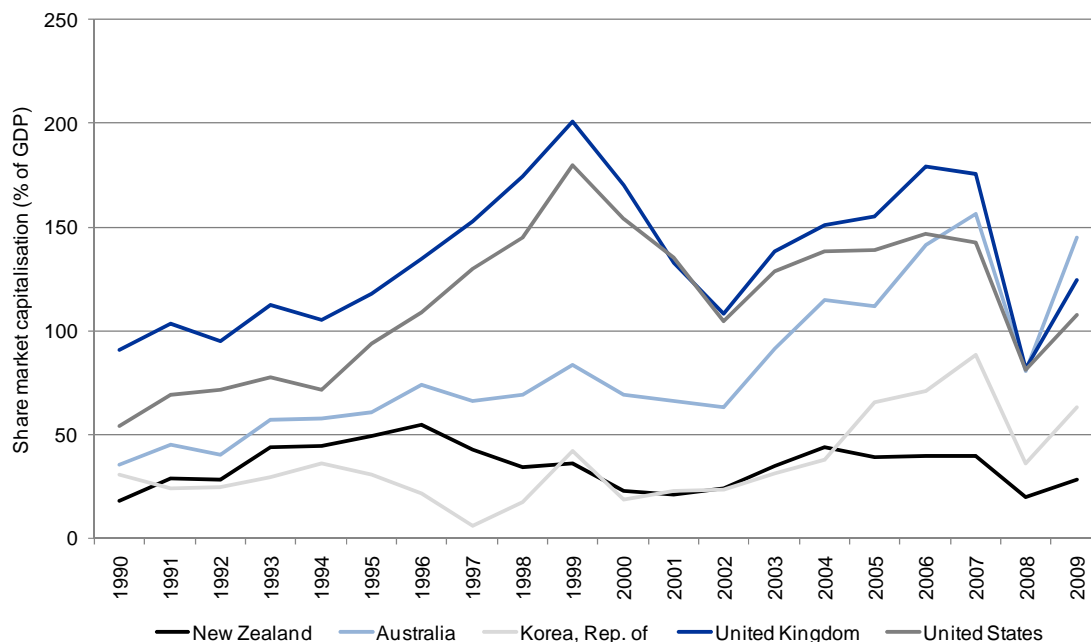
This standard monetary policy response led to unbalanced growth: reduced exports and increased imports, with a rise in the proportion of domestic resources going to non-tradable production and a reduction in the proportion flowing to tradable production.

It is likely that the reduction in export competitiveness has, in turn, slowed productivity growth. There is evidence that a lower exchange rate creates opportunities for high-productivity firms to grow, achieve scale through exporting, and contribute a range of spill-over benefits to other firms. In contrast, what happened is that non-tradable industries such as construction and property and business services expanded rapidly and attracted labour and other resources at the cost of their availability to export industries such as agriculture and food processing.

### Low national saving can depress growth through several other channels

Low saving and wealth accumulation through property investment has meant there has been little accumulation of assets that are traded on financial markets. In turn, this has contributed to the under-development of New Zealand's capital markets. This is likely to have had a negative impact on business investment, business growth and productivity – and economic growth generally. One facet of capital-market development is illustrated in Figure 3.5 – growth in the value of companies traded on national share markets relative to GDP.

**Figure 3.5:** Share market capitalisation (% of GDP), 1990-2007



Source: World Federation of Stock Exchanges, OECD Stats Extracts

The build-up of NFL and the inflation pressure from the imbalance between domestic investment and saving are the most likely explanations for New Zealand's high real interest rates and cost of capital. These then reduce the incentive to invest and have contributed to New Zealand's lower capital intensity compared with other countries such as Australia and the US (Figure 2.5). This lower capital per worker is a factor in New Zealand's underperformance in labour productivity.

And New Zealand's increased vulnerability from rising foreign indebtedness depresses growth prospects through one of two mechanisms: (i) a sudden stop that would result in a large loss of output; or (ii) an extended erosion of confidence and competitiveness leading to lower investment, greater outward migration of skilled people and entrepreneurial talent, and fewer firms with high growth potential.

New Zealand's growth performance also undoubtedly suffers from the economy's small size and distant location, and particularly the combination of these features, which have not been offset by astute policy, innovation or internationally competitive firms.

#### *Growth outlook*

New Zealand's growth outlook appears, if anything, worse than past performance. Future trend growth is forecast to fall back from pre-crisis levels of around 2% per annum in GDP per capita to around only 1.5%. While the government's initiatives to date in tax reform, investment in infrastructure, and better value in the public sector will all be positive for growth, more will be required to lift growth to achieve a meaningful closing of the gap with other countries such as Australia.

# 4 Factors contributing to New Zealand's national saving performance

## 4.1 Introduction

We have seen that a key problem for New Zealand is low saving and low wealth accumulation. This section looks at the underlying factors that help explain these features. An important question is whether government policy together with any other factors have been responsible for this limited wealth accumulation even if individuals are saving enough for their own purposes. The pay-as-you-go (PAYGO) nature of NZ Superannuation plays a key role here.

Two high-level insights should be kept in mind. First, how much wealth is accumulated by an individual and by society as a whole depends not only on the average saving rate, but whether people save early in life (and accumulate assets before spending) or save late in life (and pay down debt after spending). Secondly, there is no automatic link between debt levels and saving and wealth because debt can be used for many different purposes. Borrowing to consume clearly reduces saving and wealth, but borrowing to invest in a productive asset does not. Purchasing existing assets at inflated prices is investment of a sort but is not generally productive for the economy as a whole. Moreover rapid rises in the prices of existing property assets are unlikely to resume in the near or medium-term future.

## 4.2 Households

### 4.2.1 Incentives and disincentives for household saving and building wealth

The following incentives and disincentives affect both the amount households save and the composition of assets that they choose to hold their wealth in:

- *Asset price inflation*: When asset price inflation is high – as in the mid-2000s when house prices in New Zealand were rising strongly – households try to increase wealth by borrowing to buy rapidly appreciating assets, rather than by saving part of their income. The effect on saving from the purchase and sale of assets of this type depends on how fast the new owner pays off the loan and how fast the seller consumes the proceeds. Generally, low rather than high house price-inflation is a better environment for strong household saving.
- *Interest rates*: Nominal interest rates began to decline in the early 1990s, as CPI inflation fell to low levels. Other factors encouraged the decline, such as the deregulation of the financial sector both here and overseas, which increased competition among loan providers. Growth in the surpluses of emerging economies and oil-producing countries also provided a growing source of funds for developed economies and also had a downward impact on interest rates. For the household sector, low interest rates tended to make saving, especially saving in bank deposits, less attractive. Conversely, together with deregulation, they made borrowing and the advance of consumption more attractive.

- *Monetary policy:* Interest rates were reduced sharply following the onset of the GFC (GFC) to stimulate the economy. So savers who were using interest-bearing instruments seemed to miss out twice – firstly during the earlier period of faster credit growth and relatively low interest rates – when higher interest rates might have had a useful moderating influence, and secondly during the post-recession period when nominal interest rates were very low to encourage growth. Savers lost out at both ends!
- *The rise in household debt:* The fall in nominal interest rates that began in the early 1990s meant that households could borrow more to buy houses. While banks would still set limits on borrowing – such as mortgage costs not exceeding 35% of household income – households could now borrow significantly larger amounts than previously, within the lenders’ criteria. However, the rise in borrowing was accompanied by a rise in total interest payments, and these payments have over the years risen as a proportion of total household income. They have therefore had a downward impact on disposable income, which in turn has reduced the household sector’s ability to save.
- *Contractual saving:* Research indicates that households are better savers when there is a regular contractual commitment – such as contributing to a superannuation scheme or paying off a mortgage. Payments into superannuation schemes began to decline after tax concessions ended in 1989, although they have risen again recently with the introduction of KiwiSaver. Home ownership rates have been falling in New Zealand since 1990, so a smaller proportion of the population can use “repaying the mortgage” as a saving strategy. More interest-only loans, especially during the period of high house price inflation in the mid 2000s, also reduced repayments of mortgage principal and therefore saving.
- *Subsidies:* The introduction of the KiwiSaver scheme has made saving more attractive to households as employers and government, as well as employees, make contributions to it. Some housing subsidies are available to first-home buyers, but the scale of these subsidies is less than in other countries, such as Australia – and housing subsidies have not prevented a fall in home ownership.
- *Taxes on saving:* Under an income tax, income that is saved gets taxed twice – when first earned and then as tax on the returns to savings (e.g., interest, dividends etc). In addition, the money will be taxed again under GST when it is spent. In contrast, income that is spent immediately is taxed only twice – as initial income and when it is spent. This difference distorts the decision to save and delays consumption spending. For this reason, national saving is likely to be enhanced by lowering income taxes and raising expenditure taxes. Other tax issues arise from the tax treatments of capital gains, owner-occupied housing, and rental housing; and the over-taxation of interest income and over-deduction of interest expenses because of inflation. Further discussion of these tax treatments follows later in the Report. Overall, an incongruous and distorting outcome of current tax policy is that simple saving products, such as a fixed-term bank deposit, which produce no capital gains or opportunities to write off expenses against taxable income, end up having the highest effective tax rate, by a substantial margin over, for example, housing.

- *The New Zealand share market:* Households tend to have a home-market and domestic-company investment bias but there is a limited choice of New Zealand stocks in the small and slow-growing New Zealand market. The NZX market capital-to-GDP ratio is about a third of the ratio in Australia, the UK and the US, and total returns from the New Zealand market over recent decades have been lacklustre, compared to other investments such as housing, and more volatile. Overall then, investing in the share market has not been a driving force for saving, although the thinness of the New Zealand share market might also be partly due to the low levels of domestic saving.<sup>6</sup>
- *Financial market events:* A large quantity of savings has been lost since 2007 from the failures of non-bank finance, property and other companies. Some savers were severely damaged and discouraged by this experience and there has been a fall in confidence in markets, institutions and advisors. While some steps have been taken to increase the oversight of non-bank finance companies it is not yet clear that these are adequate or will be effective. The wider impacts of the GFC have also reduced confidence in financial institutions and their saving products.
- *Housing market events:* A positive impact of the GFC on saving has been the strong recent moves by households to increase housing equity. Prior to the recession, households had been withdrawing equity from their houses, increasing mortgages for more spending money. But, since late 2008 the household sector has been increasing its equity in housing by paying down the principal on mortgages and this turnaround is showing in household saving figures. However, this effect may well be largely cyclical and short term, and go into reverse when normal economic growth resumes. In addition any increase in interest rates will make it harder to repay debt.
- *Disclosure, confidence and other issues:* Information on saving products is often not clear, complete, easy to understand or appropriate for products in the retail market, and information on fees and charges generally may not be clearly, fully or accurately stated. Essentially, the superior knowledge of the industry must be balanced by the quality of disclosure and the rights of customers. The recent experience of numerous company and other failures, large losses and a loss of confidence in advice, is a serious disincentive to saving. In addition, many household investors are likely to have difficulties in finding suitable information and advice on investing offshore: tax returns – accounting for overseas investments – are complicated, and currency risk is a factor.
- *Financial literacy:* A low level of financial literacy, and a lack of understanding about the relationship between risk and reward, can result in bad saving experiences and inhibit further saving. But, if disclosure is to a high standard, then the responsibility should lie with the customer, who should have a reasonable level of financial literacy.

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<sup>6</sup> Although the NZ share market is thin, the *Survey of Family Income and Employment (SoFIE)* shows that New Zealanders hold on average 22% of their net wealth in business and farms (Retirement Policy Research Centre 2010). Much of this investment is in private companies.

- *Growth in household incomes:* In general, people will find it easier to save when incomes are high and rising, but New Zealand incomes have been relatively low by OECD standards, and slow growing particularly in the lowest five income deciles. On the other hand, periods of slow growth and uncertainty are likely to encourage precautionary saving.

#### 4.2.2 Private-sector debt and factors affecting it

New Zealand private-sector debt at 30 June 2010 was \$315 billion and 166% of GDP. It was dominated by housing loans (54%), followed by business (39%) and agriculture (26%).

**Table 1:** Private-sector debt as at 30 June 2010

| Sector                    | Amount<br>(\$ billion) | % of GDP    |
|---------------------------|------------------------|-------------|
| Household debt            |                        |             |
| Housing loans             | 170                    | 90%         |
| Consumer loans            | 12                     | 6%          |
| Total                     | 181                    | 96%         |
| Student loans             | 11                     | 6%          |
| Business loans            | 73                     | 39%         |
| Agricultural loans        | 49                     | 26%         |
| <b>Total private debt</b> | <b>315</b>             | <b>166%</b> |
| Net foreign liability     | 163                    | 86%         |

Source: Reserve Bank of NZ; Ministry of Education Student Loan Annual Report

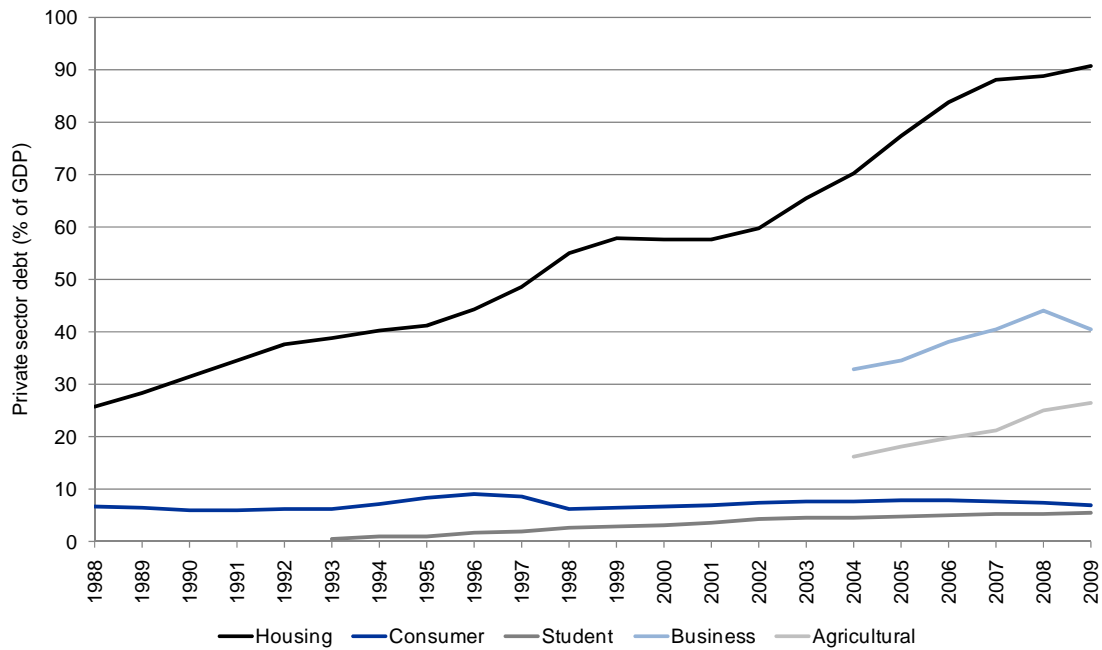
Note: These figures do not include debt issued by directly by non-financial business organisations, e.g., corporate bonds.

Net Crown debt then was \$20 billion (11% of GDP), although this had increased to \$35 billion (18% of GDP) by the end of October 2010, and New Zealand's NFL (30 September 2010) was \$162.5 billion – 85.2% of GDP.

The main contributors to New Zealand's NFL are housing, business and agricultural loans. If these were half their current totals, the net foreign liability would be just 8% of GDP, and New Zealand would have no vulnerability issue.

The history of the sectoral debt balances is shown in Figure 4.1 (data not available for business and agriculture before 2004).

**Figure 4.1: Private-sector debt 1988-2009 (% of GDP)**



Source: Reserve Bank of NZ

All sector debt, except consumer credit, has been rising as a percentage of GDP.

To identify sensible policy options, it is important to understand the drivers of these debt totals.

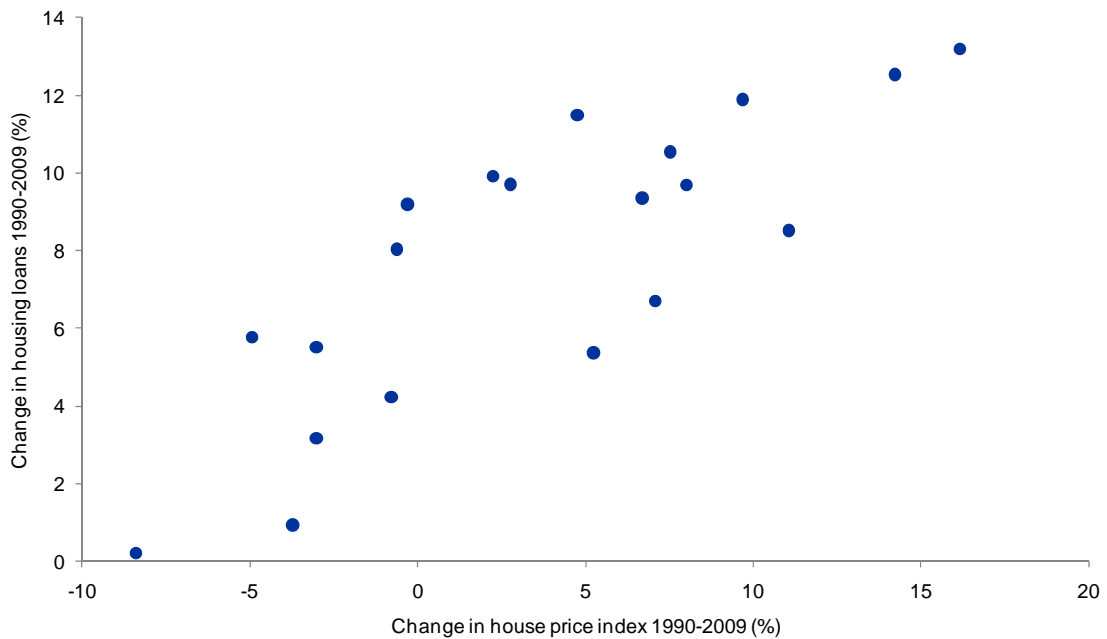
### Housing loans

Housing loans are taken out mainly by people in their 20s and 30s and repaid over the next 25 to 30 years, with debt levels determined by purchase prices. The lenders are mainly older people and foreigners. An increase in property prices raises debt levels as young people take out much larger mortgages than older people are repaying. Ellis (2005) has demonstrated that rising property prices have had a major role in increasing debt levels in Australia and that this effect can occur even when all households can meet their mortgage repayments. The simple relationship between the Reserve Bank house price index and household debt shows that a 1% increase in real house prices leads to about a 0.5% increase in total real mortgage loans (Figure 4.2).

What determines house prices? Research indicates a reasonably long list including building costs, incomes and factors affecting the supply of land for building new houses. However, here we examine two other important influences: taxes and migration.



**Figure 4.2:** Real housing loans vs. real house price index, 1990-2009 (% changes)



Source: Reserve Bank of New Zealand

#### Taxes and house prices

A simple pricing model for property investment based on a required risk premium for after-tax returns relative to the after-tax returns on government bonds indicates that the favourable tax treatment of property investment relative to neutral treatment accounts for a good proportion, about 50%, of house price increases (Table 2).

**Table 2:** Estimated impact of concessional tax treatment on real house prices, 2001-2007

|  | Marginal investor             |                |
|--|-------------------------------|----------------|
|  | Residential property investor | Owner-occupier |
| Actual gain in real house prices                 | 88%                           | 88%            |
| Gain in house prices under neutral tax treatment | 47%                           | 41%            |
| Gain in prices due to tax concession             | 42%                           | 47%            |
| % of price growth due to concessional tax        | 47%                           | 53%            |

Without a capital gains tax, the only way to reduce the tax distortion on property prices would be at the very least to reduce taxes on financial assets, the main investment alternative.

In short, a lower rate of tax on the returns from (especially) long-term savings would provide a higher after-tax return and thus a more attractive alternative to property investment. This would be likely to restrain house prices and therefore aggregate mortgage debt.

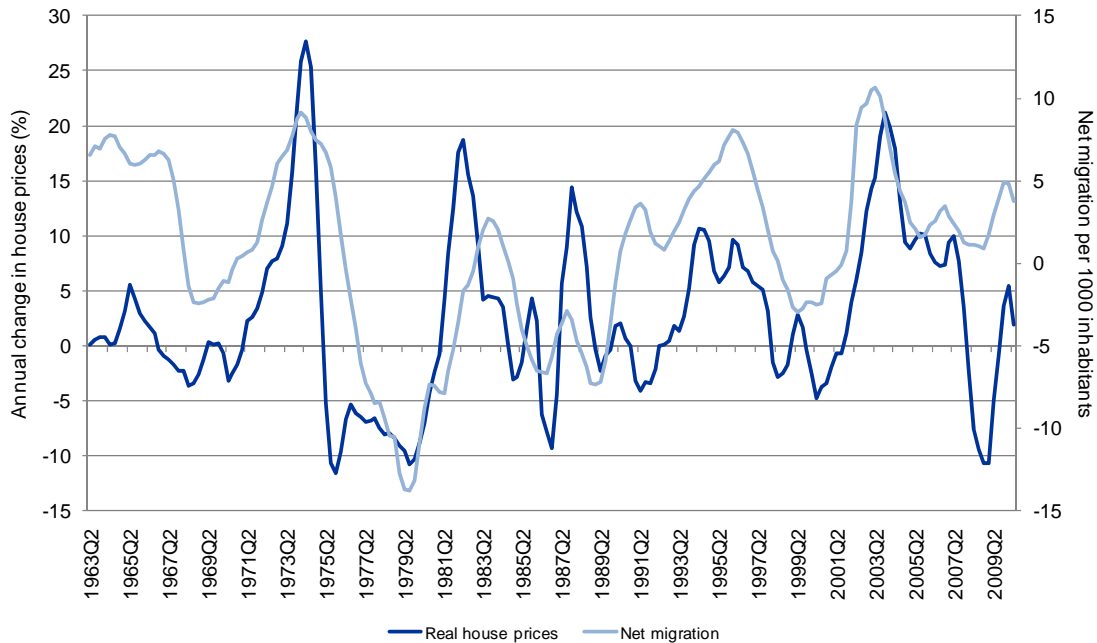
Options for lower taxes on income from savings are discussed in Section 7.2.

#### Migration and house prices

The history of house price increases and net migration flows in New Zealand is shown in Figure 4.3.

The relationship between migration flows and housing prices has been analysed by Coleman and Landon-Lane (2007). They found that a net immigration flow equal to 1% of the population (10 per 1000 inhabitants) is associated with an approximately 10% increase in house prices. This relationship has existed since the 1960s. Limiting immigration swings could therefore lead to a substantial reduction in future house prices and housing debt.

**Figure 4.3:** Annual change in house prices and annual net migration



Source: Coleman & Landon-Lane (2007); Reserve Bank of NZ; Statistics NZ

*Migration and total private-sector debt*

New Zealand’s population growth rate in recent decades has been rapid by international standards; from 1990 to 2007 it was the third fastest in the OECD.

A country with a rapidly growing population needs to devote resources to building more roads, schools, shops, houses, factories and so on than a country with a low rate of population growth. In a country with a relatively low national savings rate, rapid population growth will put sustained upward pressure on real interest rates and, in turn, the real exchange rate, making it harder to achieve the per capita income gains that people (and the government) aspire to.

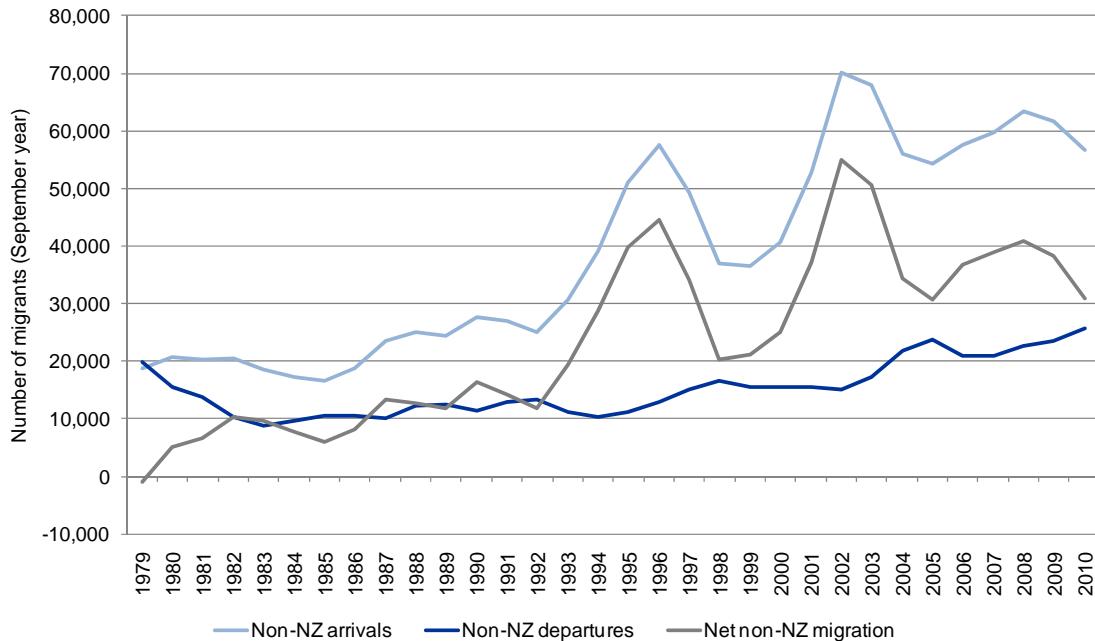
Countries with rapid rates of population growth will also tend to have, all else equal, more negative net foreign asset positions.<sup>7</sup>

New Zealand’s birth rate, although not much above replacement, is relatively high by OECD standards but the rate of total population growth is largely a matter of policy choice.

<sup>7</sup> See, for example, Lane and Milesi-Ferretti (2001).

Since New Zealand's economic performance deteriorated in the middle to late 1970s there has been a large and persistent annual net outflow of New Zealanders. For the first 15 years of that outflow, the inflow of non-NZ migrants remained quite modest. But changes in migration policy in the early 1990s encouraged a much more rapid pace of inward migration: the net number of non-NZ migrants has been trending upwards strongly since 1992 (Figure 4.4).

**Figure 4.4: Permanent and long-term migration (non-NZ migrants)**



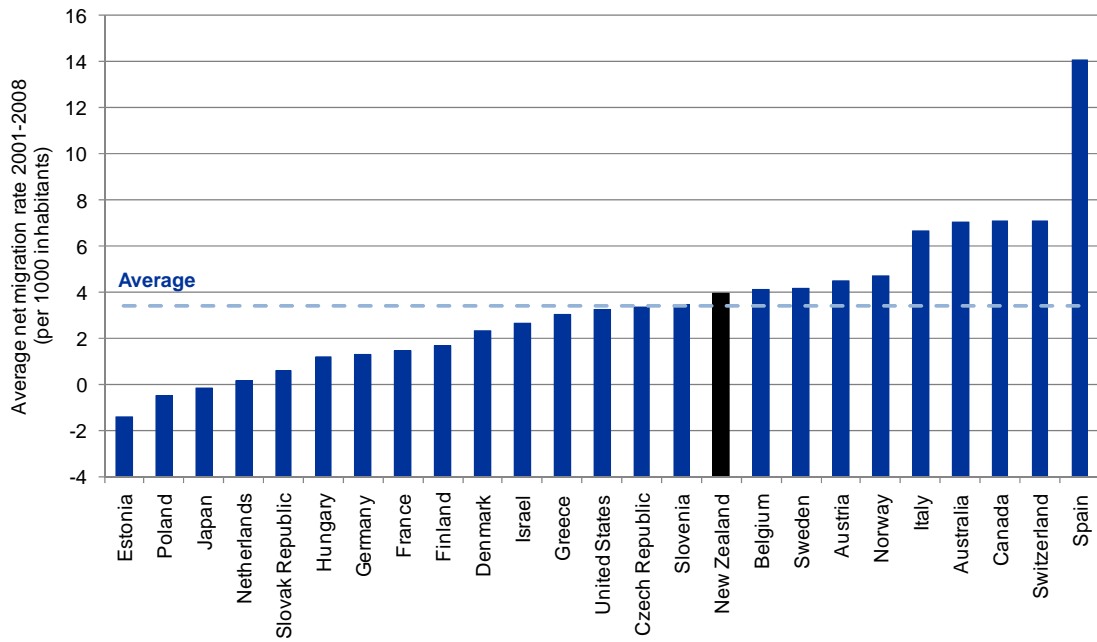
Source: Statistics NZ

New Zealand has a higher than average net migration rate (both NZ-born and non-NZ-born migrants) relative to other OECD countries (Figure 4.5) and, importantly, New Zealand's migration rate is more volatile (Figure 4.6).

There is little evidence that migration makes much difference to per capita incomes of the recipient countries<sup>8</sup> but it is plausible that, in the circumstances that New Zealand was in, the sharp change in migration policy since the early 1990s materially increased debt/GDP ratios.

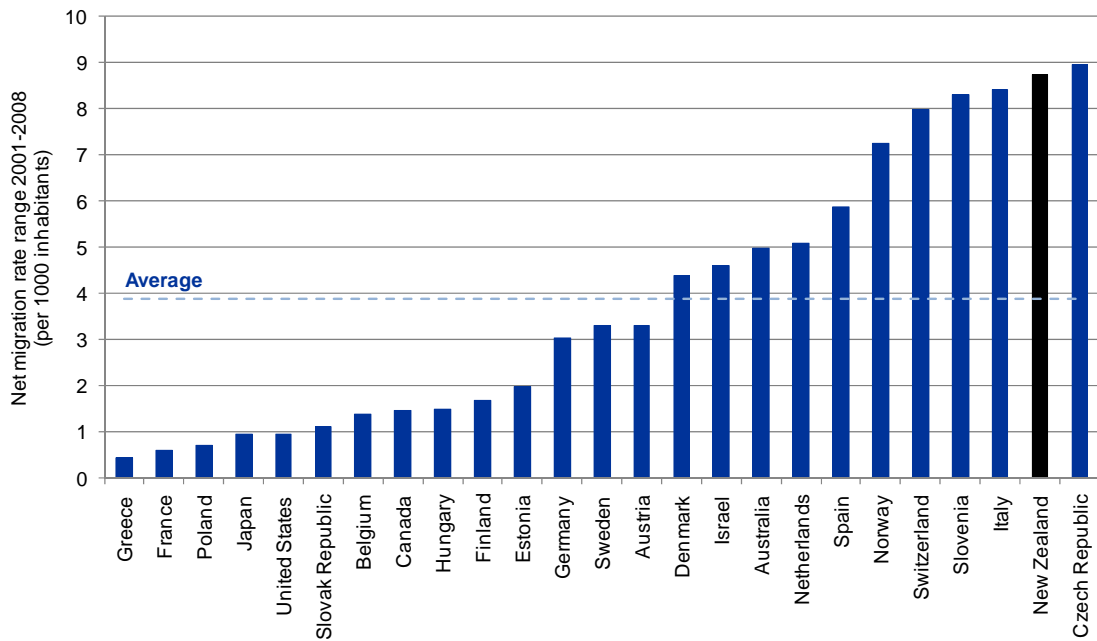
<sup>8</sup> The Australian Productivity Commission (2006) simulated the economic impact of a permanent increase in skilled migration of 50% on the level in 2004-05, and found that it would reduce average productivity, although there is a slight increase in per capita GNP. Most of the income gains accrue to the migrants themselves. However, for New Zealand, some research has found positive economic impacts of immigration (e.g., Hodgson and Poot (2010)).

**Figure 4.5:** Net migration for OECD countries, 2001-2008



Source: OECD

**Figure 4.6:** Range of net migration rates for OECD countries, 2001-2008



Source: OECD

The circumstances were:

- A high initial stock of foreign liabilities (around 60% of GDP in 1990).
- High initial real interest rates.
- A relatively low flow of national saving.

The big adverse gap in productivity between New Zealand and other countries opened up from the 1970s to the early 1990s. The policy choice that increased immigration – given the number of employers increasingly unable to pay First-World wages to the existing population and all the capital requirements that increasing populations involve – looks likely to have worked almost directly against the adjustment New Zealand needed to make and it might have been better off with a lower rate of net immigration. This adjustment would have involved a lower real interest rate (and cost of capital) and a lower real exchange rate, meaning a more favourable environment for raising the low level of productive capital per worker and labour productivity. The low level of capital per worker is a striking symptom of New Zealand's economic challenge.

Initial estimates are that if net immigration flows had been kept to 1980s levels, then NFL might be some 20% of GDP lower than they are now. This is a critical difference in terms of vulnerability and growth and arises because new residents require new capital stock immediately, which must be paid for, but only increase savings over the subsequent years, increasing the need for foreign borrowing.

Further, given the tight constraints applied to the supply of land for housing, less immigration might also have left New Zealand less exposed to the damaging house price booms experienced in the 1990s and the last decade.

#### *Unsustainable economic booms*

Policy action to reduce borrowing is an alternative means of increasing saving and wealth. It is possible that more can be achieved by influencing borrowing than by focusing only on raising saving. This is because saving is a substitute for borrowing (i.e., if prevented from borrowing, people may save to some extent), but borrowing is an offset for saving (if forced to save, people may borrow, offsetting the benefit).

A carefully-designed package of policies that took the heat out of the housing market and constrained consumer credit could easily be consistent with improved access of low-income earners to housing, through reducing pressure on house prices and diverting low-income earners' debt from consumer goods to housing.

Apart from tax changes that reduce the attraction of property investment, another possibility the SWG considers worth investigating is a requirement for higher levels of prudential capital against mortgaged lending during economic expansions. The effects on house prices, affordability of housing, and on small business funding would need to be considered.

## Summary

Private-sector debt is a major component of NFL. The largest component, housing debt, is primarily driven by house prices. Furthermore, the new capital requirements of an increasing population boost private-sector debt. Policy changes that could reduce the level of private-sector debt are:

- 1 Reducing the tax distortion that favours investment in housing over KiwiSaver, superannuation and simple saving products, thus reducing the bias that keeps property prices high and lowering aggregate housing debt.
- 2 Reducing net migration flows and their year-to-year volatility. This should reduce shocks to house prices and thus total housing debt, and reduce the growth of private-sector debt overall.
- 3 Unsustainable booms increase borrowing and debt accumulation, usually with adverse consequences for the whole economy. Policy action to reduce borrowing is an option for increasing saving and wealth on a more sustainable basis and should be considered (including higher prudential ratios against mortgaged lending during economic expansions).

## 4.3 Fiscal situation

### 4.3.1 Issue

New Zealand ran fiscal surpluses for about 15 years from 1994 to 2008. These surpluses strengthened the government balance sheet allowing net debt to fall from 1993, and net worth to rise through the period. This helped counter the growing private sector domestic and external indebtedness.

The government's operating balance went into structural deficit<sup>9</sup> in 2009 and is projected to remain in deficit until around 2015. The government is spending more than it is receiving in revenue and net public debt is projected to rise from 14% of GDP in 2010 to around 28% by 2015 and then fall back to 10% in 2025.<sup>10</sup>

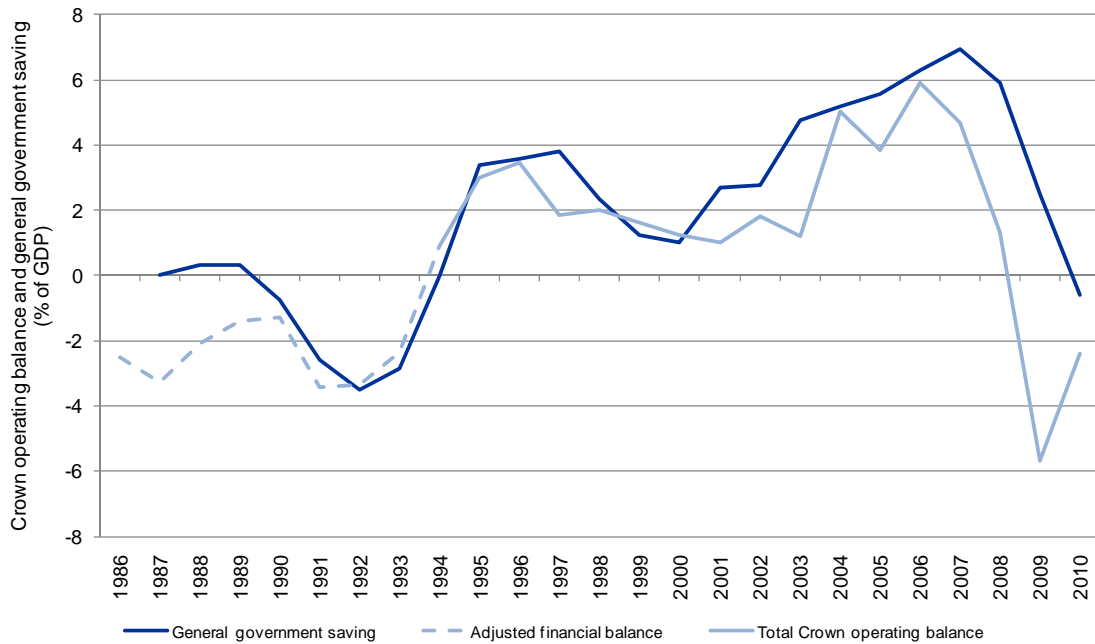
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<sup>9</sup> Here "structural balance" or "cyclically-adjusted balance" refers to the underlying balance after the effects of the business cycle – the booms and busts – have been taken out.

<sup>10</sup> The Treasury (2010a).

### 4.3.2 The move to structural deficit

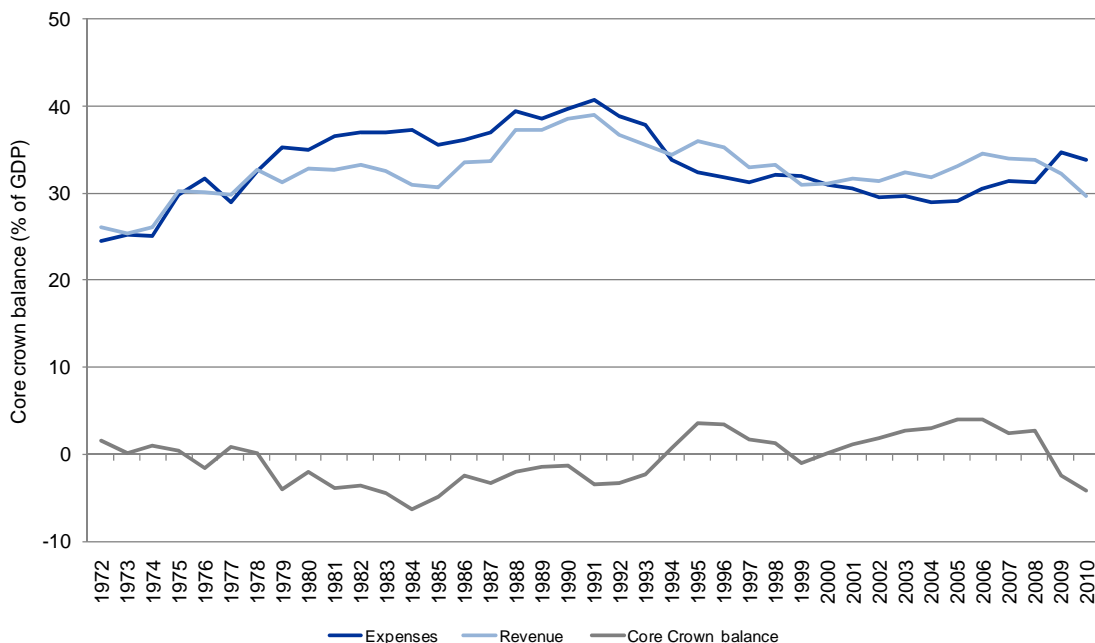
**Figure 4.7:** Fiscal surpluses from 1994 to 2008 parallel the period of strong government saving



Source: Statistics New Zealand; Treasury

Through the past decade the government and its advisers thought that increases in revenue each year signified a structural surplus (i.e., a positive fiscal balance on average over the economic cycle). Hence money was available that could be spent or returned to taxpayers as tax cuts. This indeed happened – spending ratcheted up and then taxes were cut in 2008 and 2009. But the “structural” assumption was wrong and when GDP growth slowed with the recession and the GFC, revenue fell from a decade peak of 34.5% of GDP in 2006 to 32.2% in 2009.

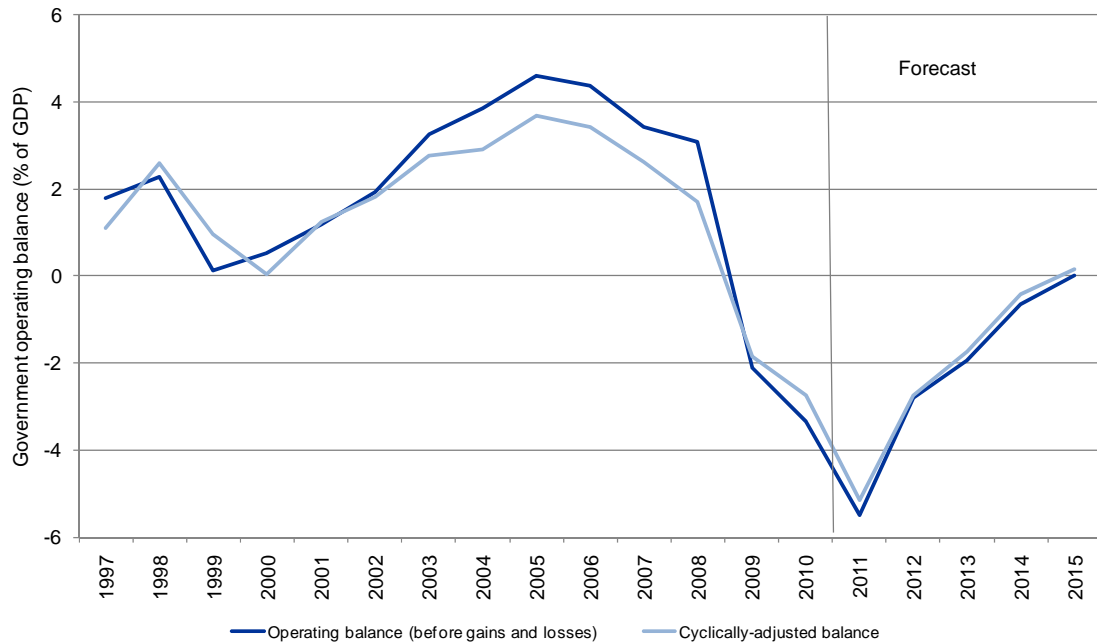
**Figure 4.8:** Core crown revenue trended up as a share of GDP from 2000 to 2008, dragging up core spending



Source: The Treasury

Core Crown expenses increased from 28.9% of GDP in 2004 to 34.7% of GDP in 2009, a rise of 5.8 percentage points over five years. About 3.5 percentage points of the increase occurred between 2008 and 2009. Part of this rise was cyclical as the 2008/09 recession drove up unemployment expenses and slowed the growth of nominal GDP, but this probably accounted for only about 1 percentage point of the rise.

**Figure 4.9:** Government operating balance went into structural deficit in 2009 with a return to surplus forecast only in 2015



Source: *The Treasury, Half-Year Economic and Fiscal Update 2010*

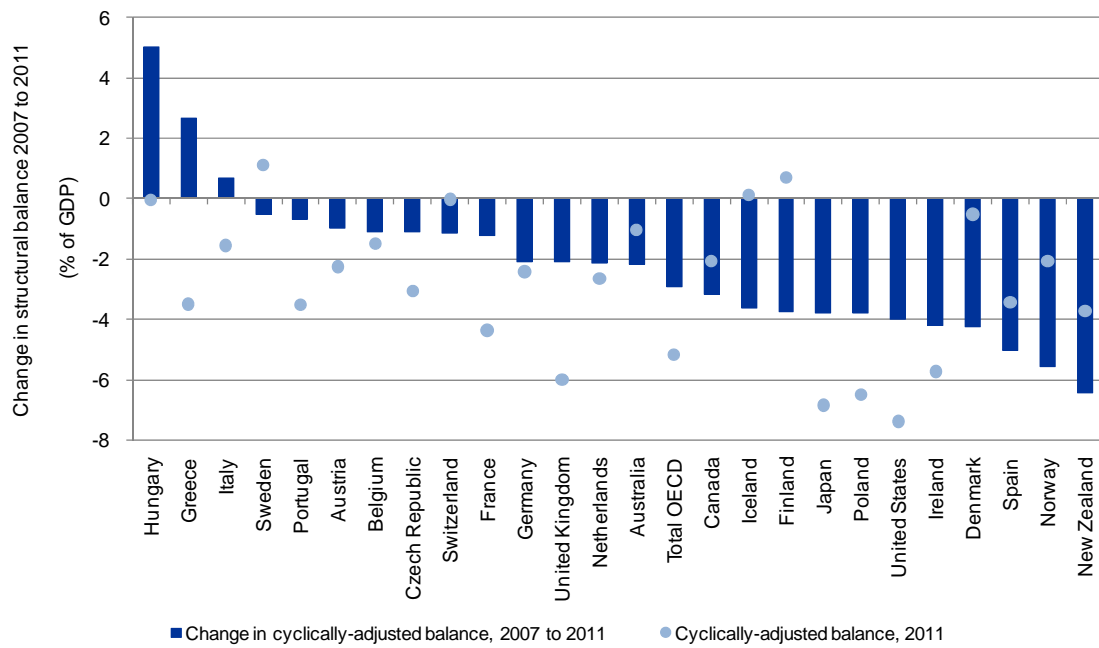
Policy decisions were the main driver in the rise of expenses as a share of GDP over the past decade. In 2008, New Zealand’s approach to fiscal stimulus in the face of the GFC differed from most other OECD countries. Other countries’ stimulus packages were temporary responses to the crisis, whereas most of New Zealand’s fiscal stimulus was structural, making it more difficult to unwind. Figure 4.9 shows the fiscal deterioration is largely structural with the automatic fiscal stabilisers playing a relatively minor role.

New Zealand’s public debt levels are relatively low by OECD standards, but the size of the recent fall in the country’s structural fiscal balance is at the larger end of the OECD. Figure 4.10 incorporates the Half Year Update 2010 figures for New Zealand which show a general government structural fiscal deficit of 3.7% in 2011, making the change in the structural balance from 2007 to 2011 a substantial 6.4 percentage points.

While government debt is currently low by international standards, this will not remain the case on current forecasts. A structural deficit of around 5% of GDP in 2011 means there is little headroom before harmful debt dynamics start to set in, and a projected structural fiscal deficit of 6% in 2012 is exceeded only by Ireland, the United States, the United Kingdom, Japan and Poland.



**Figure 4.10:** New Zealand's change in structural balance is the large end of the OECD

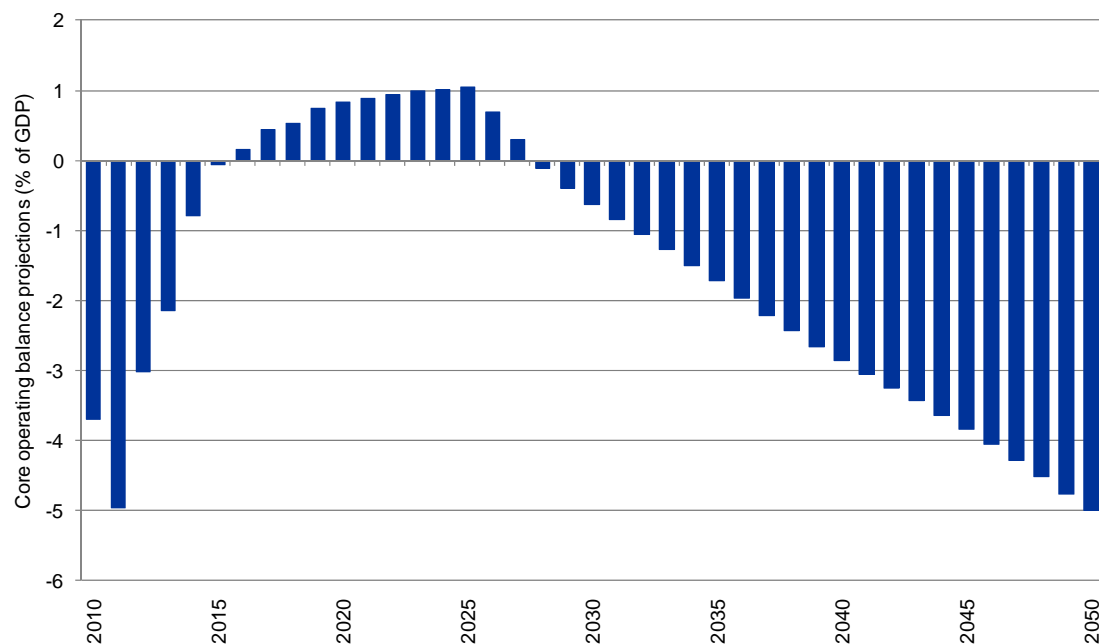


Source: OECD; The Treasury

### 4.3.3 Pressures on government saving position projected to grow

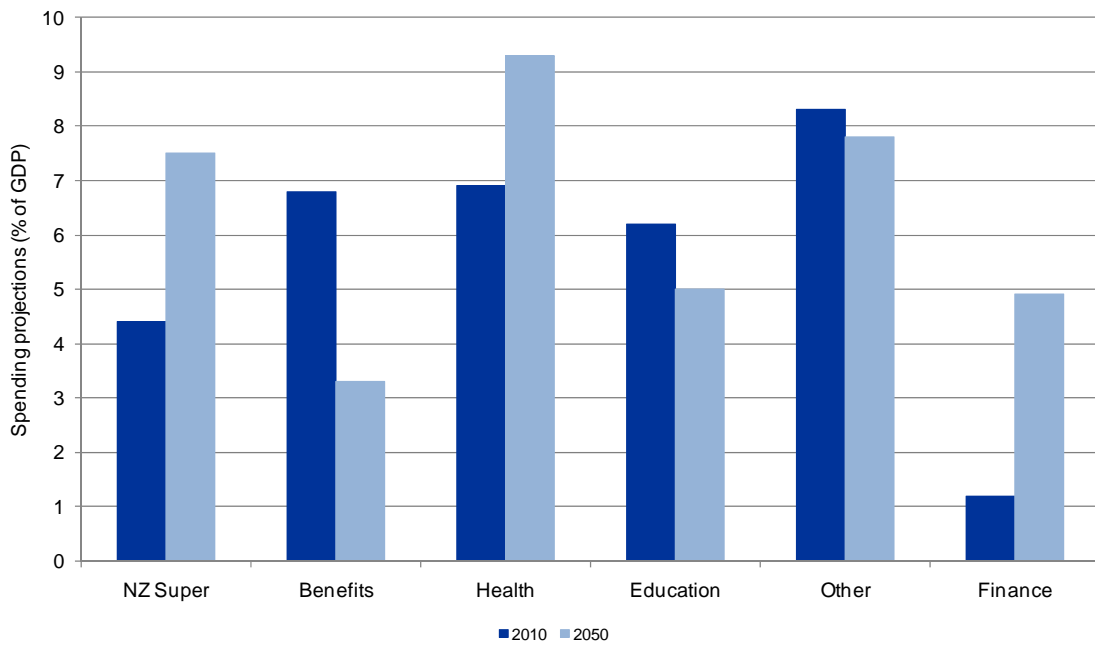
With the current fiscal strategy, the structural deficit is not projected to shift to surplus until 2015. Under the updated version of the Treasury's long-term fiscal statement (based on the Half-Year Economic and Fiscal Update 2010), the pressures of the ageing population, largely from spending on retirement income, health and long term care, send the projected balance back into deficit from the late-2020s onwards (Figures 4.11 and 4.12).

**Figure 4.11:** Core operating balance tips back into deficit in the late 2020s



Source: The Treasury (Historic trends projection based on Half-Year Economic and Fiscal Update 2010)

**Figure 4.12:** Spending on NZS and health rises, on benefits and education fall



Source: Treasury (Historic trends projection based on Half-Year Economic and Fiscal Update 2010)

Once the deficits build from the increasing costs of spending on ageing, debt mounts and financing costs feed back into rising spending. On this basis (including the baseline tax revenue track assumed in Treasury's modelling), government budgets are under growing stress, while the share of spending on the population aged 65 and older grows from 25% now to about 40% in 2050.

The conclusion is that without significant policy change to the relationships between spending and population, or tax rises (with negative flow-on effects on growth), deficits will steadily increase and debt mount further. This will damage growth prospects, and increase the country's external vulnerability.

# 5 Future scenarios

## 5.1 Future prospects under business-as-usual

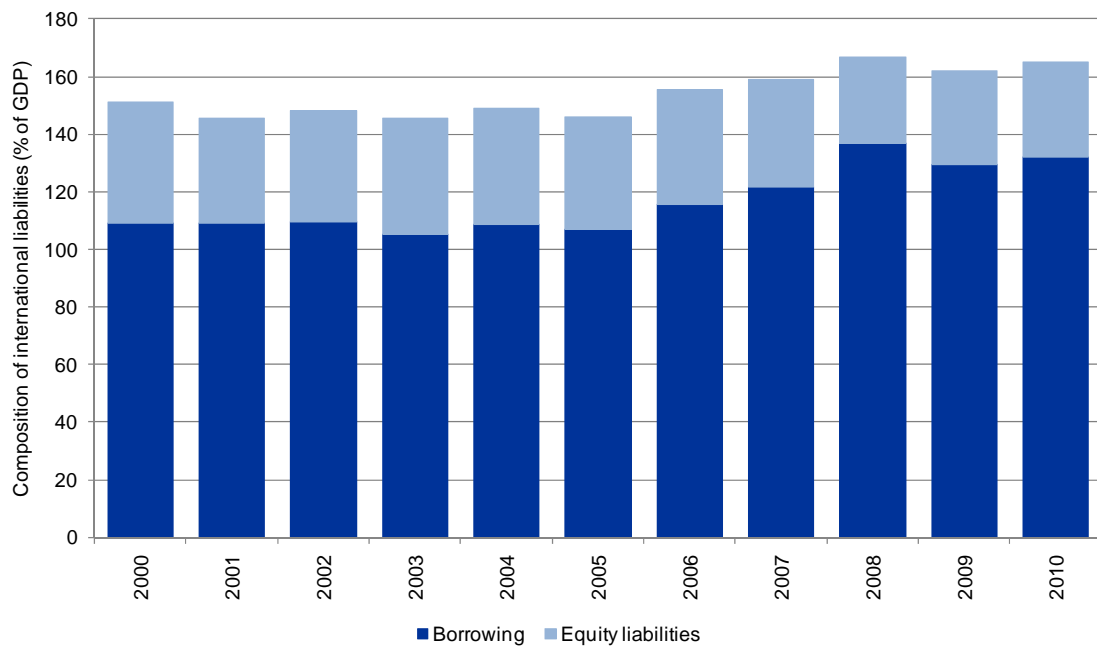
### 5.1.1 The income burden of external debt

New Zealand's decades of current account deficits (Figure 3.4) and external borrowing have left it with one of the highest NFL-to-GDP ratios in the OECD (Figure 5.1).

The consequence of financing investment using foreign funding over many years is that servicing the resulting liabilities forms a large part of the current account deficit. Since 2000, New Zealand has spent about 6% of GDP servicing its foreign obligations (Figure 3.4). This means that if New Zealand does not achieve trade surpluses that are sufficient to meet the cost of servicing foreign borrowing, the country's foreign liabilities will continue to increase. However, whether the ratio of NFL to GDP rises will depend on the strength of GDP growth.

Much of the recent improvement in the current account likely reflects the impact of the recession. With weaker growth prospects, investment has fallen and saving has increased as households and businesses have sought to pay off debts.

**Figure 5.1:** Composition of international liabilities



Source: Statistics New Zealand

Note: 2000 to 2009 are December years, while 2010 is a September year.

## 5.1.2 Implications of no policy change

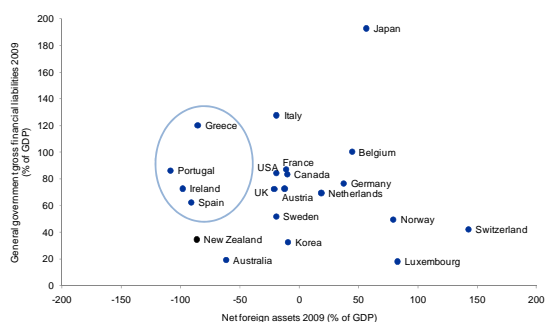
With economic recovery, NFL are predicted to deteriorate again. The IMF has estimated an increase to above 100% of GDP in the next five years, while Treasury's latest forecast is that it will increase to about 90% of GDP in the next five years.<sup>11</sup>

Either way, there is little confidence that most of the recent lift in saving is permanent – the latest data suggests only a very small part – which means that NFL will rise in relation to GDP with any significant economic recovery. Given the uncertainties involved and the serious implications of rising NFL, it would be wise to operate on this basis and take precautionary steps now.

## 5.1.3 Comparison with other countries

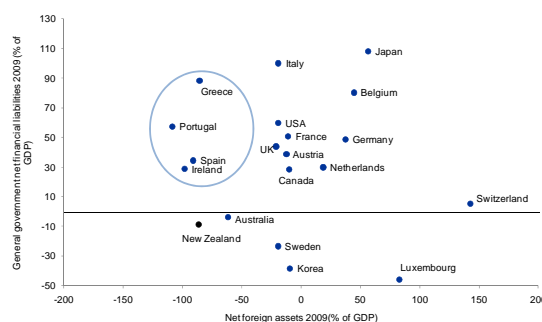
New Zealand's current position is near the limit for developed economies.<sup>12</sup> Other countries that have similarly large NFL (Portugal, Spain, Greece, Ireland) are showing many signs of serious difficulty. Figures 5.2 and 5.3 demonstrate one feature that differentiates New Zealand – its low government debt (both on a gross and net basis). Rating agencies and foreign investors have shown only moderate concern about New Zealand's external liabilities, in part because of the strong government position, but the continuing deterioration in the fiscal position sharply increases the risk. So too do external developments with the increasing concern about the US position and the heavily-indebted European economies, where borrowing needs are speculated to be beyond the capacity of markets.

**Figure 5.2:** General government gross financial liabilities (percent of nominal GDP) in 2009



Source: IMF, OECD, Statistics NZ

**Figure 5.3:** General government net financial liabilities (percent of nominal GDP) in 2009



Source: IMF, OECD, Statistics NZ

## 5.1.4 Reducing New Zealand's vulnerability

Further deterioration in New Zealand's NFL would be very risky and imprudent. Stabilising the position as a first step is important, and requires higher national savings to help fund more investment without

<sup>11</sup> See IMF (2010a) and Treasury (2010a).

<sup>12</sup> Reinhart and Rogoff (2010) find that the thresholds for total external debt are lower for emerging market economies. At a level of 60% to GDP, annual growth is about 2% lower. At much higher levels however, growth rates are reduced by almost half.

higher foreign borrowing. The Treasury (2010b) estimates that stabilising the NFL at 90% of GDP would require national saving to be about 2% of GDP higher than otherwise would be the case.<sup>13</sup>

This would not eliminate New Zealand's vulnerability but stop it getting worse. To reduce New Zealand's vulnerability would mean reducing NFL to, say, 70% of GDP over some 10 years. This would require an increase in national saving of about 4% of GDP (The Treasury 2010b).

Significantly, improving net export performance and increasing saving relative to investment are consistent goals: the resources released by a lower investment-saving gap eventually flow to generate higher exports or greater production of import substitutes, shifting the economic activity from non-tradable to tradable goods and services.

The IMF (2010a) estimates that stabilising the NFL at 90% of GDP would involve a depreciation of the real exchange rate by around 20%. A reduction to 75% of GDP over 15 years would involve a real exchange rate depreciation of 25%.

Reducing New Zealand's vulnerability requires building a stock of precautionary savings. This will firstly reduce the risk of an external crisis occurring and, secondly, provide financial resources to buffer the economy if an adverse shock did occur. In their latest Article 4 New Zealand consultation, the IMF recommends that faster fiscal consolidation than is presently forecast is crucial to ensuring the country has sufficient fiscal capacity to respond effectively to future shocks.

Fiscal policy can also play a key role in shifting the economy towards tradables. The IMF (2010b) suggests that faster fiscal consolidation in New Zealand would lead to a depreciation of the currency, a lower sovereign risk premium and lower current account deficit. It predicts that a permanent increase of 1% of GDP in government saving will lead to an improvement in the current account by between 0.4% and 0.6% of GDP.

## 5.2 Modelling national saving scenarios

The SWG commissioned the New Zealand Institute of Economic Research (NZIER) to investigate the effects of a significant increase in New Zealand's national saving rate. It was interested in seeing the effects of a simulated saving "shock" in a realistic dynamic general-equilibrium model of the New Zealand economy. The model traces the impacts over time on variables such as GDP, NFL, the exchange rate, and national income. Given that a significant reduction in NFL would also be likely to reduce the cost of capital to New Zealand businesses, the NZIER also looked at the additional effects of such a reduction on investment, the capital stock and output.

The modelling showed changes in the key variables relative to a *baseline*. The baseline is the counterfactual of what would have happened (according to NZIER's *Quarterly Predictions* macro-economic forecasts) if the shocks to national saving and the cost of capital did not occur. For example, the model's baseline, with no increase in New Zealanders' propensity to save, would see the level of NFL increasing from its current level of around 85% of GDP to around 115% by 2025.

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<sup>13</sup> These estimates are based on nominal GDP growth of 5% in nominal terms. The Treasury also emphasises that a higher rate of nominal GDP growth would imply that trade surpluses and national saving would need to rise by smaller increments.

## 5.2.1 Results of an increase in national saving

The following questions were asked of the model: what increase in the national propensity to save would be required (i) to stabilise NFL at around their current level (90% of GDP) or (ii) to reduce them to 60% of GDP (similar to Australia's current level) within around 10 years?

According to the model, the first goal could be achieved by increasing the national saving rate by 3 percentage points of gross national disposable income (GNDI) over the three years from 2010 to 2012 and keeping it steady thereafter. Reducing NFL to 60% of GDP by 2020 would be an altogether more ambitious target – needing approximately a 3-percentage-point reduction in the NFL-to-GDP ratio each year between 2010 and 2020. In turn, this would require a reduction in consumption to GNDI of 8 percentage points (i.e., from its baseline level of 86% to 78%). Once the 60% NFL-to-GDP target is reached, the consumption ratio is able to increase but only back to 82% in order to maintain NFL at 60% of GDP thereafter.

## 5.2.2 Results of increased national saving plus a lower cost of capital

Increased saving will reduce domestic demand pressures and, over time, the risk premium that foreign lenders apply to their loans to New Zealand. Both effects will help reduce the cost of capital (interest rates and the cost of equity) that New Zealand businesses have to pay to finance investment in new plant and equipment, buildings, research and development and business expansion more generally. To gain insight into this effect, a second shock – a reduced cost of capital – was applied to the model. Specifically, the NZIER modellers used IMF estimates and other evidence as a basis for assuming that a fall in New Zealand's NFL-to-GDP ratio of 25 percentage points relative to baseline will result in a fall in the cost of capital of 10% below its baseline.

Three scenarios were tested using different combinations of the two shocks, as described in Table 3 below:

**Table 3: Summary of scenarios**

| Scenario  | Saving rate                                   | Cost of capital  |
|---|---|--|
| 1. Stabilisation of NFL   | Adjust to rapidly stabilise NFL at 90% of GDP | Decrease by 10% relative to baseline over course of decade |
| 2. Reduction of NFL to Australian levels                            | Adjust to decrease NFL to 60% of GDP by 2020  | Decrease by 22% over course of decade                      |
| 3. Sensitivity of results to smaller changes in the cost of capital | Adjust to decrease NFL to 60% of GDP by 2020  | Either no change or decrease by 11%                        |

Source: NZIER

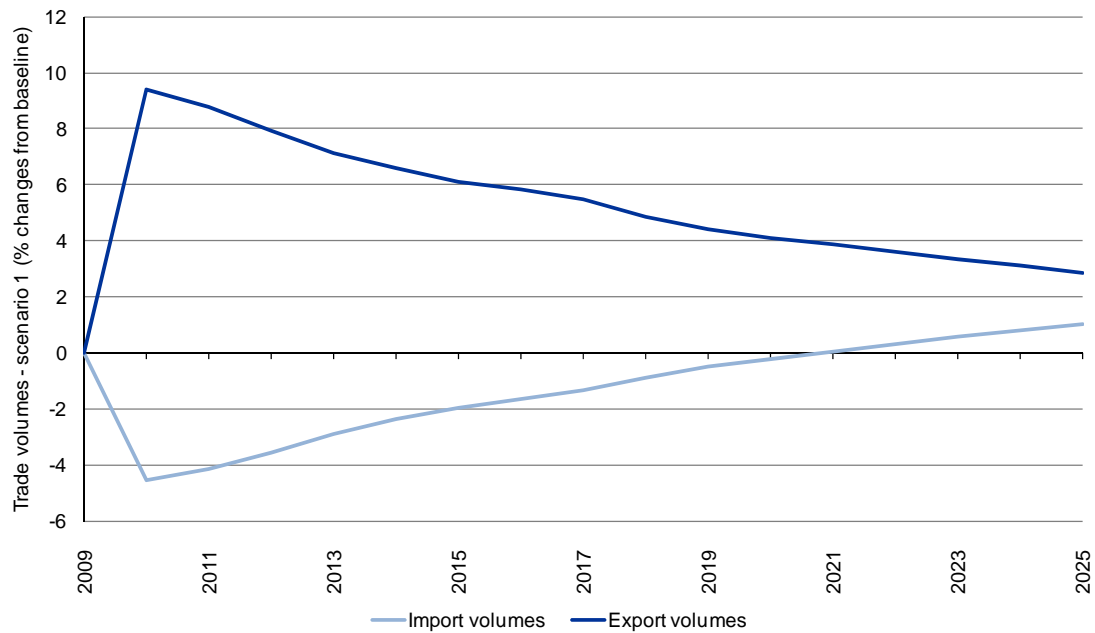
Scenario 2 comprises the largest 'shocks' and therefore has the largest effects. The other scenarios demonstrate similar effects in milder form. The key conclusions that the SWG draws from NZIER's modelling are:

- *Debt-servicing costs fall.* Reducing the NFL-to-GDP ratio to 60% in itself yields a significant financial gain to New Zealanders. This comes from savings in servicing foreign liabilities – less interest and/or profits paid to foreigners. It lifts New Zealand's real income and living standards over time. For example, under scenario 2, the offshore payments that New Zealand makes reduce by \$1.5 billion per year by 2025 compared to baseline as the debt to be serviced drops, and national income correspondingly rises.

- *Exchange rate falls, exports rise.* Higher saving leads to a lower real exchange rate over the medium term, with higher exports and lower imports. The current account improves. These happen because New Zealanders borrow less from abroad (so lower demand for NZ dollars) and exports and import substitution expand to use available resources and make up for the fall in consumption.

Figure 5.4 illustrates the changes in volumes of exports and imports from the baseline under scenario 1. Volumes revert towards the baseline after an initial surge because the initial increases in saving partly reverse and, as the foreign liabilities decline, fewer exports are needed to service them.

**Figure 5.4: Trade volumes – scenario 1 (percentage changes from baseline)**

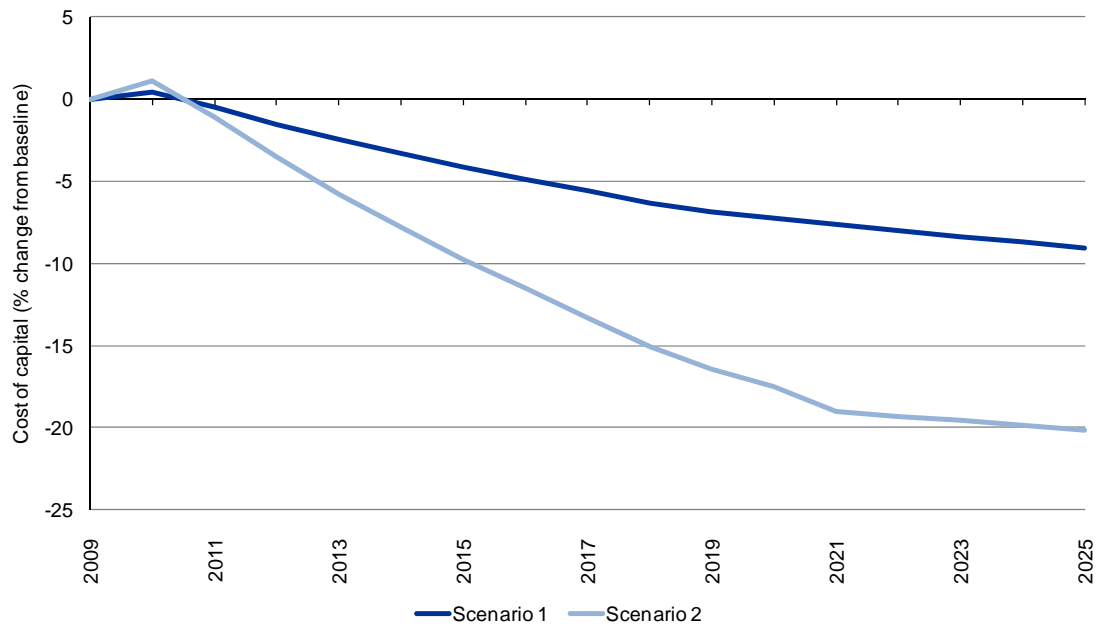


Source: NZIER

- *Lower cost of capital boosts investment.* Scenario 1 has NFL to GDP falling 25 percentage points relative to baseline by 2025<sup>14</sup> and under scenario 2 the fall is 55 percentage points. These falls generate falls in the cost of capital of 10% and 22% respectively and the model estimates the effects of these on investment and capital stock relative to baseline.

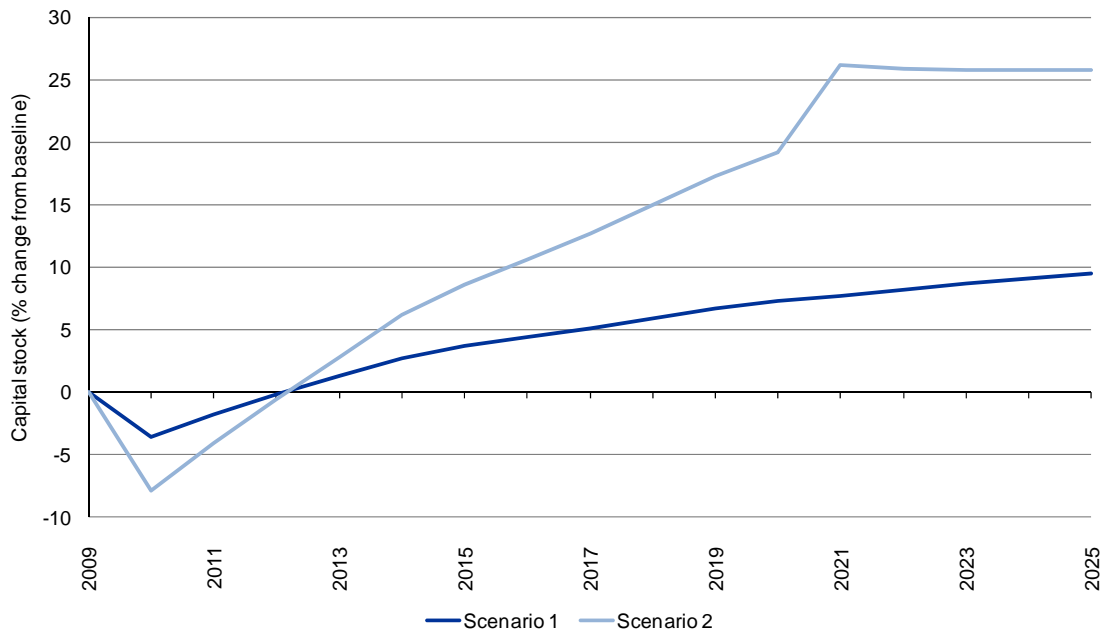
<sup>14</sup> Under baseline projections, NFL rise to 115% of GDP by 2025, so stabilising the ratio at 90% is a 25 percentage point fall relative to baseline.

**Figure 5.5:** Cost of capital – scenario 1 vs scenario 2



Source: NZIER

**Figure 5.6:** Capital stock – scenario 1 vs scenario 2

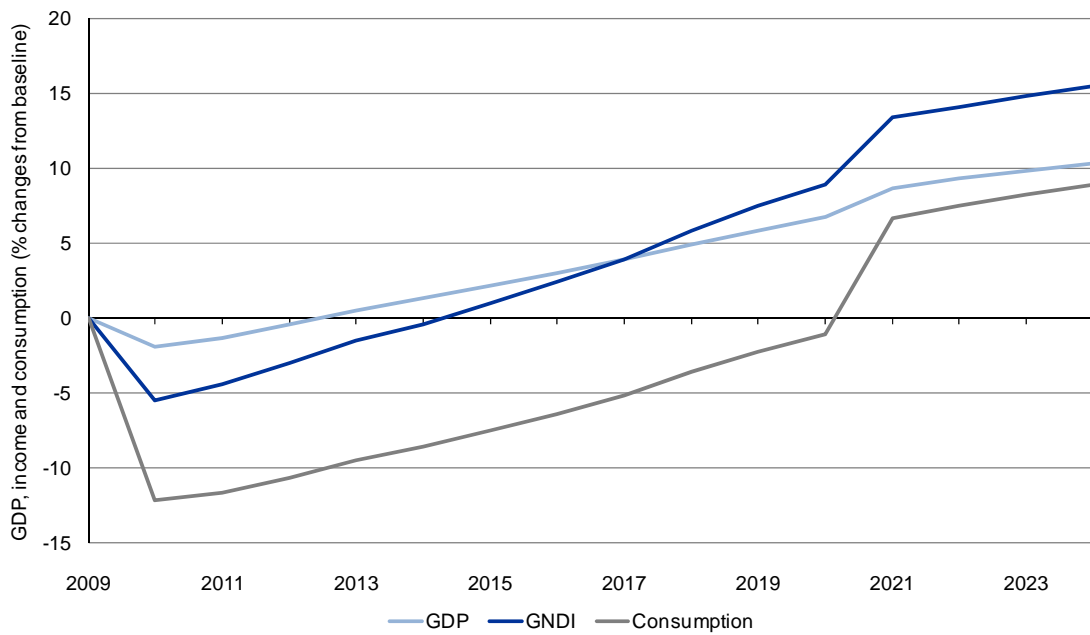


Source: NZIER

- *GDP and GNDI initially drop but then grow strongly.* The initial falls come from the short-term output and employment losses in the face of the fall in consumption. GDP and income growth in the medium term come from a higher capital stock while GNDI benefits additionally from the reduced cost of debt servicing. Under scenario 2, consumption and GDP increase by 8% -10% compared to baseline and GNDI by around 15% by 2025. Figure 5.7 illustrates these changes from baseline.



**Figure 5.7: GDP, income and consumption – scenario 2**

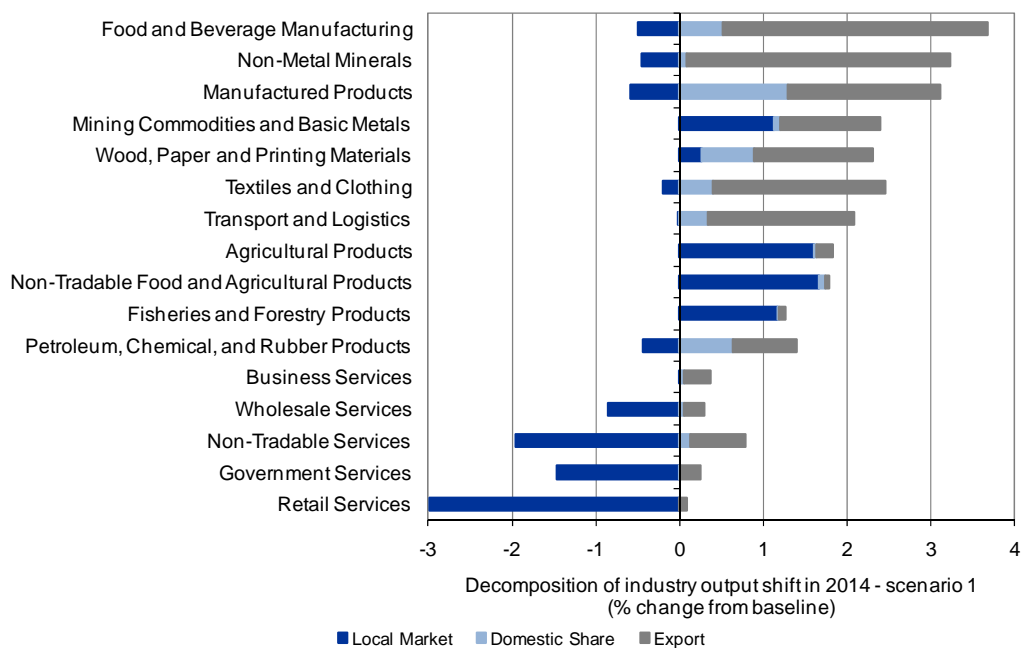


Source: NZIER

- **Rebalancing – tradable industries expand, non-tradable ones contract.** The effects of lower consumption, a fall in the exchange rate, higher exports and lower imports show up at the industry level – tradable industries expand, non-tradable ones contract. Of course resources (labour and capital) need to move to support these changes and this takes time and is not costless.

Figure 5.8 shows a 2014 snapshot of shifts in the outputs of 16 industries relative to baseline in scenario 1. The shifts in scenario 2 are larger. The shifts are decomposed into changes arising from local demand, imports (domestic share of importables) and exports.

**Figure 5.8: Decomposition of industry output shift in 2014 – scenario 1**



Source: NZIER

### *Assessment of the model results*

Models are not reality and indeed deliberately abstract from reality. They are only as good as the quality of the relationships and empirics built into them. We wanted to test our intuition and simple macro analysis and to outline the likely economic outcomes if New Zealand manages significantly to improve its national saving. The NZIER's dynamic computable general equilibrium model of the New Zealand economy offered a good way to do this.

The results from the modelling do indeed confirm intuition and economic analysis. They strongly suggest that a significant step up in national saving would cut NFL as a percentage of GDP, and lower the exchange rate (at least for a period), thus boosting exports and reducing imports. Under the reasonable view of an NFL cut leading to falls in the cost of capital, investment, output and incomes all rise over time, and national income is further boosted by the reduced cost of servicing foreign liabilities.

These are all desirable outcomes for the New Zealand economy – even if the sizes of the changes predicted by the model are subject to considerable uncertainty. The modelling results also confirm the merits of the much-talked-about rebalancing of the economy – resulting in significant shifts from consumption and debt towards exporting and investment following a significant increase in saving.

## 6 Government saving

### 6.1 Fiscal policy

Operating deficits are still forecast to run for a further five years, increasing net debt. It is important to return to fiscal surplus earlier than projected in order to:

- Increase the resilience of the economy given the high likelihood of further adverse shocks.
- Increase national saving, allowing more investment to be funded (and owned) by New Zealanders.
- Help lower interest rates and increase investment.
- Help lower the exchange rate and shift resources to the tradable sector.
- Position the State Sector to deal with demographic pressure from an ageing population.
- Improve the alignment of government spending with economic and social priorities.

It is important to examine government spending and eliminate programmes that are poorly targeted and not adding sufficient value. There is scope to tighten operating and capital allowances for the next five years by a combination of bottom up (target specific projects and programmes) and top down (general change targets), with a strong shift to a continuous improvement.

### 6.2 A high-performing public sector

#### 6.1.1 Government savings and productivity

The Treasury's long term projections of the Government's capacity to supply goods and services underline the stark choices facing New Zealand and the vital role of productivity:

"...we simply can't keep doing what we have done without significantly increasing taxes or debt." (The Treasury 2009)

The government's fiscal position deteriorated sharply from 2006, with substantial spending and tax decisions contributing to shift the Crown's operating balance from surplus to deficit, from plus \$9.5 billion in 2006 to a projected minus \$9.1 billion in the current year, and from saving to dissaving. At present, the government is borrowing some \$300 million per week of longer-term debt (or \$13.5 billion a year) – around 7% of GDP.<sup>15</sup>

The 2009 long-term fiscal projections were updated last year to reflect changes in the 2010 Budget. These produce lower debt-to-GDP levels in 2050 than previously forecast, but population ageing and other costs pressures still produce rising debt levels and an unsustainable fiscal long-term position. As new information comes in, the forecasts will continue to move about, with the effect that the 2050 debt-to-GDP levels forecast in Budget 2010 will be attained a few years earlier or later.

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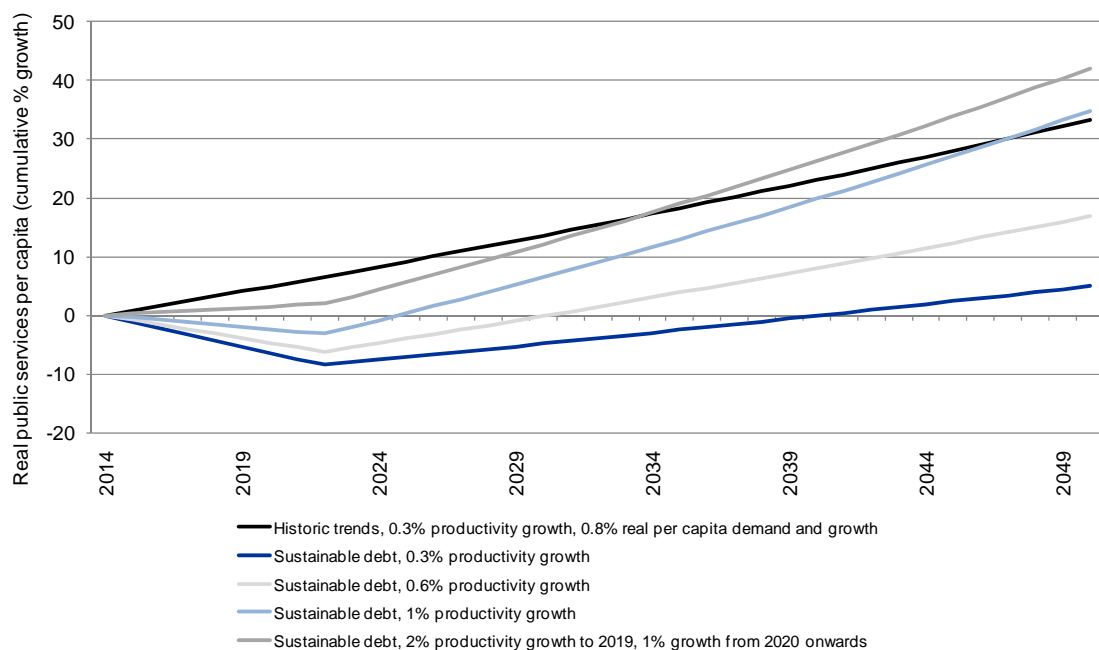
<sup>15</sup> This figure is gross borrowing and includes funding to re-finance existing debt and to pre-fund future planned spending. An annual deficit of \$9.1 billion equates to an average of \$175 million a week.

In the updated 2010 analysis, the base case projection, with government debt held to a sustainable level and public sector productivity growing at 0.3% annually, shows the supply of public services per capita in real terms declining in every year from 2013 to 2022, to about 8.5% below the current level, then slowly recovering to the current level in 2046.

However, if productivity growth is doubled to 0.6% per annum then the period of contraction of per capita services reduces from 33 years to 15 years; and by 2050 the annual level of services is 17% above the current level, compared with the base case's 5%.

Further testing of productivity options showed that if public sector productivity increased by 2% per year for five years and 1% per year thereafter, there would be no period of contraction, and growth in the supply of public services would be faster than the historic trend growth rate (Figure 6.1).

**Figure 6.1:** Real public services per capita under different productivity scenarios



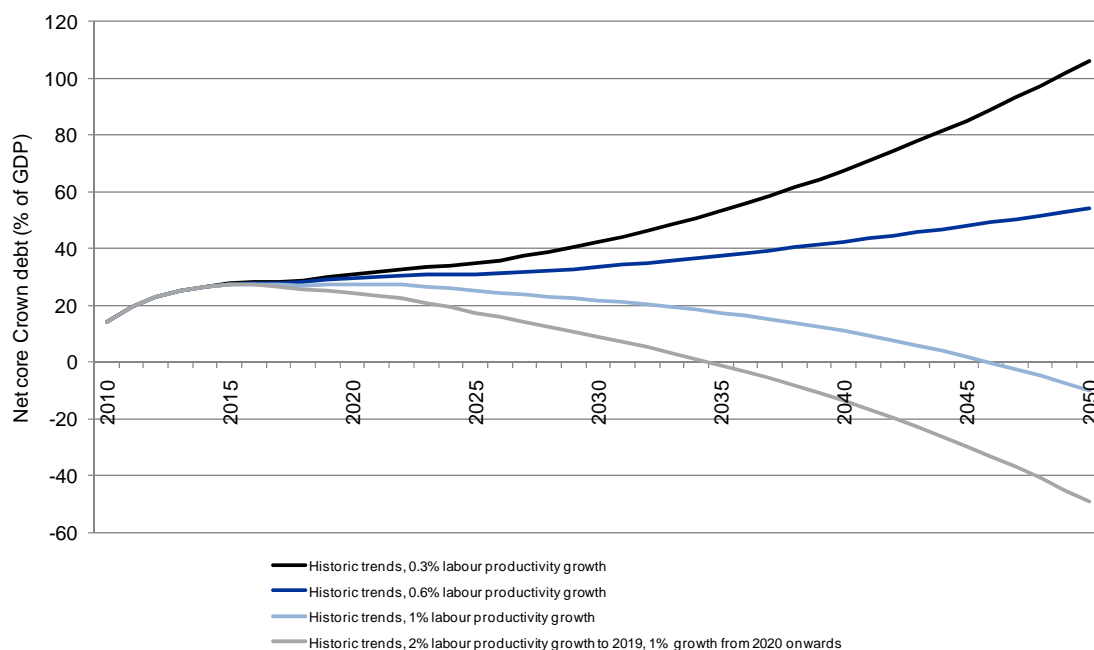
Source: *The Treasury*

Alternatively, the same volume of public services as in the base case could be delivered and government spending reduced by \$6 billion in 2020 and \$25 billion in 2030. This would reduce net government debt by 33 percentage points of GDP in 2030.

Allowing public services to grow at the historic trend growth rate, with productivity growth at 0.3% a year and debt unconstrained, results in net core Crown debt at over 100% of GDP in 2050. And with productivity growth at 0.6% a year, net core Crown debt still increases from under 20% of GDP now to almost 60% in 2050 (Figure 6.2).

These debt profiles are clearly not viable for New Zealand and the protracted contraction in public services isn't really either. This is why raising public sector productivity is important, both in terms of its implications for the community, and in terms of options for increasing national saving.

**Figure 6.2:** Net core crown debt with public services growth at historic trend (% of GDP)



Source: *The Treasury*

It is important to emphasize that “productivity” and “improvement” are not simply camouflage labels for cost-cutting. There will be some, but the essence of the changes needed is more effective leadership, top-down and bottom-up initiatives to harness the thinking and ideas within an organization, supplemented by better practice, systems and technology from elsewhere, to produce more value, more efficiently. This is simply “business as usual” good practice in the private sector, and a common by-product when done well is a more empowered and enthused work force.

**Box 3: Measuring government sector performance improvement**

Interest around the world in measuring the performance of government-provided services has increased sharply given the GFC; constraints on government spending and debt; governments’ large share of total expenditure in the economy; and the serious consequences of low productivity, poor targeting and waste in the public sector.

Productivity growth means growth in the volume of government services relative to the volume of resources used to produce those services, but it is only one measure of performance. Other performance measures include value-for-money and effectiveness.

Governments have commissioned reviews to find ways to measure outputs and outcomes of public services. These include the Atkinson review in the UK (Atkinson 2005), and the Stiglitz report in France (Stiglitz, Sen *et al* 2009). The OECD has been working on a manual on the measurement of non-market health care and education output. Services are usually much more difficult to quantify than goods and to incorporate measures of quality change. In addition there are usually no market prices for government services and this complicates the task of calculating relative values.

Last year, Statistics NZ released a feasibility study on measuring the productivity of public health services and education (Statistics New Zealand 2010b). In many countries, these are two services that incur the highest government expenditure. The study found that it would be possible to estimate productivity growth in these two sectors to near world-best practice and included a series of recommendations that would bring it up to the frontier.

It may be possible to apply these methods to other government services, as many of the issues and potential solutions apply more generally – however, Statistics NZ has not extended its research to data availability or suitability in these areas. The UK has studied the possibility of measuring the productivity of police, children’s social care, social security, the criminal justice system, defence and adult social care.

### 6.1.2 Public sector performance

At 0.3% a year, public sector productivity growth is about a fifth of economy-wide labour productivity growth. While the nature of public sector services is often used to explain the difference, there are other major relevant factors. Many (but not all) public sector organisations:

- Have no culture of, or commitment to, productivity and continuous improvement.
- Have had little encouragement, incentive or requirement to develop it. It has not typically been a government or ministerial priority, nor one for the Public Service leadership.
- Appear to lack the leadership, capability and experience to implement significant productivity and improvement programmes.
- Struggle to use consultants efficiently and effectively.

A major, often identified but not remedied flaw in the state-sector reforms of the 1980s is the high level of delegation and authority given to chief executives, without matching performance obligations or consequences for poor performance. Several initiatives have added little or no value – Managing for Outcomes, for example, was largely ineffective and there are no consistent measures or key performance indicators of improvement and productivity. The dominant approach is adding more process, which almost always adds complexity, cost, delay and frustration – but not value!

What is the basis for these views? A few of many are:

- The State Sector Standards Board’s (2002) reports identified a range of major issues in the Public Service and wider State Sector, none of which have been effectively addressed – e.g., quality of leadership, inadequate training, output that is not outcome-focussed, weak whole-of-government focus.
- The 2006 review of the Ministry of Health was a comprehensive indictment of the way it was led and operated – in silos, fragmented, process-oriented, risk averse, no strategic plan, etc (Gaudin and Wong 2006).
- The Formative Evaluation Team on Managing for Outcomes commented that: there was weak organisational capability to implement; outcome and performance measures were virtually non-existent; there was little evidence of risk management; and departments asserted linkages with others but there was little evidence of these. And the SSC commented that “collaboration occurs despite the system, not because of it” (Blackmore, Stevenson *et al* 2003).
- The Performance Improvement Framework (PIF) review of the Department of Conservation found that a lack of clear strategic leadership from the Executive Leadership Team was the key risk.

- The PIF review of the Ministry of Foreign Affairs and Trade concluded that talented staff perform well despite the system; change-management experience and management capacity is limited; there is little understanding of, or focus on, cost efficiency or value for money, and therefore an inability to rate the efficiency of most core business areas; and there is a need for better alignment of the organisation to its mission and purpose (State Services Commission, The Treasury *et al* 2010).
- McDonald (2007) describes various issues affecting performance and productivity.
- In late 2009, the Secretary of the Treasury, John Whitehead, challenged the Public Sector to move out of its comfort zone, increase productivity and do things more efficiently. In August, 2010, he stressed the need for improvement: the Public Sector still doesn't tell a clear story on where money is spent and the value gained; there is a need for new thinking converted into action; the lag between identifying a problems and taking action is unacceptably slow; and if the Public Sector doesn't change it will end up in a position where it cannot fulfil its duties<sup>16</sup>.
- Ruth Herbert's VUW MPP thesis (2008 Holmes prize) on the effectiveness of family violence policy stated that multi-agency collaboration was needed for 75% of actions, but was applied only in a third of instances.
- The Crown Ownership Monitoring Unit's Report (2010) on commercial (priority) activity in the State Sector is only a snapshot, that should therefore be used with care. But the State Owned Enterprises they examined are required to operate as successful businesses and control almost \$20 billion in value. Over the period 2006 – 2010: revenue increased 4.7% per year, earnings declined and net profit after tax fell 48% (and the average dividend yield was 2% compared with the NZX average of 4.5%).

Importantly, the public sector in general has not been particularly successful in developing the systems, processes and culture which enable successful improvement and productivity initiatives. This must now change and quickly since:

- Success will mean major benefits for the community and the economy, including an early lift in National Savings and a much greater Public Sector capability and capacity to deliver services in the years ahead.
- Without higher performance the outlook is grim. It is not now a “nice to have” option – it is vital.
- The Minister of Finance's guidance to State Sector Chief Executives over the last 18 months has started, but no more, to establish a platform for improvement – and there is too much focus on process rather than outcomes.

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<sup>16</sup> Whitehead (2009, 2010).

Based on its global work, McKinsey suggests a potential for a 15% productivity improvement in government services over the next 10 years across various countries – by using new methods and learning from better practice in other countries and the private sector. There are also encouraging examples of what can be achieved in New Zealand (Arnum, Dohrmann *et al* 2009).

In mid-2010, in order to better understand the future role of government “in a more constrained fiscal and economic environment”, the Treasury took stock of projects which had the objective of improving state sector performance.

The project list is encouraging. It includes:

- Better Alignment of Expenditure Priorities
- Review of fiscal management
- Faster fiscal consolidation
- Investment Statement (better managing the Crown’s balance sheet and risks)
- Capital Asset Management
- Performance Improvement Framework
- Better Administrative and Support Services
- Review of Expenditure on Policy Advice
- CE’s Group on Government Business Reform and Cross Agency Initiatives
- Central Agencies Integrated Corporate Services Project
- Role, size, and shape of government.

The biggest challenge will be to get the necessary leadership and orientation within the public sector for effective action. The very real risk is a slow and protracted process, bogged down in detail, weakened by compromise and with little to show for itself after several years of effort. Whitehead’s comments are relevant:

“A more focused, efficient and productive public service is a key element in the government’s plan for growing the economy. . . . This isn’t just about lifting our game, it’s about challenging it. We cannot deal with a new environment – a completely new and challenging economic environment and the demands of 21<sup>st</sup> century consumers – with old tools, approaches and mindsets. . . . It’s about creating real value in the public sector and focusing on the right things – the things that make a difference for people – and finding new and better ways of delivering services.”

It is likely that the most effective approach in the short term (and short-term results are important) will be along the lines of setting a high-level target for each organization – say a minimum of 2% per year improvement for five years, with a brief, clearly defined measurement basis and significant penalties for failure. Services will need to be maintained unless they can be shown to be a waste of resources or are replaced by a better option.



The incentives for achievement (or penalties, for failing to achieve) need to reflect the seriousness of the situation and importance of success. They should be in the form of salary reductions for staff on \$100,000 and higher – starting at 5% and ranging up to 30% for chief executives, which is analogous to the “at risk” component of the remuneration of a private sector chief/senior executive.

#### *Government and national saving*

Government sector saving is an important component of national saving, particularly as government has more direct policy control over it and the ability to determine outcomes over a short time period.

With significant productivity gains, the government has the option of either increasing government services or increasing government saving and thereby national saving.

Given the merit of a quick and significant increase in national saving to mitigate New Zealand's vulnerability, it would be logical to maximise government saving in the short term (as the area with the greatest opportunity for quick results) with a growing contribution from private saving complementing it in the medium term.

#### **6.1.3 The Crown's balance sheet**

Government saving is held in the Crown balance sheet. This includes all of the social, commercial and financial assets owned by the Crown, along with the liabilities owed by the Crown. It is a large portfolio with over \$220 billion of total assets and \$95 billion of net worth (assets minus liabilities). Furthermore, over the past 15 years, the social, commercial and financial portfolios have all grown strongly on the back of operating surpluses, commercial retained earnings and financial investment returns.

The *2010 Investment Statement of the Government of New Zealand*, published recently, gives a good overview of the state of the Crown's balance sheet. It draws several conclusions that the SWG endorses. In particular, the large size of the portfolio means that effective management matters. Current management could be improved in several areas and the Crown's capital investment could be better aligned with the Government's objectives and priorities. This will improve the quality of government savings and, hence, national savings (New Zealand Government 2010).

The SWG also endorses the Government's investment intentions, summarised in the five themes of:

- Rebuilding resilience
- Reducing risk exposures
- Sharpening incentives to use existing capital well
- Introducing private sector capital and disciplines where appropriate
- Prioritising capital to its highest value use.

#### *The role of government asset sales in the saving debate*

Many people believe that the Government should divest itself of those assets it holds that would be run more efficiently by the private sector. There is a rationale for doing this from an economy-wide perspective with potential dynamic effects having a significant influence over time on both profitability of the assets and on productivity.

From a national debt angle, regardless of whether the assets are sold to New Zealanders or offshore investors, the sale proceeds would give the government the opportunity to pay off some of its debt. This would be an important signal to markets even if New Zealand's total liabilities are not reduced in the short term.

It may also be true – as many have argued - that domestic sales via share floats would help develop capital markets by giving savers a greater quantity and wider range of assets to invest in.

# 7 Household and business saving

## 7.1 Introduction

The focus of the first half of this report has been on macro-economic issues including the fiscal position of government and the level of government saving. In this section of the report, we look at government policies that can have a direct or indirect influence in increasing saving in the private sector.

This section examines some tax policies, and these will undoubtedly have some impact on the fiscal position and government saving. However, the major thrust of these policies is to influence private sector saving, and they have been examined and are presented here in this light. This section also looks at the role of the NZ Superannuation Fund, which also has consequences for the fiscal position and government. However, the role of the Fund is also very much tied to the issue of retirement saving and hence to the saving position of the household sector. For this reason, it is covered in this section of the report.

The emphasis in this section is on policies that might affect the level of household saving, although there are also some comments on business saving. The over-riding issue, however, is not whether policies will increase, say, household saving, but whether this, in turn, will flow through to produce a rise in national saving, and/or improve the quality of that saving. Unfortunately, it is not easy to identify and quantify the final impacts of policy changes on national saving. There is scope for more work to pin down how large these impacts would be, and on the optimum timing of any policy changes.

Tax issues are dealt with first. The first part of the tax subsection looks at policies that could be expected to have an impact on the level of household saving. It includes a look at incentives related to income tax, and whether these can have a material impact on national saving. It also looks at the effects of a shift from taxing income to taxing expenditure, and whether income tax produces an inherent over-taxation of savings that might be reduced by adjusting tax rates on at least some types of income. The second part of the subsection looks at policies that might affect the type of assets held by investors and the debt/equity mix of investors. This includes a look at indexation (taxing income on a real basis, rather than a nominal basis), New Zealand's thin capitalisation rules, and other issues.

The second subsection focuses on long-term savings mechanisms. Inevitably, the issue of saving for retirement features in this section. However, the emphasis here is not so much on looking at whether saving for retirement of different cohorts is adequate at the individual or household level (since this is not a focus for the SWG), but in assessing whether mechanisms to provide retirement income might also be used to lift household and national saving. In effect, we look at whether a second objective – lifting national saving – can be added to the primary objective of providing adequate retirement incomes. It seems likely that any success with respect to this second objective could also have positive consequences for the first objective. That is, it may result in retirement incomes being provided on a more sustainable basis.<sup>17</sup>

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<sup>17</sup> In keeping with the Terms of Reference for the SWG, this report does not make any recommendations regarding the level of NZ Superannuation; the focus here is on funding.

The second subsection begins with a look at the difference between a pay-as-you-go pension scheme (PAYGO) and a save-as-you-go pension scheme (SAYGO). Under PAYGO, pensions are paid out of current taxes. NZ Superannuation is an example of a PAYGO scheme. Under SAYGO, taxes (or private contributions) are collected in advance and accumulated into a fund, and pensions are paid out of this fund. During the transition from a PAYGO to a SAYGO scheme, the fund will rise, resulting in the country having a higher level of accumulated wealth. The impact on national saving (the flow measure) should also be positive over the transition period. Using retirement saving to increase national saving would involve increasing the emphasis on a SAYGO approach in preference to a PAYGO approach. The use of SAYGO is discussed with respect to NZ Superannuation, via the NZ Superannuation Fund, and with respect to household or private saving, via KiwiSaver.

The subsection goes on to take a detailed look at KiwiSaver. It looks at the structure of the scheme, including whether membership should be compulsory and what the level of contributions should be. It then looks at ways to improve the performance of KiwiSaver for investors: the level of fees, its operational structure, and whether it is capable of delivering more to members in terms of returns and risk profile. Both of these issues – structure and performance – are important, since they both affect the level of national saving and the level of national wealth.

The subsection then discusses the potential role of annuities in reducing the risk for retirees associated with the receipt of lump-sum retirement payments.

The subsection concludes with a look at other long-term saving issues, including non-retirement, locked-in long-term savings, and inflation-adjusted investments.

The final two subsections of the private sector saving section cover business saving and financial education.

At this stage, it is worth highlighting that the recommendations and comments that follow have been assembled in light of the SWG's Terms of Reference (see Part 3), which excluded looking at changing the parameters of NZ Superannuation, capital gains tax, other specific forms of benefit/income support, and the merits of individual spending areas. The recommendations have in effect been formed on an assumption of no changes in these areas.

## 7.2 Tax policy

The SWG's Terms of Reference required consideration of the impact of the tax system on the level and composition of national saving and investment decisions, and of options for improvement (including taxing income from labour and capital at different rates, and taxing income on a partly or fully indexed basis).

Our Terms of Reference also noted that the Government “has recently said that it will not introduce broad and widespread taxation of capital gains or land.” Accordingly, the SWG undertook its consideration of tax assuming that this position will remain unchanged.

The SWG acknowledges earlier reviews of the tax system (most recently by the Tax Working Group (TWG)) and the policy principles underpinning that work. Taking that legacy as its starting point, the SWG considered these specific savings-related questions:

- What is the likely influence of the structure of the tax system (i.e., broad-based income tax and GST) on the decision to consume rather than save, and what could thus be changed to increase the level of savings?
- What is the likely influence of specific features of those taxes (particularly income tax) on the decision of what to save/invest in, and what could be changed to improve the quality of saving/investment overall?

### 7.2.1 Taxes and saving: a brief overview

Income can be taxed when it is earned (income taxes) and when it is spent (expenditure taxes). Taxes are often classified according to whether income is taxed (T), taxed at a concessional rate (t) or exempt (E) at three different stages:

- 1 When income is first earned.
- 2 When investment returns are earned if income is saved before it is spent.
- 3 When income is spent.

Income taxes are TTE, because they apply to (1) labour income when it is earned (the first T) and (2) any capital income when the earnings are invested (the second T) and (3) because there is no further (income) tax when the earnings are spent (the third E).

Most countries use three types of taxes:

- 1 General income taxes, applicable to labour and certain forms of capital income (TTE).
- 2 Payroll and social security taxes, applicable only to labour income (TEE).
- 3 Expenditure taxes (EET).

In addition, most countries offer special retirement saving vehicles (such as 401(k) accounts in the US) that are taxed on an EET basis. Money placed in these vehicles is not taxed when first earned, is not taxed as it compounds, but is taxed, normally at income tax rates, when it is withdrawn from the fund.

A major difference between income and expenditure taxes is that income from saving (capital income) is allowed to compound through time before it is taxed under an expenditure tax, whereas it is taxed as it compounds under an income tax. For this reason, the after-tax return to savings is higher under expenditure taxes than income taxes. Moreover, in comparison with an income tax where certain forms of capital income are not taxed (e.g., capital gains, the returns to owner-occupied housing) or are taxed at different rates (income from offshore investments, real interest income), expenditure taxes are applied equally to all forms of capital income and thus lower the incentive to invest in one form of capital rather than another because of differential tax treatments.

### 7.2.2 Current structure of the New Zealand tax system

*Income tax:* Relatively broad-based, taxes nominal (not real) income, TTE model. In a saving/investment context, important exclusions from base coverage are income from: investment by charities, most capital gains (apart from non-equity financial instruments). Income taxes are used both as a delivery mechanism for Working for Families and collection mechanism for Student Loans, etc.

**GST:** The most broad-based, global exemplar.

**Past reforms:** The approach, in the past, has consistently acknowledged that taxes inherently distort decision-making, but there are advantages in making rate structures simple and bases broad (at least as much as possible without a comprehensive capital gains tax). The focus has been on shifting towards GST and reducing income tax rates to minimise potential distortions.

**Tax structure from a savings perspective:** Looking at each structural component in isolation:

- Income tax influences when people spend as it taxes income from savings while it is being earned rather than as it is spent. The effective tax rate on real income from savings over time can be very high and there is a consensus that this unduly favours spending immediately rather than later.
- Most taxes (including GST and taxes on labour) are likely to distort investment decisions and involve some economic cost. Further, high taxes on savings accumulating over long periods of time can be particularly distorting. For this reason, Banks and Diamond (2010) argue for a positive tax on the return to saving, but argue that it should not necessarily be as high as the tax rate on labour income.
- Income taxes levied only on labour/employment income (such as social security/payroll taxes) do not distort the spending/saving decision although they do distort decisions over how long and hard people work. New Zealand has no taxes of this nature except the ACC levy.
- GST is seen as a tax that does not distort the decision to spend income now rather than save for spending later.

#### **Box 4: Why is GST better than income tax when it comes to encouraging saving?**

Imagine a family has \$100 left from their monthly pay packet after normal expenses have been met and are deciding whether to spend it now or save it in the bank for 10 years earning 6% interest per year.

Imagine, too, that the country they live in, called Saveland, does not tax income from savings but does have a 15% GST. If that family banks its \$100 for 10 years earning 6% per year, it will earn \$79 interest, giving it a total to spend at the end of 10 years of \$179. Whether the family decides to spend its \$100 now or save it in order to spend \$179 in 10 years, the rate of tax it will pay in each case is the same, 15%.

Now imagine that same family lives in Spendland, which does not have GST but does impose income tax at 33% on interest earned each year. If that family banks its money at 6% interest, at the end of 10 years it will have \$148 to spend (after income tax has been taken out of its interest income each year). The impact of tax on the family's decision to spend or save is quite different. If it spends the \$100, it will pay no tax. If it saves it, paying tax over time will have cost the family \$31, an effective rate of tax of almost 40%.

Which family is more likely to decide to save their money rather than spend it?

Which country is likely to have a higher level of saving?

Box 4 gives an example of the way income tax distorts a particular saving decision. A further observation is that the distortion is higher the longer the money is saved, and the degree of distortion is different for different investments. In the example above, if the Spendland family saved for 20 years, the effective tax rate would increase to over 45%, and if instead of putting it in the bank, it invested in properties or shares returning 4% dividends or rent plus 2% capital appreciation, the effective tax rate after 10 years would be about 27%, and after 20 years about 32%.

When considering priorities for tax change, it is useful to bear in mind that as income tax rates are lower than they otherwise would be absent GST, New Zealand's income tax model is ttE (where the lower case t denotes a tax rate lower than what would otherwise be the case). Given that the GST rate is not as high as it would be absent income tax, it could be described as EEt. Together our system can be described as ttt.

This is not unusual internationally. The key issue from a savings perspective is how big the t's should be. New Zealand tends to be more reliant (than most comparable countries) on income taxes than on other taxes, and does not have EET or TEE applying to any retirement savings. It is likely, therefore, that the structure of New Zealand's tax system is more biased against saving than in comparable countries. Further, with no capital gains tax, the New Zealand tax system is biased towards a large block of economic activity – property investment – that tends to be at the less productive end of the spectrum.

### 7.2.3 Income tax incentives – can they increase national saving?

Under current tax law, returns to savings are generally taxed under the personal income tax rate structure (10.5%, 17.5%, 30% and 33%). The application of income tax reduces returns to savings by the tax rate applied.

Economic theory alone is unable to determine whether or not a cut in taxes on savings would increase household saving. This is due to offsetting “substitution” and “income” effects. While increasing the return from saving will increase the reward from saving which by itself will promote saving (the “substitution” effect), it will increase disposable incomes for those with positive amounts of savings and allow them to reach retirement savings goal with less saving (the “income” effect). Thus, the substitution and income effects will work in opposite directions.

In addition, when analysing the effect that reduced income tax rates can have on national saving, household saving is only one side of the story. Government saving is the other side. A reduction in income taxes on savings will generally decrease tax collections. Therefore, for a reduction in income tax on savings to increase national saving, any additional household saving needs to be greater than the revenue cost to the government. For example, if the reduction in income tax is matched by an increase in other taxes (e.g., GST), then there is no income effect and there is thus likely to be an increase in national saving.

The literature in this area falls into at least two categories. The first concerns tax incentives for particular forms of retirement savings and their effect on aggregate savings. The second concerns cuts in the tax rates for capital more generally and their effect on national saving.

#### *Tax incentives for retirement savings*

There is a large but somewhat inconclusive literature on the extent to which tax incentives for particular forms of retirement savings increase aggregate savings. As well as the difficulties untangling the

“substitution” and “income” effects described above, there are also difficulties determining the extent to which tax incentives motivate people to reallocate existing savings to take advantage of the tax incentive and to what extent they create new savings. Globally, there are a number of data-related reasons why conclusions are difficult to draw, including:

- 1 Complete and reliable data describing saving and consumption behaviour are available only at a few points in time and good quality time-series data are very difficult to obtain.
- 2 Aggregate analysis may be biased by individual characteristics affecting the decision-making process, such as age, gender and marital status.
- 3 Investigations of household behaviour are based on very short data periods that may not be sufficient to provide a clear picture of the effects of incentives.
- 4 Cross-country comparisons are often inconclusive – largely due to the problems described above.
- 5 Many researchers’ interpretations of the data depend on assumptions of perfect information and rationality, which are unrealistic in practice.

While these difficulties exist, two tentative conclusions can be drawn from the available literature (Antolin and Ponton 2007). The first is that tax incentives increase retirement saving mostly by reallocating existing savings. Secondly, while there is some evidence that tax incentives for retirement savings may produce a small amount of new saving, the increase is much lower than supporters of tax incentives often advocate. However, tax incentives may reduce the relative tax advantage of other classes of investments (such as owner-occupied housing, or investments made for capital gain) and thus improve the overall allocation of savings.

#### *Reducing tax on capital more broadly*

Another way of analysing the issue is to consider the effect that reducing tax on capital more broadly may have on national saving. We include here tax on all investment returns – interest, dividends, rent and capital gains. The SWG received advice from officials based upon two surveys (Attanasio and Wakefield 2010, Bernheim 2002) of the recent literature using life-cycle models. Officials from Inland Revenue performed simulations using a life-cycle model based upon those surveys – calibrated to New Zealand.

A key parameter in determining the responsiveness of savings to changes in after-tax interest rates is the “intertemporal elasticity of substitution.” This measures the willingness of people to change their spending from one period to another. Bernheim argues that this lies somewhere between 0 and 1 and Attanasio and Wakefield argued that this lies somewhere between 0.4 and 1 (the higher the number the more people increase saving in response to changes in the after-tax interest rate).

Attanasio and Wakefield choose a figure of 1 for their base case which keeps the analysis as simple as possible but seems biased towards assuming the most optimistic responsiveness of saving. They found that retirement wealth increased, but concluded that there was little effect on national saving. In their study, over 90% of the increase in private wealth was offset by reduced tax revenue.

Officials chose 0.6 when calibrating the life-cycle model for New Zealand. This is in the middle of the feasible range cited by Bernheim and Attanasio and Wakefield. They also took account of a number of key features of New Zealand’s tax system which will lower the responsiveness of savings to changes in capital taxes relative to what has been modelled elsewhere, because households can invest in



assets which have low or zero capital income tax. For instance, most savers will acquire an owner-occupied house over their lifetimes. Every dollar spent repaying their mortgage effectively earns the pre-tax interest rate and thus is not taxed. This is in contrast to the United States where mortgage interest is deductible from taxable income. Under New Zealand assumptions, the increase in private saving from cutting capital income taxation was only about 85% of the foregone revenue cost to the government. That means the long-run stock of national savings would fall.

These numbers should, of course, be used with caution. The model is highly stylised and does not attempt to take into account all the determinants of savings levels.

For anything other than a revenue-neutral shift away from income tax, there is a high degree of uncertainty over whether or not cutting the tax rate on private saving alone will increase or decrease national saving. Thus, decisions on whether or not to cut taxes on capital income should not be made primarily in terms of their effects on the quantity of national savings.

#### *Why reducing income tax on savings is still important*

Irrespective of the effect on national saving, there is a reasonable concern that high rates of tax on the returns to saving have undesirable economic effects. High tax rates on savings can be particularly distorting because of the bias they create towards consuming earlier rather than later in life. They also distort investment choices towards assets that generate income subject to low effective tax rates such as rental property. Moreover, the size of the inefficiency – and therefore its economic cost – rises with the length of time between consumption now and later and hence affects the incentives for sustained wealth accumulation. Therefore, reductions to the income tax rate on capital can be justified on economic efficiency grounds – particularly if they can be achieved in a fiscally responsible manner.

#### **Box 5: Tax on investment income has the greatest effect on retirement income**

The most important tax from the saver's point of view is tax on investment income (i.e., the middle T). This has a far greater effect on retirement income than a tax on contributions or a tax on retirement income. Most countries in fact use a TEE or EET system, or in some cases TtE or EtT. New Zealand is virtually alone in using TTE in respect to income tax on retirement savings.

Ezra *et al* (2009, p44) derived the "10/30/60 rule." They use the example of a 35-year-old worker who saves a fixed percentage of an increasing payroll stream until retirement at age 65, and then draws down an inflation-indexed pension until age 90. Using reasonable assumptions with no tax (E) on investment income, they calculate that the total retirement income from age 65 to 90 is financed just 10% from contributions, 30% from investment income before retirement, and a surprising 60% from investment income after retirement. Thus 90% of retirement income is generated by (compounding) investment income. This is why taxing investment income has a much greater effect on net retirement income than taxing contributions or gross withdrawals.

### 7.2.4 Increasing the level of national saving by changing the structure of the tax system

#### *Continuation of the switch towards consumption tax and away from income tax*

Because GST is less distorting than income tax on the saving decision, the SWG supports a continuation of the switch from income tax to GST (as occurred in the 2010 Budget), and recommends that consideration be given to an increase in GST from 15% to 17.5% (together with compensating income tax and benefit changes for lower income earners). For most people with the means to save,

this switch will keep their real income roughly constant. Hence they will not experience an “income effect” that would otherwise act against their pro-saving “substitution” effect. Such switching should continue, but not go so far as to:

- Compromise the current broad-base, one-rate integrity of GST (by, for example, the introduction of a lower rate for food).
- Demonstrably push too much further activity into the so-called black economy.
- Exceed the tolerance of the highly mobile element of New Zealand’s labour force.

The SWG notes that any switch from income tax to GST does effectively reduce the purchasing power of existing savings. While this is inevitable and unfortunate (as several submissions said), most people with current savings will benefit from the lower rates of income tax on all their income (including returns on savings). This is true for people over 65, who pay relatively high average taxes on their capital income as they are wealthier on average than working age people and hold a disproportionate amount of bank loans.<sup>18</sup>

If the government raises GST, it will be able to either reduce its fiscal deficit (and therefore its debt) and/or further reduce the marginal rates of tax on income (from both labour and capital/investment). Either change should be positive in terms of New Zealand’s level of national savings.

To the extent that the government needs tax revenue above what can be obtained through GST – including for specific (savings-issue-related) purposes – the SWG recommends that consideration be given to (savings-neutral) income taxes levied only on income from labour.

Many countries effectively achieve a full switch from income tax to consumption tax (EET) for certain retirement savings (in qualifying vehicles akin to KiwiSaver) by exempting contributions from income tax, and exempting the investment income earned while the funds are in the vehicle, but taxing the money when withdrawn in retirement. Another variation is to apply a lower but not zero rate of tax on investment income, i.e., TtE. the SWG notes that these treatments would not necessarily increase the level of national savings (although it would undoubtedly increase the level of savings undertaken through these vehicles).

### 7.2.5 Thin capitalisation rules

Tax thin capitalisation rules apply to deny offshore-owned companies deductions for interest on borrowing to the extent that they exceed a certain level of gearing (set by reference to their world-wide group gearing ratio, or a “safe-harbour” ratio). Reducing the safe-harbour ratio will reduce the level of gearing into New Zealand by offshore owners (other than for those already using their world-wide group ratio as a benchmark). While this of itself will have no impact on national saving, it would shift the composition of national savings more towards equity than debt.

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<sup>18</sup> New Zealanders aged 65 and over obtain between 30% and 40% of their income from sources other than NZ Superannuation (Statistics NZ, 2004). In addition, according to 2006 SoFIE data, people over 65 (i) are 17% of the population over 15; (ii) own 22% of net wealth in New Zealand; (iii) have average net wealth of \$320,000, 54% in housing, 9% in business assets, 8% in bank loans, 29% in other assets; and (iv) have 35% of net bank loans and 27% of housing wealth in New Zealand (Scobie and Henderson 2009).

Given the direct and beneficial impact a gearing reduction would have on New Zealand's net foreign liability position (and the beneficial impact on tax revenues), the SWG supports the recently enacted reduction in the safe-harbour ratio from 75% debt-to-assets to 60% (applying from the 2011/12 income year), as recommended by the TWG. Furthermore, the SWG recommends that a further reduction in the safe-harbour ratio should be considered, if the reduction to 60% does not result in many companies having to adopt their world-wide group ratio as a benchmark (indicating that the new safe-harbour ratio is still too high).

#### 7.2.6 Reducing the inherent over-taxation of savings in income tax

It is reasonable to expect that New Zealand will always have an income tax. Given the over-taxation of savings income inherent in a relatively broad-based income tax, the SWG considered a range of potential mitigants.

*Continue to broaden the base and keep rates low, with a simple structure (i.e., further reduce the first two T's for most income and raise T for income that is currently tax-preferred):*

The SWG supports continued reduction in the rates of income tax and base broadening to lessen the bias against and distortions between savings.

*Reduce tax rates on income from all savings/investment (reducing the middle T):*

The most comprehensive approach is a Nordic/Dual system (across-the-board scheduler approach, taxing all savings/investment income at a reduced rate). The SWG agrees in principle with the argument behind a reduced rate on income from savings (which in the New Zealand context could be a rate of around 12.5%-15%). But the SWG notes that in the absence of a capital gains tax combined with New Zealand statutory rates of tax on income from savings that are not as high as overseas, the effort and complexity of a full-blown Nordic/Dual approach does not justify its adoption. The SWG considers that modifying the existing mechanisms (see below) can move New Zealand in the direction of a Nordic approach but in a more straightforward way.

*Reduce tax rates on income for only certain retirement savings (in KiwiSaver and qualifying vehicles akin to KiwiSaver):*

This option, common in other countries, offers certain savers/investors what is in effect a reduced rate on certain investment income (usually income arising from long-term saving), and therefore goes some way towards a Nordic/Dual approach. The SWG notes that this would not necessarily increase the level of national saving (although it would undoubtedly increase the level of savings undertaken through these vehicles). However, as stated earlier, if there are other reasons for favouring such vehicles (enabling better quality investment, encouraging longer-term saving) such a mechanism would be worth considering further. Again, this option should be considered applying rates of tax no higher than 12.5%-15%.

*Broadening and rationalising the PIE regime:*

The SWG notes that the current PIE regime offers certain savers/investors what is in effect a reduced rate on their direct investment income, and therefore goes some way towards Nordic/Dual. This currently arises only in a portfolio investment (and de facto bank deposit) context, and the extent of the reduction in the tax rate, if any, is a function of each investor's particular circumstances. Some are able to be taxed at their correct marginal rate, many at 28% instead of 33%, many at 17.5% instead of

30%, and some at 10.5% instead of 17.5%. Most investors in PIEs are effectively able to access a tax rate that is either 5 or 12.5 percentage points lower than their prima facie marginal tax rate.

While the original justification for the PIE regime was to try to apply investors' expected personal tax rates on their direct investment income to income from investments held through collective vehicles, from a savings perspective it can be rationalised as a mechanism for reducing tax rates on income from a broad spectrum of saving. The SWG notes the TWG recommendation that the capped top PIE rate should have been aligned with the top personal marginal rate, but the SWG considers that from a savings context (and absent Nordic and similar rate reductions on savings) the top PIE rate should be maintained at a minimum of 5 percentage points below the top personal marginal rate (and preferably 10 percentage points below).

Noting the inconsistency of rate reduction amongst different investors in PIEs, the SWG considers that the PIE rate-election rules should be changed to target a rate reduction for all investors closer to the benchmark of 5 to 10 percentage points (noting that for some investors this could mean an increase in the tax they pay on PIE investments).

What's more, absent those other reforms, the SWG recommends the broadening of the reduction of rates not only to all PIE incomes, but also to interest and dividends earned by New Zealand residents.

To achieve this, the SWG recommends that:

- a PIE rate-election rules be applied for resident withholding tax (RWT) purposes. As with PIE, the RWT would be a final tax unless the investor has declared the wrong rate.
- b Imputation credits be refundable to the extent that an investor's RWT rate is below 28%.
- c Interest deductions related to such income be reduced consistently with the lower tax rate on income. This would apply if someone borrows to invest.

### 7.2.7 Indexation

It is well accepted that taxing income on a nominal rather than real (i.e., inflation-adjusted) basis not only lifts the effective rate of tax on savings (and exacerbates the bias to current consumption), but it also changes the after-tax return to different investments and therefore can have a detrimental impact on quality of savings/investment. Although inflation rates have been relatively low for some years, they are nonetheless significant in the context of real investment returns, particularly if nominal interest rates are also low. This is perhaps most evident in relation to interest, where a lack of indexation is potentially doubling effective rates of tax for many investors (while at the same time providing a significant subsidy to borrowers). The SWG recognises that indexation is not common in other countries (and even then, usually only short-lived in times of high inflation), and that it would add complexity to the tax system and involve significant fiscal cost. However, the SWG:

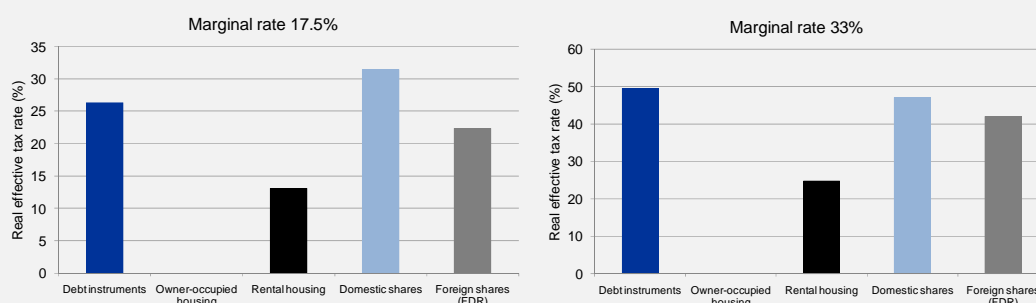
- Finds it incongruous that income from the simplest saving products – bank deposits or loans – face the highest real effective income tax rates in New Zealand.
- Sees no reason for subsidising investment financed by foreign debt (by allowing firms to deduct nominal rather than real interest payments for tax purposes) and thus discouraging foreign equity financed investment.

- Sees no reason why depreciation allowances or inventory costs are not indexed for inflation.
- Notes that failure to index the tax system increases the tax incentives for New Zealanders to invest in owner-occupied housing rather than other forms of saving products, and for investors to invest in property rather than other classes of assets. There are reasons to believe that the non-indexation of the tax system contributed significantly to the recent house price boom, and may have, as a result, lowered home ownership rates.

**Box 6: Effective tax rates on different classes of investments**

The following figure shows the effect of inflation and other factors on the effective real tax rates on different classes of assets for investors on 17.5% and 33% marginal tax rates, when the inflation rate is 2% and nominal interest rates are 6%. For rental housing, 50% of the return is assumed to be rent and 50% in non-taxable capital gains.

**Figure 7.1: Real effective tax rates**



Source: Treasury (2010b)

The large differences in effective rates distort the way people hold their savings and are likely to have played a part in New Zealanders' attraction to owner-occupied and rental housing since these asset classes are tax preferred over shares and debt instruments. The SWG's tax proposals, including broadening PIE and inflation indexation, would reduce these differences by lowering tax rates on the returns from non-property saving options. They would provide a higher after-tax return and thus a more attractive alternative to property investment and would be likely to raise the efficiency of investment and restrain house prices.

There are two reasons why non-indexation may be more distortionary in New Zealand than other countries.

- 1 Most other countries impose capital gains taxes, which reduce the incentive to borrow to invest in asset classes that increase in value when there is inflation.
- 2 Most other countries provide households with retirement saving vehicles that are less distorted by inflation because they are taxed more according to expenditure tax principles rather than income tax principles.

In the absence of indexation, the New Zealand government will continue to impose significantly penal tax rates on lenders and offer significant tax subsidies to borrowers.

The SWG notes the conclusion of the 1989 New Zealand Government *Consultative document on the taxation of income from capital* (the Caygill report) that indexation was not infeasible.

The SWG therefore recommends that the Government considers two options for indexing the tax system:

- a At a minimum, index interest income and expense (arising from all non equity-type financial arrangements) by a notified standard rate that reflects the rate of inflation (e.g., 2% per year)
- b Alternatively, index interest (as above), together with asset cost bases for depreciation purposes, and, potentially, trading stock opening balances.

The SWG acknowledges that other recommendations it is making (such as reducing income tax rates both generally and on income from savings) may ameliorate the adverse effect on saving of not indexing for inflation. However, it considers there is merit in indexation even if other changes proceed.

### 7.2.8 Company tax rate

The SWG saw no compelling saving-based case for unilaterally further reducing the company tax rate. In the New Zealand domestic context, company tax is akin to a withholding tax: tax is paid by the company on its profits pending a credit against each (New Zealand resident) shareholder's own tax liability as and when such profits are distributed through dividends and bonus issues. With respect to non resident shareholders (who do not get the benefit of imputation credits) a reduction in the rate of company tax in New Zealand will usually just involve a windfall benefit (and for those few countries that provide a credit for New Zealand tax, just a shift in where it is paid). While adopting very low rates of company tax is a mechanism used by a number of countries to make themselves more attractive to foreign investors, the SWG is sceptical of New Zealand's ability to compete effectively in this regard – both due to fiscal affordability, and other countries having 'deeper pockets'.

The SWG recognises both that there may be net benefits for the economy in reducing the company tax rate, and that there may be a case for reducing it in light of changes to other aspects of the income tax regime (e.g., if PIE and resident withholding tax rates are further reduced).

### 7.2.9 Other

The following features of any system that taxes income from savings/investment can adversely affect the quality of savings/investment by impacting on decisions on what to invest in and how to structure investment: inequity/inappropriateness, inconsistency, and complexity. These are all inevitable to some degree in any income tax system, and New Zealand does better than most. However, the SWG recommends that the following areas should be examined in more detail in order to create a better environment for quality investment decision-making.

#### *Inconsistent tax treatment of different forms of savings*

While the taxation of income from savings may justifiably be different from the taxation of other income, the SWG strongly supports a continued focus on ensuring as much consistency as possible in the taxation of different forms of savings. The tax rules for the main savings asset classes and also the treatment of the different entities savings are commonly held in are complex, result in often inconsistent outcomes, and are sometimes arbitrary.

#### *Mutual recognition of imputation/franking credits*

The SWG notes submissions calling for the mutual recognition of imputation/franking credits between Australia and New Zealand and supports that view.

### *Tax rules for off-shore investment*

The SWG is aware of investor frustration in relation to the fair dividend rate regime that applies to the taxation of non-Australian-listed off-shore portfolio holdings, both due to the perceived arbitrary and unfair nature of the regime itself, and the complications in correctly calculating taxable income from such investments.

## 7.3 Long-term saving

### 7.3.1 PAYGO versus SAYGO<sup>19</sup>

#### *Background*

New Zealand has a “defined benefit” state-run pension scheme funded out of general tax revenue. Until 2001, this was run on pay-as-you-go (PAYGO) principles, that is, eligible pensioners were paid directly from current taxes. Since the NZ Superannuation Act (2001), the Government has partially prefunded its pension obligations. Under the Act, additional general taxation revenues are placed in the NZ Superannuation Fund, and used to purchase a diverse basket of investment assets. The fund is to be drawn down when pension obligations increase in the future as a result of population ageing. Additional prefunding ceased in 2008, but is intended to begin again once the Government’s fiscal position improves.

The 2001 Act represents the first attempt to move New Zealand from a pay-as-you-go government pension scheme to a save-as-you go (SAYGO) pension scheme. The switch was made without changing the underlying flat-rate, universally eligible pension.

#### *PAYGO and SAYGO pension schemes*

Pension schemes can be classified according to their funding arrangements and their payment arrangements.

Under a PAYGO scheme, each year’s pension payments are financed from current taxes. There is no saving or accumulation of assets.

Under a pure SAYGO scheme, taxes are collected in advance and accumulated into a fund, and the pension is financed by drawing down the fund. A SAYGO scheme is fully funded if each cohort contributes enough in taxes to cover their retirement pension entitlements.

During a transition from a PAYGO to a SAYGO system, savings accumulate since the new money paid into the fund as taxes together with investment earnings will be larger than the total pensions being paid out. However, as the fund matures, total pension payments will rise, and the size of the fund will stabilise. A mature SAYGO scheme in a demographically stable country will not generally affect the saving rate, as payments into the fund will equal money being withdrawn. However, the country will have greater accumulated wealth, and larger gross national product. Also, during the transition period, the impact on national saving (the flow measure) could be expected to be positive.

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<sup>19</sup> Refer to Coleman (2010) for a more detailed discussion of this topic.

If New Zealand further increased the SAYGO component of its pension funding arrangements it could either keep the current defined benefit scheme, or adopt a “defined contribution” scheme whereby individual pensions depend on each person’s contributions and investment return. Although the following discussion assumes the current defined benefit payment arrangements will be maintained, the points remain relevant even if the arrangements are changed.

#### *Advantage of a mature SAYGO scheme*

For the same ‘defined benefit’ pension payments, a mature SAYGO system requires lower contributions from taxpayers than a mature PAYGO system so long as the return to capital is greater than the growth rate of GDP. This condition is true in most countries including New Zealand. A SAYGO scheme can have the same pension payments with lower taxes because the tax contributions are saved, wealth accumulates and earns interest and dividends. Furthermore, the saved contributions can be invested overseas, where the returns to capital may be higher than in New Zealand. In the long run, therefore, a fully funded SAYGO pension scheme is likely to be more attractive than a PAYGO pension scheme.

#### *The costs and benefits of making the transition to SAYGO*

While attractive, making the transition from a PAYGO scheme to a SAYGO scheme is costly. To reduce the future tax burden facing taxpayers and/or their descendants, taxpayers will temporarily have to pay higher taxes. Whether a society believes these changes in the pattern and timing of tax payments are worthwhile is fundamentally a political question. The answer will depend on who pays higher taxes, who pays lower taxes, and how current and future taxpayers value the tradeoff. The extent *current* taxpayers benefit from the transition will depend on:

- 1 The extent they benefit from lower taxes in the future, which depends on the length of the transition and the difference between the returns to invested capital and the growth rate of GDP.
- 2 The extent they value paying lower taxes in the future compared to paying higher taxes now.
- 3 The extent they value future cohorts obtaining lower taxes.

If New Zealand continues to operate a PAYGO-funded pension scheme with current payment levels, population ageing means future taxes will have to increase. In this case, the transition to a SAYGO-funded pension scheme entails increasing taxes now to prevent even higher taxes in the future. This transition has the benefit of reducing the long run deadweight costs of taxation.

#### *Investment options*

These benefits of making the transition will be greater the higher the investment returns earned by the fund. To obtain higher returns, most economists recommend the fund should be invested in a diverse basket of long-term assets, rather than government bonds. Purchasing diverse assets has different risks from purchasing government bonds, but governments are ideally situated to bear this risk, as they have long horizons and can use their balance sheet to shift abnormal shocks from one generation to another (see Diamond, Auerbach *et al* (1997) or Lindbeck and Persson (2003)).

Government-run investment funds face the risk of government interference, government expropriation, and the desire of government agents or political parties to intervene in corporate management. These risks can be managed if the fund uses professional wholesale money managers, the approach used by the NZ Superannuation Fund. The risk of misappropriation is smaller when the country’s citizens



closely identify the fund's assets with a particular purpose. This can be done by ring-fencing the fund from general expenditure, or by financing the fund from a dedicated tax stream. Several OECD countries use dedicated taxes to fund pensions.

The government could require the fund to invest in government bonds. When contributions to the fund are financed out of general tax revenues, this is broadly equivalent to paying off government debt. The transition will still be worthwhile so long as interest rates exceed the growth rate of GDP. However, the benefits of investing in bonds or repaying debt will on average be lower than the benefits of investing in diverse assets, since the expected long run returns are lower.

#### *The effect on national saving*

An economy with a balanced budget and a PAYGO pension scheme has no direct effect on government saving, as the tax revenues in are equal to the payments out. National wealth may be less than otherwise, however, as households have to save less for their own retirement. When making the transition to a SAYGO pension scheme, there are a number of effects:

- a During the transition, government saving increases. National saving is also likely to increase as the tax rises reduce private consumption as well as private saving.
- b Over time, national wealth increases as the pension fund accumulates.
- c When the fund is mature, there may be a modest boost to national saving rates if wages increase through time. This could mean that the contributions of the working age exceed the withdrawals of the old, although this would also depend on the design of the scheme. The lower equilibrium taxes that would be required would further encourage wealth accumulation.

Peter Diamond concludes: "a near-term tax increase to build and maintain a permanently larger trust fund would increase national saving" (Diamond, Auerbach *et al* 1997, p65).

#### *Prefunding other expenditure*

The logic of a prefunded SAYGO tax-pension system can be extended to other aspects of fiscal policy. A government could temporarily raise taxes and build up an asset fund in order to reduce the long-term taxes needed to pay for health care or education. Alternatively, it could temporarily raise taxes to lower debt and reduce taxes in the long run. In each case there would be a temporary increase in the saving rate and a long-term increase in wealth.

The extent to which a society will wish to pay temporarily higher taxes to build up a trust fund to lower future taxes will depend on tax incidence during the transition period and people's confidence that these funds can be appropriately managed and not dissipated by a future government.

#### *Conclusion*

A well structured, prefunded SAYGO pension scheme will raise national savings (accumulated assets) relative to the current PAYGO scheme. During the transition from a PAYGO system to a partially or fully prefunded scheme, national saving (flow measure) should also rise. A mature SAYGO system will allow lower taxes than a mature PAYGO scheme, which may further encourage private asset accumulation.

Note, however, that while the transition from a PAYGO system to a SAYGO system is likely to raise national saving, it will not necessarily raise welfare. In the circumstances prevailing in New Zealand, the transition essentially requires a temporary increase in taxes to prevent taxes from rising even higher in the long-term. These taxes will in part fall on different cohorts, making the estimation of the welfare consequences of the transition complicated.

### 7.3.2 NZ Superannuation Fund

A typical OECD country pension model is sometimes referred to as the three-tier system, where the tiers are:

**Tier 1:** a publicly-provided pension.

**Tier 2:** mandatory personal retirement savings.

**Tier 3:** voluntary personal retirement savings.

New Zealand has tiers 1 and 3, with NZ Superannuation being the tier 1 scheme and KiwiSaver being a tier 3 scheme.

Tier 1 schemes cover safety net pensions, which are paid by the state. Some countries, such as Chile and New Zealand, have established funds to partially pre-fund the future costs of pensions. While age pensions are often means tested, NZ Superannuation is universal, being available to all persons over 65 who meet residency requirements. The level of NZ Superannuation is tied to wages, with the post-tax level of pension for a couple being equal to at least 66% of the net post-tax average wage. The level for an individual is set relative to the level for a couple.<sup>20</sup>

#### *Background to the NZ Superannuation Fund*

If the current policy parameters for NZ Superannuation are maintained, its net cost to the Crown will rise from the current 3.7% of GDP to about 6.9% of GDP by 2060.<sup>21</sup> This reflects a permanent change to the age structure of the population arising from increasing longevity and declining fertility.

The NZ Superannuation Fund was established to help smooth the impact of this change on the rest of the Crown's finances. It does this by taking capital contributions from the budgets in earlier years, then starting to draw on the Fund as the cost of NZ Superannuation begins to mount up from about 2030 (see Figure 7.2 below).<sup>22</sup>

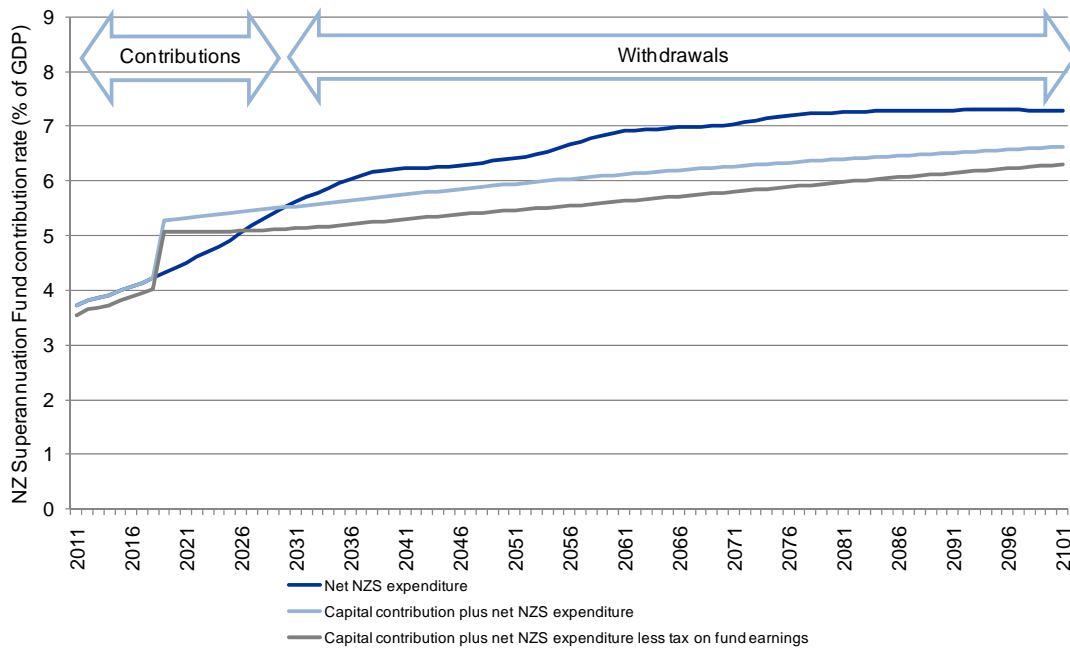
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<sup>20</sup> The current standard rate of NZ Superannuation for a married couple, with both qualifying, is \$561.24 per week (\$280.62 each).

<sup>21</sup> NZ Superannuation payments are subject to income tax which is withheld by the Crown, so the net effect on the rest of the Crown's finances is: NZ Superannuation payments to recipients (less PAYE tax) plus capital contributions to the Fund minus capital withdrawals from the Fund and tax paid by the Fund on its taxable income. [Note that the tax rate is taken into account in the capital contribution calculation, with the result that the net flows from the Crown are about the same, regardless of the tax rate.]

<sup>22</sup> "The smoothing algorithm stated in the legislation for the rate of contribution to the Fund is to annually set the required contribution for the next year at the level that, if that same proportion of forecast nominal GDP was made to the Fund each year for the succeeding forty years, the Fund balance plus accumulated returns would be expected to be sufficient to meet entitlement payments over those forty years." (McCulloch and Frances 2001)

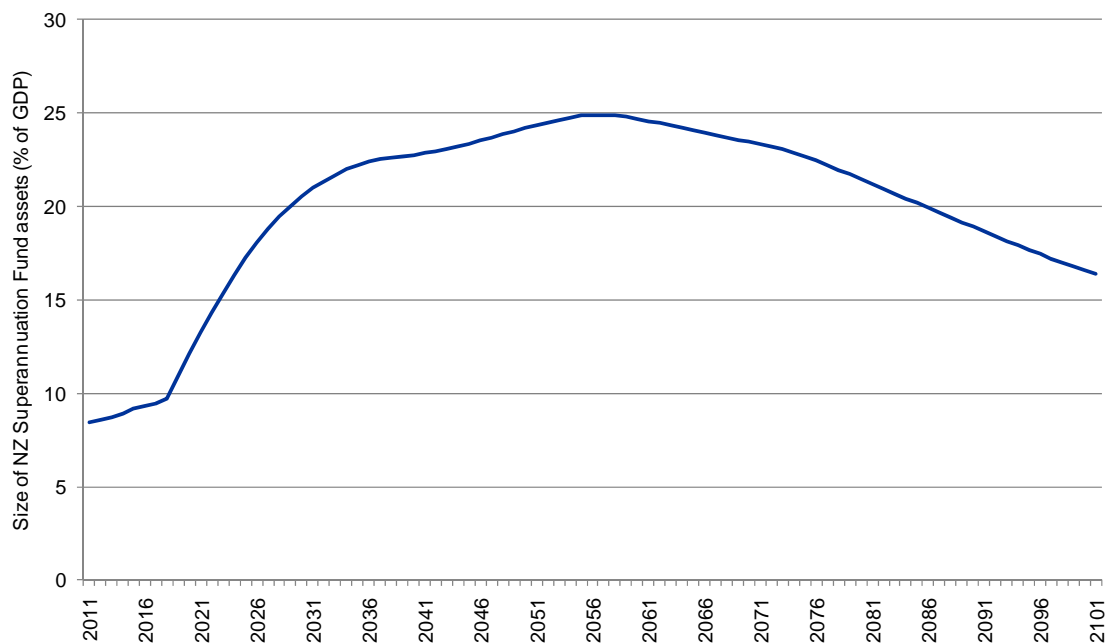
**Figure 7.2:** NZ Superannuation Fund contribution rate<sup>23</sup>



Source: *The Treasury*

Even with the current break in capital contributions, and with capital withdrawals from the Fund starting in about 2030, the Fund is expected to grow from its current 8.5% of GDP to about 26% of GDP in about 2060, before starting to decline relative to GDP. However, it would stay significantly above its current level well into next century (see Figure 7.3 below).

**Figure 7.3:** Size of NZ Superannuation Fund assets



Source: *The Treasury*

23 These graphs are from the Budget 2010 version of the NZ Superannuation Fund Model, published at: <http://www.treasury.govt.nz/government/assets/nzsf/contributionratemodel>.

The NZ Superannuation Fund issue is at the core of the debate on whether to pre-fund future superannuation requirements or simply fund them out of current tax revenues at the time payments are made. Funding the Fund out of current tax revenues while maintaining the existing NZ Superannuation system would leave New Zealand with a combination of PAYGO and SAYGO with the mix still heavily weighted to the former.

More generally, there is the argument that forcing the Government to put money into the Fund will create stronger fiscal discipline. When surpluses are being run the funding requirements of the NZ Superannuation Fund will reduce the pressure that governments inevitably come under to return money to the people either by way of tax cuts or increased government expenditure.

Whether current public pension arrangements remain in place, or are changed, the SWG believes there is an arguable case for continuing to pre-fund the state pension based on our preference for an increase in SAYGO.

The NZ Superannuation Fund was funded directly out of tax revenues and, at the time of its inception, was also instrumental in reducing the possibility that the government might feel obliged to re-inject “surplus funds” into the economy thereby exacerbating what was an already overheating economy at the time.

As the fiscal outlook deteriorated in 2008, it became apparent that future contributions to the NZ Superannuation Fund might have to be debt-funded. A decision was made by the current Government to suspend contributions until the fiscal position was such that resumption would be appropriate.

For now, then, the NZ Superannuation Fund is in limbo. As at 30 September 2010, it had assets of \$17.2 billion, but the fund is growing only to the extent that it achieves positive returns. The longer contributions remain suspended, the less the fund will be able to offset the burden of future superannuation payments.

Of concern to the SWG is analysis that shows that even with a return to the original method of funding, the level of unfunded liability relative to GDP will continue to grow.

An increased level of funding would be needed to close this gap. One way of doing this may be to introduce a dedicated social security tax (with an offset to ordinary income tax) equal to the new entrant fund rate. A social security tax would create a discipline of continuing saving regardless of the fiscal position, and current anomalies in the benefit formula could more easily be repaired.<sup>24</sup>

#### *Views of the SWG*

The questions that need answering now are:

- 1 Should the fund be continued or broken up?

The SWG believes there is an arguable case for continuing to pre-fund NZ Superannuation.

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<sup>24</sup> See Section 9.6

2 If it is to be continued, how should it be funded?

A more reliable funding requirement, such as a set percentage of GDP, should be considered, with more limited flexibility for the government of the day to deviate from that. Contributions may need to be raised to ensure intergenerational fairness in light of population ageing.

3 Does the fund have a role over and above its stated intent to pre-fund future superannuation payments?

As a New Zealand based investor that is both large and with a long time horizon, the Fund will make a significant contribution to New Zealand's capital markets.

However, decisions about the Fund need to be considered alongside the wider debate around retirement saving especially decisions made around NZ Superannuation parameters and around KiwiSaver compulsion and incentives.

### 7.3.3 Compulsion

It can be argued that New Zealand already has one compulsory retirement scheme – NZ Superannuation. Under this scheme pensions are currently paid from taxes, and the payment of taxes is compulsory.

This compulsory scheme is generally regarded as working well, although some have expressed doubts about whether it will remain affordable as the population ages. The principal objective of NZ Superannuation appears to be preventing poverty among the elderly. It is a generous tier 1 scheme by OECD standards, and current settings appear to be effectively achieving this objective, with those aged 65 and over experiencing relatively low hardship rates (Perry 2010).

NZ Superannuation provides the highest gross payment in the OECD for a basic state pension: 39% of average earnings for a single person, compared to 27% across the OECD.<sup>25</sup> However, while the basic retirement pension is generous, the lack of a tier 2 scheme means average total retirement benefits are low by OECD standards.

The SWG canvassed a number of options in terms of mandatory retirement saving schemes (see Box 7) and consider that the most pertinent question in the New Zealand context is whether KiwiSaver, where membership is currently voluntary, should also become a compulsory scheme. This would move KiwiSaver from being a tier 3 scheme to a tier 2 scheme. Such a change would affect household and national saving, and we are interested here in knowing what that impact might be. However, there are clearly other issues that need to be considered. Making KiwiSaver compulsory would be a significant step, and would, in the end, be a political decision.

The sections that follow cover:

- A brief outline of some of the arguments for and against compulsory saving.
- Estimates of the impacts of KiwiSaver, including a compulsory version of KiwiSaver, on household saving and national saving.
- Conclusions of the SWG regarding compulsion.

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<sup>25</sup> OECD (2009). See the discussion in Whiteford (2010).

### Box 7: Options for mandatory retirement saving schemes

Most OECD countries have mandatory tier 1 and tier 2 pension schemes, and subsidised tier 3 schemes. These schemes can be classified by whether retirement incomes are independent of contributions or tax payments (defined benefit) or depend on the level of contributions or tax payments (defined contributions). New Zealand and Ireland are the only OECD countries not to have a tier 2 scheme.

**Table 4:** Classification of mandatory systems

|                               | <b>Tier 1<br/>Defined benefit</b>       | <b>Tier 2<br/>Mixed defined<br/>benefit/contribution</b>        | <b>Tier 2<br/>Defined contribution</b>   |
|-------------------------------|---|---|--|
| General Taxes                 | <i>New Zealand</i><br>Flat rate pension |   |  |
| Social Security Taxes         |   | <i>U.S., most Europe</i><br>Pension depends on<br>contributions |  |
| Compulsory Saving<br>Accounts |   |   | <i>Australia, Chile</i><br>Pension depends on<br>contributions and<br>investment returns |

New Zealand has five basic options for reform if it wishes to change its retirement policy.

#### *Modifications to present system*

- 1 New Zealand continues the current tax-funded defined benefit pension scheme, possibly modifying aspects of the scheme such as the amount of the benefit or the age of entitlement.
- 2 New Zealand continues the current tax-funded defined benefit pension scheme, but changes the incentives to encourage voluntary savings that would supplement pension payments.
- 3 New Zealand continues the current tax-funded defined benefit pension scheme, but supplements it with a defined contribution compulsory retirement saving scheme.

#### *Radical changes*

- 4 New Zealand adopts a mixed defined benefit/contribution pension scheme, funded by a social security tax that provides the current pension plus higher retirement incomes to those who have paid more taxes.
- 5 New Zealand replaces the current tax-funded defined benefit pension scheme with a full-scale defined contribution compulsory retirement saving scheme.

The SWG has considered all these options, but has focussed its attention on changes that modify the present system.

## *Arguments for and against compulsory saving*

### *Reasons for mandatory saving schemes*

Most people encounter two “saving problems” at some stage of their lives. The first of these problems is to overcome the temptation to spend when they want to save – a problem of self-control that Nobel Prize winning economist Thomas Schelling (1984) described as one of the central problems in most people’s lives. The second problem is working out how much to save, and how to invest these savings. For many people, neither problem is particularly challenging. For others, one problem or other is particularly difficult.

Society provides a variety of means to assist resolving these savings problems. We encourage children to learn and adopt good habits to ensure they save and invest wisely as adults. Banks, pension companies, and saving cooperatives develop products that make regular saving and investment easier.

Yet governments intervene in most developed countries, for three reasons:

- 1 They believe many people will solve the problems badly if left to their own devices.
- 2 They provide investment products that are not adequately provided by the private sector, such as annuities.
- 3 They provide “insurance” protection to ensure people have some resources in retirement even if they suffer catastrophic investment returns.

Internationally, most governments intervene through a combination of: regulating financial providers, providing people with information that can assist them save and invest, subsidising savings, and implementing mandatory schemes. The mix of these four choices depends on the extent that governments believe people can solve the saving problems. The aim is that most people will reach retirement age and not regret either the amount they saved or the way they invested.

New Zealand has smaller mandatory, tax-sheltered, or subsidised saving schemes than most other countries. The relatively limited use of compulsion and subsidised saving schemes seems to reflect a belief that most New Zealanders can adequately solve the saving problems, and a belief that the costs of compulsion and subsidies are very high.

### *The costs of mandatory saving schemes*

Each type of compulsory scheme has various costs and benefits. The three main costs are:

- 1 The timing cost – people are forced to save at times that may be inconvenient.
- 2 The portfolio cost – people are forced to invest in assets that they do not wish to purchase.
- 3 The work-disincentive cost – people have less incentive to participate in the paid workforce if the retirement income received is only weakly related to the funds contributed through mandatory taxes or compulsory superannuation deductions.

### *The estimated impact of KiwiSaver on national saving*

Using a number of scenarios, the SWG Secretariat estimated the impact of KiwiSaver on national saving. Three of these scenarios are presented in Section 9.5. The first of these is a voluntary scenario, under which the membership rate of KiwiSaver would rise from its present level of around 40% of the workforce to around 60%. This was considered to be a realistic estimate under a voluntary approach (prior to the modifications suggested below). The second scenario is a compulsory scenario where the membership rate is 100% of the workforce. The third scenario is another compulsory scenario, although in this one, membership contributions are increased from a level of 2% of an employee's wages to 4%.

The scenarios show that KiwiSaver should result in a rise in national saving and a smaller current account deficit, and should also reduce NFL as a share of GDP. On an annual basis the effects are not likely to be large. For example national saving is estimated to rise by around 0.2% of GDP under the voluntary option, rising to around 0.4% of GDP if the current scheme was made compulsory. However over time, rises of this magnitude can have a significant impact on the level of net foreign assets. For example, a 0.4% of GDP rise in national saving would mean that the annual current account balance was 0.4% of GDP higher than it would have otherwise been, and this would have a similar impact on the level of net foreign assets. Over a 10 year period, net foreign assets as a share of GDP would be around 4% of GDP higher than they would have been without this KiwiSaver scheme. Over a 20 year period they would be around 8% higher.

It should be stressed though that these calculations are indicative only. They depend to a large extent on estimates of how much of the household sector's saving in KiwiSaver is truly additional saving, and is not saving that was previous being done through other means. We have used Treasury estimates which indicate that just under 40% of total household contributions to KiwiSaver are additional saving.

While the scenarios informed the SWG's discussions, they were not the only or main determinant of the SWG's views on KiwiSaver.

### *Should KiwiSaver be compulsory?*

Overall, the SWG is comfortable with the nation's overall choices, made over an extended period of time, about the mix of mandatory and subsidised retirement schemes, although it believes that KiwiSaver could be modified to make it more effective. Even including KiwiSaver, New Zealand still has one of the smallest and least costly retirement savings programmes in the OECD. Nonetheless the Group is keen to see a move towards more of a SAYGO approach to funding retirement incomes. It is also plausible that KiwiSaver could be modified in a way that improves the overall quality of retirement saving portfolios. The SWG is of the view that:

- Membership of KiwiSaver remains voluntary. However, all employees over 18 who are not currently members of KiwiSaver should be automatically enrolled, with the ability to opt out within 2-8 weeks.
- Resumption of pre-funding NZ Superannuation, via the NZ Superannuation Fund, is highly desirable.

KiwiSaver is currently a tier 3 scheme, providing income in retirement that is additional to that provided by the compulsory scheme, NZ Superannuation. KiwiSaver is attractive for employees, and membership of the scheme has risen steadily since it was introduced.



Changing KiwiSaver to a compulsory scheme changes the nature and impact of the scheme. While a compulsory scheme will help some people to solve the two “saving problems” it will also create other problems for some people. It will force some people to invest in superannuation when they would rather invest in something else, like housing. This is the “portfolio cost”, mentioned earlier. It will also force people to save at times that may not be convenient for them (the “timing cost”). Both of these costs are likely to fall on young or low income people who are trying to establish themselves. They may be wanting to buy a car, house, to travel, to engage in further study, or buy/establish a business.

One possible way of trying to solve these problems may be to require only people who are aged say 40 or more to take part in the scheme. However, there are practical difficulties with this. Some people are still working to establish themselves at this age; having to contribute to KiwiSaver just because they have reached a certain age is not going to seem fair.

Keeping the required level of employee contributions at 2% keeps the barriers to entry at a low level. It makes it easier to convince people – especially low income earners – that they should be in the scheme.

KiwiSaver in its present form is a good mechanism for encouraging voluntary saving, instilling good savings habits, and potentially improving the quality of how people invest their savings. Many individuals probably view KiwiSaver as a trusted product, one that it is safe enough to put their voluntary savings into. It can therefore play a significant role in optimising, for individuals, the mix of compulsory and voluntary saving for retirement.

The auto-enrolment process proposed here is likely to result in a rise in KiwiSaver membership, and it will be interesting to see the effects of this. It is to be hoped that it will raise the level of participation to one that is closer to that a compulsory scheme, without imposing the costs on individuals that a compulsory scheme might do. Sticking with a voluntary approach to KiwiSaver right now does not preclude making the scheme compulsory at some time in the future. However, once a change is made to make the scheme compulsory, this change is likely to be irreversible.

### *Conclusions*

The group recommends that membership of KiwiSaver should remain voluntary, but there should be some changes with a view to increasing participation. For example, all employees over 18 who are not currently members of KiwiSaver should be automatically enrolled, with the ability to opt out within 2-8 weeks (see below).

#### **7.3.4 KiwiSaver design**

The SWG’s discussion focused on four areas where further improvements to KiwiSaver may be possible:

- 1 Whether the level of the subsidy is appropriate.
- 2 Whether the subsidy is in an efficient form. i.e. a lump sum matching contribution, rather than say a different tax rate on investment earnings.
- 3 Whether the default fund structures and the default saving portfolios are as good as they could be from the perspective of savers.
- 4 Whether the pay-out options are appropriate, or whether a case can be made for allowing people to use KiwiSaver money to purchase annuities in retirement in addition to NZ Superannuation.

The SWG does not have strong views about the level of subsidy, noting it is clear that there are fewer savings incentives in New Zealand than most other countries, and that the weight of evidence is that New Zealanders save too little rather than too much. It is not clear that the form of the saving incentives is ideal, however, and suggestions are made for improvements.

The SWG had particular concerns regarding the matters in points 3 and 4. The Group's view is that KiwiSaver has considerable potential to further help people select appropriate investment assets, both as they are accumulating funds and as they are decumulating funds in retirement. At the moment this potential is not being fully realised. If the purpose of subsidised saving schemes is to help people solve saving problems, much more could be done to ensure people find it straightforward to opt into low cost, diversely invested funds, and that they have an easy way to manage their funds in retirement, possibly by being allowed to purchase government-provided annuities.

### ***KiwiSaver general design features***

SWG would like to see consideration of the following changes to the general design features of KiwiSaver to enhance participation and better target incentives:

*Automatic enrolment of all employees aged 18 and over who are currently not members, with the ability to opt out within 2-8 weeks.*

Rationale: Increase participation. This is over and above maintaining the current auto-enrolment arrangements. About 28% of non-KiwiSavers said in Colmar Brunton's "KiwiSaver Evaluation: Survey of Individuals" in July 2010 that they haven't joined because they haven't got round to it. Auto-enrolment would also catch others who say they don't know enough about KiwiSaver to join, as they would be prompted to learn more. Furthermore, it would be reasonable to assume that non-members are less likely than current members to be people who simply divert savings from elsewhere to KiwiSaver, as those people would have joined already. It's very easy for them to participate. The new joiners are more likely to reduce spending to be in KiwiSaver – which will boost total savings.

*Kick-start payments should be drip-fed (i.e., credited in \$200 amounts annually for 5 years) and be contingent on ongoing contributions.*

Rationale: If all employees over 18 who are not currently members of KiwiSaver are auto-enrolled (with the right to subsequently opt out) the SWG recognises that a large influx of new members would produce an immediate expense for government if the kick-start contribution of \$1000 was paid out as a lump sum. It is recommended, therefore, that kick-start payments for all new members be spread over a number of years e.g., as 5 annual payments of \$200. In addition, this may assist in fostering a saving habit by rewarding members for making ongoing contributions to KiwiSaver. In particular, it may encourage those under 18, and therefore not subject to the 2% employee contribution, to make ongoing contributions to their KiwiSaver accounts. It may also discourage employed KiwiSaver members from taking a contributions holiday after one year of membership.

*The minimum employee contribution should remain at 2% of earnings; and the government should consider increasing the default contribution rate to 4%, with the ability to opt down to 2%.*

Rationale: The minimum level of contributions from employees should stay at 2% of income, with the focus continuing to be on encouraging ongoing participation in the scheme, including participation by employees who are currently on relatively low incomes. However, the default rate does influence people's behaviour. The vast majority of members who joined when the default contribution rate was

4% did not change their rate when the minimum rate was reduced to 2%. Moreover, the majority of those who joined after the default rate was reduced to 2% have not elected a higher rate. Thus, the government may want to consider increasing the default contribution rate to 4%, but with the ability to opt down to 2%

*Applying employer superannuation contribution tax rate to all of employers' contributions to KiwiSaver to end the bias towards higher income earners arising from the tax concession to employers.*

Rationale: Consider consistently taxing all employer contributions to KiwiSaver. Currently, the first 2% of employer contributions to KiwiSaver are not subject to tax, whereas employer contributions over 2% (and all employer contributions to other superannuation schemes) are taxed at rates approaching employees' marginal rates under the employer superannuation contribution tax regime. This does not seem equitable – providing greater advantages to contributors on higher incomes. Also, being a hidden subsidy, it is not the most effective way for the Government to incentivise KiwiSaver.

*Employers should not be able to pay out their KiwiSaver contributions irrespective of whether employees join KiwiSaver.*

Rationale: It is a concern of the SWG that the positive incentive created by the employer contribution is eroded by businesses that pay employees on a total remuneration basis (i.e., the employer pays the same gross salary irrespective of whether an employee joins KiwiSaver). In these cases the only non-government financial incentive to join KiwiSaver is the tax break on the 2% of earnings that the employer contributes (and if our previous recommendation on employer superannuation contribution tax is implemented, even this incentive will disappear).

We believe that serious investigation needs to be made as to the implications of this “packaging” of KiwiSaver. Intuitively, it would seem that if such packaging was outlawed there would be a significantly greater incentive to join, as joining would deliver an effective 2% salary increase for those in the scheme.

*Reduce the starting age of the member tax credit, auto-enrolment and compulsory employer contributions from 18 to 16.*

Rationale: Increase participation, and encourage discussion about KiwiSaver in schools. Also, it seems fair that people who are old enough to leave school and become employees are able to participate in all KiwiSaver benefits. However, it lifts the cost of employment a little and may have some negative impact on youth employment levels.

*Consider relaxing withdrawal rules to permit partial withdrawal earlier than NZ Superannuation eligibility age for those for whom the eligibility age is inappropriate or unsuitable.*

Rationale: Increase participation. Of particular interest to people involved in physical work all their lives and who are thus more likely to have to retire before 65, and also to Maori, people with disabilities, or other groups with shorter than average life expectancies. This would also encourage people to save extra in KiwiSaver, knowing they could withdraw it if needed. However, the design would need careful consideration.

*Support/encourage transparency and comparability of fees and performance, with KiwiSaver providers producing a regular report, in simple language, to each member showing: the member's opening amount, contributions, earnings (including as a rate of return), fees, and final amount.*

Rationale: The Group supports the move by the Ministry of Economic Development to establish reporting standards for fees and returns in KiwiSaver funds. The SWG notes the need to keep things understandable to members. KiwiSaver providers should be required to produce a regular report, in simple language, to each member showing: the member's opening amount, contributions, earnings, fees, and final amount.

There are two major disincentives facing people who wish to save in non-housing assets: the perception of poor rates of return provided by the funds management industry, and difficulty in understanding what exactly those returns are. The SWG believes that it is important that all investment vehicles report regularly back to investors in a transparent and easily understood manner. In particular, it is imperative that investors understand the total fees and any other costs applying to their investment and the impact that these are having on their returns. The bottom line is that investors must know what their actual return on funds invested is after tax, fees, and costs are deducted. Moreover, any comparatives that asset managers produce must show such net returns that the investor has made. It is inappropriate for asset managers to compare the returns of funds invested (pre tax and fees) against any benchmark as this provides the investor misleading information upon which to make investment decisions. Hopefully, changes of this type would not only improve clarity for the investor but also create heightened competition amongst asset managers.

Note that this improved level of disclosure should be applied to all funds under management, not just those associated with KiwiSaver.

***Other design changes that Government may want to consider:***

The SWG identified a number of ideas that might also enhance participation and better target incentives, but it has not had the time to investigate them sufficiently to make recommendations. These are noted below and the SWG considers that these should all be considered.

*Auto-enrolling self-employed and non-employees aged 18 and over, and possibly also younger people, who are not currently in the scheme, with the ability to opt out within 2-8 weeks.*

Rationale: Increase participation. This should be left until after the auto-enrolment of employees to avoid additional upfront fiscal costs of the kick-start.

*Consider removing or reducing the government-matched contribution for those aged over 40, or for those on higher incomes.*

Rationale: Better targeting of incentives to those on lower incomes

*Permit self-managed funds.*

Rationale: Increase participation. Design would need careful consideration – learning from the Australian experience.

*Increase the rate of the member tax credit to \$2 for every \$1 contributed – either with no change to the current maximum annual credit limit, or in conjunction with a reduction in the current limit.*

Rationale: Better target incentives to give greater encouragement to those on lower incomes. Note, though that this is likely to reduce KiwiSaver investment by the self-employed and non-employees who contribute only enough to receive the maximum tax credit.

#### ***Default Scheme operational structure: cost/fees and fit-for-purpose***

The SWG considers there is merit in reviewing the current operational structure of the KiwiSaver default schemes, with a view to:

- Reducing providers' costs – leading to reduced fees and hence increased returns for investors.
- Improving the appropriateness of the investments to better fit with each investor's situation or preferences.
- Reducing the current high level of switching between default funds, to give providers more certainty.

We address each of these in turn.

Our recommendations on these points are broadly consistent with international reviews of mandatory or government subsidised retirement saving schemes (e.g., Barr and Diamond (2008)). These reviews consistently emphasise that the overall quantity of retirement saving can be significantly increased by people investing in low cost, diversified schemes, and that low fees are primarily achieved when providers have large scale.

#### ***Reducing costs, fees and expenses and increasing returns – by using a single default scheme***

At present, anybody becoming a member of KiwiSaver who does not specify which scheme they want to belong to is systematically processed to become a member of one of the six default schemes. As at 30 June 2010, 29% of KiwiSaver members were default allocated. That member is then free to shift membership between default schemes or to non-default schemes. Each default scheme has responsibility for communicating/reporting directly to each of its members.

The SWG is concerned that structuring the default aspect of KiwiSaver in this way is leaving untapped potential for members to be better off through accessing lower fees (and higher returns as a consequence), and providing them with investment exposures more likely to be better tailored to their individual circumstances. The SWG is not criticising providers under the current default structure, but suggests that changing the structure is likely to enable costs overall to be reduced and default investment portfolios rationalised.

It is generally accepted in the funds management industry that the larger the scheme and the simpler the investment mandate, the cheaper the scheme is to run per dollar invested. This is because the scheme is able to involve fewer intermediaries in investing in assets, and may be large enough to invest directly. Potential cost savings also apply the larger the scheme's average investor balance is. A \$50 million scheme with only 1,000 members is likely to be cheaper to run than the same sized scheme with 10,000 members.

The SWG estimates that the economies of scale that could be achieved by aggregating the current 6 default schemes into one, together with that scheme making more use of Inland Revenue as a means of communicating with members, there is a potential for the scheme's costs/fees to be closer to wholesale scheme than retail scheme levels. Those lower costs/fees would translate into a material increase in member returns over time (with the potential for default-member balances being up to 6% higher in 20 years).

Using fee and expense estimates underpinning the Retirement Commission's KiwiSaver fee calculator on its website, [www.sorted.org.nz](http://www.sorted.org.nz), and also figures and projections from Treasury's NZ Superannuation Fund contribution rate model, fee and expense charges averaged across all KiwiSaver schemes are about 0.83% of assets plus an average expense charge of \$2.55 per member per month. Combining both figures, the total industry management and expense ratio (MER, defined as total expenses/fees as a percentage of total assets), is 1.46%.

As time goes on, the MER for the current structure would be expected to decline as individual member account balances grow in size and the per-member expense charges become smaller in relation to the fees and expenses charged as a proportion of assets. For example, a fee of 0.83% of assets plus \$2.55 per month on a balance of \$5,000 is \$72.10 a year, or 1.44%. But on a balance of \$100,000 it is \$860.60, or 0.86%.

Nonetheless, the MER will still be considerably higher than, say 0.40% on a large wholesale scheme. That means the current KiwiSaver retail structure costs two or three times more than what might be achieved by a single wholesale structure run directly from IRD's database, i.e., an additional 0.5% to 1.0% of assets each year.

Applying the fee estimates given above to 29% (the current default proportion) of KiwiSaver assets and contributions, total KiwiSaver funds in 20 years could be expected to be \$2.5 billion greater under a wholesale structure, equivalent to 0.5% of GDP.

Given the magnitude of the potential benefit to members, and the corresponding reduction in NFL, the Group recommends that consideration be given to replacing the current default arrangement with a single scheme, managed independently of the government (e.g., in a manner similar to the NZ Superannuation Fund), with Inland Revenue taking more of a role in being the interface between the scheme and its members.

Detailed consideration of this should commence immediately in order to effect any change at the time of the next scheduled review of the status of default providers in 2014. To assist providers transitioning to a single default scheme structure, consideration could also be given to allocating the investment mandate for the new default scheme evenly amongst the incumbent default providers for a specified period of time.

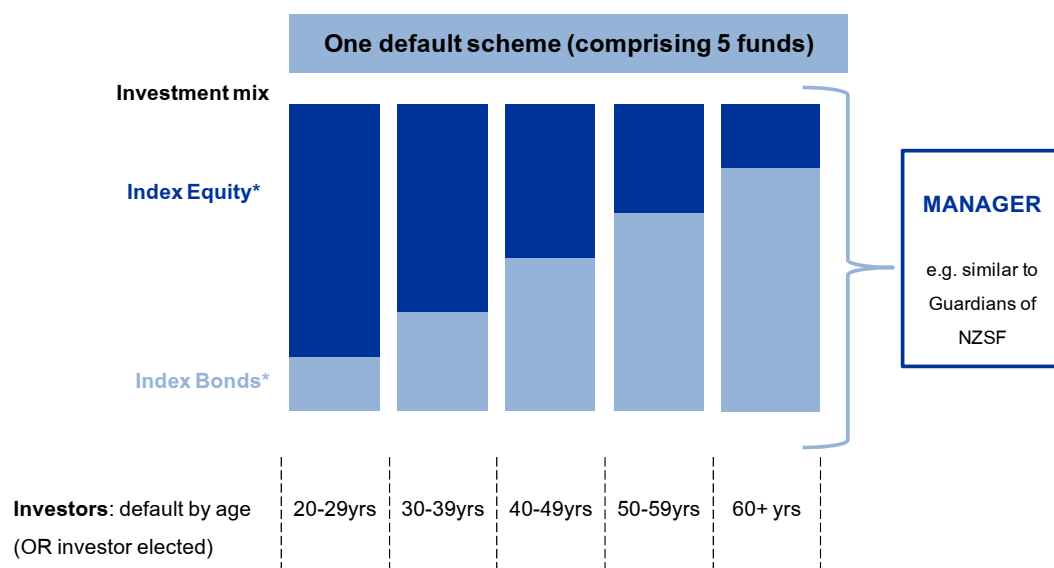
#### *Rationalise default fund investments*

The Group is concerned that many investors in default schemes do not have an asset mix/exposure that is appropriate to their circumstances. The current default schemes all hold only about 20% in growth assets – mainly shares but sometimes also some property – and the rest in fixed interest investments and cash in a one-size-fits-all approach to members. This means younger members (with the longest period until their retirement) are likely to be under-invested in equities compared to what an advisor would recommend to them – unless they plan to withdraw money in the near future to buy a first home.

The SWG considers that the default scheme should offer members a limited and simple range of investment mixes that recognise their basic circumstances (leaving the non-default schemes to offer more sophisticated approaches).

Specifically, the SWG recommends the single default scheme should only invest passively in equities and bonds, offer a limited number (say five) basic combinations of such investments (each combination being a fund within the scheme). Members could select one mix or default to an age-related transition programme through the different mixes (i.e., younger members would be placed in a fund more heavily weighted towards equities, and older members into one more heavily weighted towards bonds). Figure 7.4 provides an illustration this recommendation.

**Figure 7.4:** Example of KiwiSaver with one default scheme and age-appropriate funds



\* Investment managed by 5-7 private sector managers

The current high churn rate may be a contributing factor to schemes having to hold more liquid assets than might normally be expected of non-KiwiSaver superannuation-type schemes (where there is limited opportunity to withdraw early or switch schemes). The SWG suggests that consideration be given to introducing rules aimed at reducing members' ability to switch at will between default schemes. For example, impose a time constraint on the ability of a member to switch to another default fund (e.g., allow within one year of joining, and then only after five years of membership, or allow the scheme to impose an early exit fee).

*Default scheme to provide a further fund comprising only government securities*

The SWG notes that about 21% of people who have not joined KiwiSaver say that one of the reasons is that a “lack of certainty about how secure their money is/no guarantees”, according to Colmar Brunton’s (2010) “KiwiSaver Evaluation: Survey of Individuals”. The SWG considers that there may be a reluctance for some people to invest in KiwiSaver unless there is a government guarantee on their contributions. The Group considers that at least some of these potential investors may be attracted to having the ability to select a different fund within the default scheme that would invest their money solely in short-term government securities – which are less volatile than longer-term securities. While this may not be the ideal asset profile from a retirement perspective, it at least provides a potential stepping stone into KiwiSaver for a significant number of people into a more appropriate default fund or non-default scheme.

### 7.3.5 Annuities

#### **Box 8: Why is the annuities market underdeveloped?**

New Zealand is not alone in having an underdeveloped annuities market. There are supply and demand reasons for the general lack of availability of annuities:

Supply constraints:

- *Pricing – The relatively small number of people who buy annuities and the lack of actuarial data on annuitants' life expectancy makes pricing difficult for providers. This is especially the case in a small country such as New Zealand. Furthermore, people interested in buying annuities do so because they are healthy and thus confident that they will receive the annuity for a long time (the adverse selection problem resulting in annuitants tending to live longer than the population in general).*
- *Matching assets – Annuity providers have difficulty finding suitable assets, such as long-term government bonds, to match the structure of their annuity liabilities and there are few instruments enabling them to hedge longevity risk.*

Demand constraints

- *Complexity of products – the attractiveness of annuities is reduced by the risk of inflation eroding fixed annuity payments, their illiquidity and often a lack of transparency in their pricing.*
- *Lack of flexibility – there is generally little room for annuities to change when circumstances change.*
- *Lack of understanding – many consumers lack understanding of the nature of annuity products.*
- *Other pension schemes and social assistance – the provision of inflation-protected, wage-adjusted pensions such as NZ Superannuation as well as social assistance, such as health care, is likely to reduce the demand for annuities. In effect, New Zealanders already receive an annuity income in the form of NZ Superannuation.*
- *Taxation – the tax treatment of annuities is a potential impediment to the uptake of annuities.<sup>26</sup>*

In the course of its discussions, the SWG identified an area of concern relating to KiwiSaver members and others retiring with considerable lump sums, and limited options available to readily convert some or all of such payments into a future income stream. New Zealanders do enjoy a degree of annuitised income in the form of NZ Superannuation. However, we are talking here about a secure income stream in addition to NZ Superannuation.

As it stands, most investors receiving large lump sums early in their retirement (as will increasingly be the case for members of KiwiSaver) will face investment decisions involving larger sums than they have ever seen in their lives. These are complicated decisions on how to best manage their retirement nest-eggs. The SWG is not only concerned with the limited options but also the consequent risk that many will not be able to manage their retirement nest-eggs in their best interests, let alone recognise their vulnerability to bad advice, and the temptation to partly solve the problem by going on a spending spree.

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<sup>26</sup> Investment income is taxed at the company tax rate, which is higher than the purchaser's marginal tax rate for individuals earning less than \$48,000.



The SWG considers that the situation would be improved if investors receiving such amounts at least had the option of converting some or all of their KiwiSaver payout into future income. That is something that the government should consider providing – whether in the form of an annuity, or providing the ability for members to buy an increased entitlement to NZ Superannuation. The SWG notes that while the latter offers a convenient delivery mechanism in a well-understood context, it would be necessary for any extra NZ Superannuation entitlements acquired in this way to be contractually based (and thus immune from any changes that future governments may make to the underlying standard NZ Superannuation entitlements). The SWG also recommends that consideration be given to whether members of KiwiSaver should, in time, be *required* to take some portion of their withdrawal in the form of such an annuity/NZ Superannuation increase (rather than as a lump sum).

Any government involvement should be on a full cost recovery basis, and might involve encouraging private sector annuity providers.

While the lack of a material annuities market in New Zealand is a current shortcoming for anyone receiving lump sum retirement payments from their superannuation schemes, the SWG recognises that in relation to KiwiSaver this issue does not become acute for another five or so years – as it will not be until then that many will be receiving material amounts upon their retirement. However it recommends that planning commence now. The first retirement withdrawals from KiwiSaver will take place in mid-2012, and at least a small proportion of those members will have sizable lump sums.

### 7.3.6 Other long-term saving

The SWG has a general concern with the lack of long-term savings opportunities for New Zealanders (outside of locked-in retirement-based schemes). One aspect of this is whether national saving can be increased over time by extending KiwiSaver-style incentives to saving schemes where contributions are locked-in for reasonably long periods, say, a minimum of 10 years (which would be attractive to those younger investors who might be deterred by having their savings locked-in until retirement). Another aspect is providing more appropriate choices for those who are already retired and looking for options to invest lump-sum receipts.

Aside from potentially extending the KiwiSaver incentives, the SWG would like to see the government consider facilitating long-term investment by issuing inflation-indexed bonds as well as annuities, as suggested above.

### 7.3.7 Declining home ownership

Paying off a mortgage has long been a way for New Zealand households to save. Repayments of principal reduce debt, and hence are a component of household saving. Most owner-occupiers with mortgages would be repaying the principal as part of their regular payments to the mortgage lender.

However, it seems that this avenue of saving is on the decline, owing to a decline in home ownership. The decline in ownership has been steady since 1991, even after adjusting for the increasing use of family trusts. In 1991, 73.8% of households owned their own homes according to the census in that year. But by June 2010 the ownership rate was down at 64.8%, according to the Household Economic Survey. Explaining this decline is not straightforward. But the main factor behind this is likely to be the long-term rise in the level of house prices relative to household disposable income. Influences on the rise in this ratio include: greater interest by small investors in owning rental property; rises in land prices; financial deregulation, which has increased access to housing finance to residential landlords; high immigration; and the tax-favoured treatment of housing.

Most housing analysts expect home ownership to keep declining in New Zealand (see for example DTZ New Zealand (2007)), which will mean that an even smaller proportion of the population – and especially people in younger age groups – will have the opportunity of using home ownership as a saving strategy.

This highlights the need to ensure that other suitable forms of investment – like well-managed superannuation schemes – are available as vehicles for long-term saving.

## 7.4 The role of business in the national saving debate

As previously discussed, the role of the SWG is to assess how New Zealand might increase its national saving rate. National saving is made up of three components: household, government and business. Much of the attention in this report is focussed on household and government sector issues, but it would be remiss to overlook the role of business in the savings process.

It is true that the business sector is owned by either households or government so in many ways a significant number of the issues to do with saving have been addressed elsewhere. However, it is equally important to recognise that, in the simplest sense, business saving is based on business profits. Therefore the more that can be done to enable businesses to work efficiently, the greater will be the funds available for distribution to the owners and, hence, the higher might be national saving. As businesses losses directly reduce business saving, anything that reduces that size of losses will improve saving.

Moreover, in assessing the role of business in the savings debate one must also remember that the saving issue can be summarised in the national accounts identity. That is, saving minus investment (the saving balance) equals exports minus imports less net international payments (the current account balance). The primary focus of this exercise has been the saving part of the equation but equally it is important to assess:

- The quantity and quality of investment in the economy.
- The extent by which we might be able to encourage exports.
- The policy mix that might discourage imports.

These are all business sector issues that are critical to the debate.

There have already been numerous papers written over the years about what can be done to enhance business profitability largely concentrating on measures that impact productivity. We do not wish to revisit these in depth, but rather list the more obvious things that need to be done in this space. We suggest that Government should:

- Take a strategic approach to improving competitiveness, in terms of the impact of the design and management of its policies.
- Ensure that labour markets are as flexible as possible.
- Reduce barriers to entry to the labour market such as high marginal tax rates and relatively high welfare payments.

- Put significant focus on ensuring that the education system is well-designed to create work-ready high school leavers and university graduates.
- Ensure that the nation has the necessary infrastructure in place.
- Reduce business compliance costs.
- Ensure that the Resource Management Act is working efficiently.
- Streamline and clarify the consenting process.
- Ensure competition regulation is appropriate.
- Develop a population policy.
- Make sure that the government does not crowd out the private sector.
- Ensure that state-owned businesses are operating as efficiently as possible and, if necessary, look to heightened levels of private provision of services.
- Remove barriers to trade and sustain open capital markets.

There is one other significant issue to consider: the structure of the New Zealand business sector. We have no firm conclusion on this matter but wonder whether the dominance of small to medium-size enterprises (SMEs) in New Zealand means that investment (and saving) activity is less efficient than it could be. Does this also mean that New Zealand's business structure is less able to create the growth in exports that the economy desires, as small businesses clearly have greater difficulty in penetrating global markets? To put this issue in context, as at February 2009 there were only 2,143 enterprises in New Zealand employing over 100 people. We believe structural issues warrant further investigation.

#### *The quantity vs. quality of investment*

There is little evidence that the quantity of investment in New Zealand is out of line with international norms. This begs the question as to the efficiency of that investment. Many of the factors above will help raise the returns on investment. However, in addition, one has to question whether the New Zealand tax system has created an environment where people have been enticed into over-investing in property assets – both residential and rural – that ultimately have a low return. A reassessment of this would be highly desirable.

Another question is whether the ability of businesses to borrow using housing as collateral has meant that a lot of investment decisions have been made based on insufficiently high hurdle rates, meaning that projects have been embarked upon that should not have. This may in part explain the proliferation of small businesses in New Zealand, the high failure rate and, as a corollary, a general unwillingness (or inability) to pool investment funds to create businesses of scale.

Furthermore, more work needs to be done to assess why New Zealand businesses pay out high levels of dividends rather than using these funds for expansion purposes.

#### *Export policy*

Again, the adoption of profit-enhancing policy will, by definition, help exporters. Anything that can lower the cost structure of an exporting business enhances its position of global competitiveness.

We recognise that in the export space the government will have a significant role to play, now, and in the future, not only with market entry, trade barriers and the like, but also in regard to its management of climate change, emissions trading and general environmental concerns and the impact of these on competitiveness. In addition, there is an urgent need to clarify the likely future national position on water rights and potentially the trading thereof, to the extent that this will be of great significance for a country whose export earnings are dominated by water-affected production. Electricity is another area of concern, given its importance in primary resource processing.

#### *Import policy*

On the import front, the “attack” on imports must come by way of raising the competitiveness of domestic producers and encouraging New Zealanders to reduce consumption in order to take pressure off interest rates and the exchange rate and release resources for import substitution as well as exports.

In summary, the SWG emphasises that the role, both direct and indirect, of the business sector should not be underestimated.

## 7.5 Financial education

#### *How financial literacy affects savings levels*

New Zealanders tend to either take too little risk or too much risk when saving. Some put long-term money into bank deposits, and are therefore likely to receive lower long-term returns than if they invested in, say, diversified local and international shares or property – particularly if they use lower-fee investment options. At the other extreme, many people have invested in poorly run finance companies or heavily geared property – or in the 1980s geared shares – and ended up losing much of their savings. A lack of understanding of diversification has led to heavy losses for people who have invested in one or a few shares or other securities.

If people were more financially literate, they would be able to assess the appropriate risk level for their situation and personality, and invest accordingly. With less underperformance on the one hand, and fewer irretrievable losses on the other hand, New Zealanders’ total savings would increase. People’s welfare – and attitudes to saving and investing – would also be improved. Similarly, higher financial literacy would lead to better debt management and faster loan repayment, which would also help to boost savings totals.

The SWG is particularly concerned that, despite steps in the right direction, many school children are still not studying financial literacy. Educating children and young people not only ensures a more financially literate adult population in future, but these young people sometimes, in turn, educate their families. We would like to see speedy action in this area.

#### *The current situation*

New Zealand does not have a formal government policy on financial education as yet, nor a government department responsible for financial education policy or delivery. However, many agencies, including the Retirement Commission, Reserve Bank, Securities Commission, Ministry of Economic Development, Ministry of Social Development, Inland Revenue, Consumer Affairs and the Ministry of Education, are involved in financial literacy programmes.

Arguably, that's too many agencies. Partly because of this, Commerce Minister Simon Power has asked Ministry of Economic Development officials to do a stock-take on how financial literacy services are delivered in New Zealand. That stock-take is in progress. It will include consideration of the roles of the Retirement Commission and the new Financial Markets Authority in promoting financial literacy.

It is clear the Retirement Commission, in particular, is doing a good job at educating people about everyday financial literacy, but more effective coordination among the agencies might allow for greater leverage from the Government's efforts. In addition, more could be done on education about investing and people's ability to compare investment products. The Ministry of Economic Development is working on improving disclosure about investment products, which will help the latter.

Meanwhile, the National Strategy for Financial Literacy<sup>27</sup> has created a five-year action plan that will be reviewed every six months and updated every five years.<sup>28</sup> The focus of the strategy is on:

- 1 Developing the quality of financial education.
- 2 Extending its delivery.
- 3 Sharing what works.
- 4 Working together.

#### *Financial literacy and KiwiSaver*

Regardless of whether KiwiSaver is boosting savings directly, it seems to be helping financial literacy. This in turn should lead to more saving in "under-saving" households, and to better financial management generally. Some of the ways KiwiSaver is boosting financial literacy are:

- Skin in the game. Before KiwiSaver, a large majority of New Zealanders – particularly young adults – had no financial assets beyond bank deposits. Now 51% of households have at least one KiwiSaver member, according to Inland Revenue's KiwiSaver Evaluation for July 2009-June 2010. This means many more households have at least some financial assets. Holding those assets must make people take more interest in learning about bonds, shares etc. – especially as their holdings get bigger.

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<sup>27</sup> The Advisory Group of the National Strategy for Financial Literacy is made up of: Alan Bollard (Governor, Reserve Bank), Sean Carroll, Chair (Chair, Investment Savings and Insurance Association), Diana Crossan (Retirement Commissioner), Jane Diplock (Chair, Securities Commission), Manuka Henare (Associate Dean Maori and Pacific Development/Director Mira Szászy Research Centre, University of Auckland Business School) and Karen Sewell (Secretary for Education).

<sup>28</sup> The strategy is available at [www.financialliteracy.org.nz](http://www.financialliteracy.org.nz). For more information on recent developments see New Zealand Network for Financial Literacy (2011).

- Getting their act together. The evaluation says the scheme has “increased the value [people] place on financial planning.” It also says 38% of KiwiSavers with a mortgage or other debt when they joined have maintained their debt repayment, 21% *increased* their repayment and only 10% stopped or reduced their repayment. This is contrary to what might be expected. It suggests a psychological effect: people may feel more in control of their finances after joining KiwiSaver and therefore put more effort into other financial issues.
- Childhood habits. About 25-30% of New Zealand children have joined KiwiSaver. More than half their parents said they enrolled their children to teach them long-term saving habits and help them save for future goals like home ownership. This must boost the financial literacy of at least some of the children and parents.

However, we can do better. About 40% of KiwiSaver members don't know what sort of fund (conservative or growth etc) they are invested in, and 15% can't name their provider.

There are also numerous problems with information about KiwiSaver, particularly about fees and performance.

### *Recommendations*

Financial literacy is clearly important to New Zealanders' wellbeing. It enhances people's ability to manage their finances and to save optimally.

The SWG:

- Encourages all agencies to work together to improve the quality, quantity and evaluation of their initiatives. It is particularly interested in education about investing as opposed to everyday money management. Some examples of topics the SWG would like to see covered are: the relationship between risk and return; diversification; compounding returns; short-term versus long-term investing; the effect of fees on returns; signs of fraud; debt management; understanding the effects of gearing; and understanding how to manage savings in retirement.
- Endorses the recommendations of the Young Enterprise Trust to:
  - Create a Ministry of Education approved curriculum statement on financial literacy for years 1-13.
  - Create sufficient Achievement Standards for financial education for NCEA levels 1-3.
  - Ensure that these Achievement Standards are on the approved subject list for university.
  - Review the recommendations of the Capital Market Development Taskforce that investment literacy concepts are incorporated into the school curriculum.

- Supports the work being done by the Ministry of Economic Development on the regulation of periodic reporting for retail KiwiSaver schemes. Both members and non-members of KiwiSaver need access to reliable, easily compared information on total fees and expenses and on returns net of all expenses and tax. Such information should be readily available on a government-run website that enables easy comparison of similar investments. It is also important that information about returns should include clear warnings that past returns are no guide to future returns.
- Suggests that the government put considerable resources into educating New Zealanders about recent and proposed changes to regulations, such as the setting up of the Financial Markets Authority, adviser regulation, disputes resolution schemes, etc. A major aim of these changes is to increase investor confidence, so it is clearly important that people understand the new institutions and services and how to use them.

### *Student loans and saving habits*

The SWG has some concerns about the messages being sent to young people as a result of the interest-free nature of the Student Loan scheme.

Under the scheme, students pay no interest while studying. And, as long as they remain in New Zealand, they continue to pay no interest after graduation. With compulsory repayments set at 10% of every dollar earned above a threshold (currently \$19,084 a year), students can take many years to repay their loans, and some may never repay them.

The Government has recently taken two steps that will encourage faster repayment of student loans:

- **Excess repayment bonus.** If a borrower makes voluntary repayments – above their compulsory repayments – of \$500 or more in a 1 April to 31 March year, the government will reduce their loan balance by 10% of the excess repayment.
- **Fees.** The government has proposed a \$40 annual administration fee for student loans held by Inland Revenue. The fee will be first charged from 31 March 2012, for the 2011/12 tax year. (In addition, the existing establishment fee charged by the Ministry of Social Development for each new loan account will increase from \$50 to \$60 from 1 January 2011. No borrower will be charged a fee from both agencies in the same year.)

Despite these developments, financially savvy people “game the system.” They might, for instance, calculate that they will still benefit from saving elsewhere and delaying voluntary loan repayments until they get to the point at which their compulsory repayments would pay the loan off in approximately three years. At that stage, they make use of the repayment bonus to repay the loan in full.

While the SWG does not support charging interest while students are studying, it is concerned that the system encourages young people to think it’s fine to have a large debt – other than a mortgage. Anecdotal evidence suggests this can lead to a blasé attitude to debt, with former students unconcerned if they run up large credit card bills. Such an attitude could lead to a lifelong habit of being in high-interest debt rather than saving.

The SWG recommends that the Government considers charging low interest on student loans after a student has graduated. Young people would learn debt management skills whilst repaying those loans.

## 8 Measurement issues

Measuring saving and net wealth is not a straight-forward exercise and is fraught with complex statistical issues. As discussed in Section 2.2, the SWG considers that the official national accounts summary statistics for national, government and private saving are reasonably robust, and are consistent with the related investment and external current account series. A problem – if there is a problem – lies with the subsequent split of private saving into its household and business components, even though the recent release of official saving sector statistics has reduced this source of uncertainty.<sup>29</sup>

There has been considerable debate about the level and trend of household saving. On the one hand, the official national accounts flow measure of household saving indicates, until recently, a declining and negative household saving rate; on the other, a number of recent studies using household survey data<sup>30</sup> find strongly rising levels of household wealth and in some cases have interpreted this as evidence of the exact opposite, namely a non-declining and positive saving rate. While definitional and data issues cloud a true comparison between the series, the major difference is due to asset revaluations (e.g., rising land and dwelling values). But even when attempts are made to remove the effect of revaluations, differences in estimates of household saving remain.

The SWG's prime focus has been national saving. While we necessarily discuss sector saving issues, we do so largely within a national saving context. As such, we do not attempt to address the conflicting household saving measures. We do, however, recognise this as an important issue that requires resolution. This is not some esoteric debate with minor consequences – on the contrary. Major public policy decisions with significant fiscal implications have been made, and will continue to be made, on the basis of evidence on household saving and retirement income adequacy.

This household saving measurement problem has been highlighted by the Retirement Commissioner and was also commented on in many of the submissions received. The recently released 2010 Review of Retirement Income Policy discusses household saving data needs and, in particular, notes:

“First, the current difficulty in reconciling available stock and flow saving data makes it challenging to draw firm conclusions about whether New Zealanders have a saving problem or in fact are saving adequately for their retirement. Greater reliability is essential for future policy making.

“Secondly, the outdated nature of current sources means it is not possible to assess recent trends and changes in saving behaviour. . . . this Review and other policy processes are drawing on outdated data. . . . Policy makers will require more timely data in future.” (Retirement Commission 2010)

The Retirement Commission report notes that Statistics NZ has recently reviewed its standard-of-living statistics, which include statistics on income, saving and wealth. Its review made a number of recommendations which are important for future understanding of the dynamics and trends in saving,

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<sup>29</sup> Statistics New Zealand (2010a).

<sup>30</sup> Refer, for example, to: Claus and Scobie (2002), Gibson and Scobie (2001), Le, Scobie *et al* (2009), Scobie and Henderson (2009) and Le, Gibson *et al* (2010).



wealth and retirement preparation.<sup>31</sup> The Retirement Commission report supported the Statistics NZ proposals and recommended that they be actioned in a timely way.<sup>32</sup>

While the Retirement Commission report has made this recommendation within a retirement-saving context, the statistics identified have wider application and the recommendation is fully endorsed by the SWG.

The need for improved saving and wealth data is not confined to the household sector. While the summary statistics on national and sector saving are now available, the absence of official sector financial accounts and balance sheets inhibits a richer analysis of the types of economic problems that have been discussed in this report. A better understanding of the connections between the levels and types of investment, their internal and external (inter-sectoral) funding sources and the resulting balance sheet positions is needed.

More generally, the work of the SWG has been made more difficult by a lack of timely economic statistics on sector saving and net wealth. While progress has been made with the release of official institutional sector accounts, these tell only part of the story.<sup>33</sup> As noted above, there is a need for institutional financial accounts and balance sheets to better understand the nature of the economic issues under review. We note that such statistics are now regarded as a standard statistical output in other OECD countries and, in this regard, New Zealand stands out as an outlier. This situation would appear to be the inevitable consequence of successive governments' under-investment in providing and maintaining an adequate range of quality economic statistics. The SWG strongly recommends that these deficiencies be addressed.

### **Specific recommendations:**

#### **1 Macroeconomic statistics**

That Statistics NZ:

- a Improve the timeliness and periodicity of the recently released institutional sector accounts. The goal should be to release the annual accounts within six months of the end of the financial year.

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<sup>31</sup> The relevant Statistics NZ recommendations are: (i) Statistics NZ to undertake a comparison of micro and macro measures of income and wealth with a view to better integrating these and a goal to work towards a full set of national accounts; (ii) Statistics NZ to confirm information need in relation to household net worth and investigate options for producing regular statistics; and (iii) Statistics NZ to work with users to prioritise needs for longitudinal data and investigate options for meeting these needs, including the potential role for future longitudinal surveys. Recommendations (ii) and (iii) are in response to the need for an update to the 2001 Household Saving Survey which provided cross-sectional data on household assets and liabilities, and for a replacement for the longitudinal survey SoFIE which has now ceased.

<sup>32</sup> Recommendation 5.5. "That the recommendations relating to saving and wealth statistics from Statistics NZ's review of economic living standards be actioned in a timely way and in conjunction with key data users." (Retirement Commission 2010, p107)

<sup>33</sup> The institutional sector accounts include only the income and outlay account and the capital account.

- b Develop the full sequence of accounts for each institutional sector, as set out in the international *System of National Accounts* manual. This involves developing financial accounts, balance sheets and reconciliation accounts, in addition to the existing income and outlay and capital accounts currently produced. The production of these accounts with a quarterly frequency is strongly recommended.<sup>34</sup>
- c Continue to research macro and micro household saving measures to enable a fuller reconciliation between them.

## 2 Household sector statistics

Household sector. The SWG endorses Recommendation 5.5 of the *2010 Review of Retirement Income Policy* and supports the relevant recommendations in the Statistics NZ Review of Standard of Living Statistics, namely:

- a Work be undertaken to better integrate the macro and micro measures of household saving.
- b Cross-sectional statistics on household net worth be regularly produced.
- c A new longitudinal survey be investigated now that the Survey of Family, Income and Employment (SoFIE) has ended.

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<sup>34</sup> The recent GFC has led to an international review of the adequacy of official statistics to provide the relevant and reliable information needed for timely economic analyses. What is emerging is a recommended list of key early warning indicators that include, inter alia, quarterly statistics on sector incomes, profits, saving and debt (levels and changes). The full sequence of quarterly institutional sector accounts proposed above would provide this data.

# Part 3: Additional reference material

## 9 Additional analysis

The numbers in brackets of the headings refer to sections in Part 2.

### 9.1 Understanding saving, wealth and debt (2.2)

#### *Summary*

New Zealand data on the amount of saving and wealth accumulation that has taken place in the last two decades are perplexing. On one hand, macroeconomic saving data clearly indicate that national saving rates are low by OECD standards, and have been low for an extended period of time. On the other hand, estimates of household wealth suggest average wealth levels are not particularly low – or, more accurately, average wealth-to-income levels are not particularly low, for the data are clear that New Zealanders have low incomes by OECD standards. There has been considerable debate in New Zealand as to which set of data better reflects the underlying situation.

The position of the SWG is that New Zealand saving rates *are* low by OECD standards, and that the economy would be better placed if they were higher and if assets were accumulated more rapidly. We agree with the careful analysis of the situation in the Reserve Bank of New Zealand submission, that saving rates need to be increased by 2% - 3% of GDP for New Zealand to reach OECD norms. These amounts may not seem large, but overseas experience suggests that increasing saving rates by this amount in the medium term is not simple.

It is possible to reconcile some of the differences between the macroeconomic saving data and the microeconomic wealth data. New Zealand has experienced very large asset price increases in the last two decades, which means wealth has increased much more quickly than assets have accumulated through saving. The SWG has not taken a view as to whether these price increases are sustainable, but suspects that they are not, and it is unlikely that such large increases will occur again in the near future. Since wealth accumulation depends on both the returns to savings, and the amount of saving (or more particularly, the extent households delay their spending), an increase in the saving rate is likely to be the most sustainable way to increase assets and wealth in the future.

#### *New Zealand's wealth and assets*

New Zealand's domestic assets refer to the quantity of investments located in this country, while New Zealand's wealth refers to the amount of real and financial assets located in New Zealand and around the world that are owned by New Zealanders. New Zealand domestic assets partially determine New Zealand *labour* incomes, as these depend on the amount of capital equipment that New Zealand workers have to work with. New Zealand wealth determines New Zealand *capital* incomes, which depend both on the amount of wealth owned and the amount these assets earn. The difference between New Zealanders' wealth and the stock of real assets located in New Zealand is the net

foreign liability position. According to Table 5 below, in 2010 the assets<sup>35</sup> located in New Zealand were worth \$574 billion (in current dollars). However, New Zealanders had incurred NFL of \$161 billion, and consequently New Zealand had net wealth of \$413 billion. Net wealth increased by 149% between 1992 and 2010, but the value of local assets increased by 163%. The difference is due to foreign investment. As foreign investment increases the amount of capital available to work with, and increases labour incomes, it is generally beneficial.

New Zealand's overall asset and liability position raises three questions:

- a Is the quantity and type of capital located in New Zealand adequate to generate high labour incomes?
- b Is the quantity and the type of wealth owned by New Zealanders adequate to generate high capital incomes?
- c Is the high net foreign liability position likely to cause economic problems?

There is some difficulty answering these questions with certainty, because of the poor quality of much of the data. Statistics New Zealand has made much useful progress improving the data in the last few years, but major gaps remain. Nonetheless, in broad terms the data suggest:

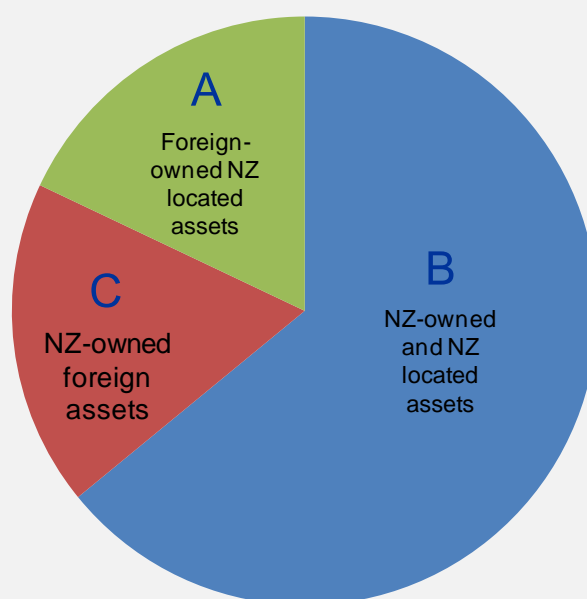
- a By OECD standards, there are relatively low quantities of capital located in New Zealand
- b By OECD standards, per capita wealth is relatively low, although the high value of land raises the ratio of wealth to income to levels similar to those in other countries, and
- c The high NFL position makes the New Zealand economy vulnerable to shocks.

If this diagnosis is correct – and we must stress the limitations of the data – the solution is to increase the rate at which domestically located assets and wealth are accumulated, without further increases in the net foreign liability position.

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<sup>35</sup> Table 5 does not provide a comprehensive balance sheet. Omitted real assets include land and other natural resources, cultivated assets such as livestock and timber and intangible assets such as patents and goodwill.

**Box 9: Schematic view of New Zealand's assets and wealth**



$A+B$  = New Zealand located assets

$B+C$  = New Zealand wealth

$C-A$  = New Zealand net foreign assets

$A-C$  = New Zealand net foreign liabilities.

The entire area represents all assets that New Zealand residents have an interest in – i.e., all assets either located in New Zealand or owned by New Zealand residents. Note that the areas do not represent the sizes of actual holdings. Each of A, B and C could be further divided into debt and equity claims. For example, the equity in one's house would be in B, but the mortgage on the house would probably be in A.

The challenge is to increase New Zealand's assets, regardless of whether they are New Zealand- or foreign-owned, or located here or overseas (i.e., increase  $A+B+C$ ). However, we must do so without increasing New Zealand's NFL ( $A-C$ ), which would increase the country's vulnerability.

There are two basic causes of low wealth accumulation. The first is inadequate saving, which can be caused by a variety of factors including low incomes and low saving rates and the investment requirements of a growing population. The second is poor asset choice – investment is made in the wrong classes of assets. Ultimately choosing the right assets is as important as choosing the right amount of saving, for savings that are wasted in unproductive investments improve neither the domestic asset position nor domestic wealth.

The SWG believes that wealth accumulation in New Zealand has been inadequate for reasons that reflect inadequate national saving rates, poor asset choices and demographic effects. This section presents the evidence supporting this contention. The evidence is not unambiguous, not only because of data problems, but because the links between saving levels and wealth levels are not straight forward.

*Saving, wealth and debt: a conceptual framework*

Any analysis of New Zealand's saving position is necessarily complex because saving data alone cannot indicate whether the amount of saving is adequate. The fundamental reason is that a particular saving rate is consistent with any number of wealth positions. At one level, this is as simple as

observing that if New Zealand had a zero national saving rate it would not be considered inadequate if its wealth were \$1,000 billion, whereas it would be problematic if wealth were only \$50 billion. At a more fundamental level, it is because a household's wealth levels depend on *when* it saves and *when* it spends as well as its average saving rate. A family that borrows \$15,000 for a trip to Europe, and spends three years repaying the loan will have the same average saving rate as a family that saves \$15,000 over three years and then has its trip, but over the three year period the first family has \$15,000 less wealth than the second family.

The same idea holds at the national level. As most people save when working and dissave in retirement, national wealth levels depend not only on the average saving rate but the saving rate amongst working-age people. A country where working-age people save a lot while working and spend their savings in retirement can have the same average saving rate as a society where working-age people save little while working, and eke out those lower savings through their retirement, but it will have much higher average wealth. Nobel prize-winning economist Franco Modigliani used this idea to demonstrate that the wealth level (and the average saving rate) of a society will depend not only on the saving rates of people in different stages of their lives, but the fraction of the society in each of these stages and the growth rate of the economy.

As New Zealand does not have particularly good estimates of saving rates by age, most of the literature has analysed national saving data in conjunction with asset and wealth data to provide the appropriate context. The dynamics of wealth accumulation make the analysis complicated, because a particular saving rate could be consistent with any level of wealth, but an increase in the saving rate will increase wealth, so long as the savings are invested appropriately. Consequently, even though data about savings levels cannot be used to make inferences about the adequacy of saving, it can be concluded that changes in saving will change wealth levels.

The link between NFL, saving and wealth is also complex. New Zealand could have high NFL – in New Zealand's case, high net debt levels. This may have happened for several reasons. New Zealanders may have borrowed to invest in productive local assets, or to buy highly-priced land (while the sellers have spent the proceeds), or they consume relatively early in life and accumulate little wealth. For a given level of NFL, real wealth will be greater if much of the debt has been used to invest in local productive assets, and smaller if much of the debt has been used to buy consumption items.

#### *Measuring saving flows: the macroeconomic framework*

At its simplest, saving is a flow concept and is measured as the difference between income and expenditure (or consumption). The measures of saving primarily used in this report are based on saving data from New Zealand's national accounts which conform closely to accepted international standards. They can be applied to national or sectoral saving. This flow measure provides an indication of the extent that wealth has been accumulated in a given period because different sectors or the nation as a whole has refrained from consuming their income.

Alternative saving measures are sometimes used in studies that examine household retirement income or wealth adequacy. These measures can be very useful, even if they do not align with national accounting definitions.

#### Box 10: Alternative saving measures

A number of alternative estimates of household saving have been made using either household survey unit record data or the RBNZ household balance sheet data.<sup>36</sup> Typically, the Household Expenditure Survey (HES) has been used to derive alternative estimates of saving rates by comparing consumption and income, and the Survey of Family, Income and Employment (SoFIE) has been used to measure saving by comparing changes in wealth over time. While the underlying purpose behind these studies is to further analyse household saving or income adequacy by age, income or wealth cohort, the average saving series they derive do not align with the national accounting series. All show higher levels of household saving, although the Reserve Bank estimate does show a similar falling trend. For many of these studies, the higher saving levels are due to adopting different definitions of saving, and the series are not comparable. However, in those studies that do attempt to move more closely to the national accounting saving concept, the higher rates remain.

The difficulty of reconciling macro-level saving data and micro (survey) level saving data is not unique to New Zealand. In most countries, micro-level survey data suggest saving rates are higher than those recorded using macroeconomic statistics. The reasons for this disparity are not fully understood, but most experts think the micro-level studies overstate saving levels, possibly because of the way intergenerational transfers of assets are recorded.<sup>37</sup>

Just as there are measurement issues in the national accounting series, so there are in the alternatives – indeed, more so, given the nature of the prime data sources and the approximations in the calculations.

Saving rates are difficult to observe from household surveys. The Household Expenditure Survey has not been designed to derive either household or individual saving and extreme caution is needed when attempting to derive a saving residual from the data. Bascand et al (2006) show that there are major asymmetries in the HES recording of incomes and expenditures which have a major effect on any saving residual.

Whether similar coverage issues exist with SoFIE is unclear at this stage, although a preliminary analysis suggests they may. Moreover, as SoFIE data is used to measure saving indirectly using the net wealth approach, other issues arise. The approach requires the identification and removal of all asset revaluations and other (non-saving) causes of changes in net wealth. Studies to date have not eliminated these factors. Nevertheless, SoFIE has provided an invaluable added perspective on the savings position.

This same comment applies to those studies that directly adjust the RBNZ balance sheet data. In addition, there are significant gaps in the asset coverage which could potentially have a major impact on any derived saving residual.

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<sup>36</sup> Refer, for example, to: Claus and Scobie (2002), Gibson and Scobie (2001), Le, Scobie *et al* (2009), Scobie and Henderson (2009) and Le, Gibson *et al* (2010).

<sup>37</sup> Bosworth, Bryant *et al* (2004).

The measurement issues associated with the alternative saving measures are significant. However, whether they are sufficient to rule out a valid comparison with the official saving series is arguable and more work is needed to reconcile the saving series being derived by the various approaches. Until then, there will continue to be some doubt surrounding the household saving picture.

We note that SoFIE is a longitudinal survey whose three waves have now been completed, and no continuation has been planned.

### *National saving*

Saving can be measured in gross and net terms. Gross national saving is the difference between gross income and consumption, while net national saving is the difference between disposable income and consumption after allowance is made for the wearing out of existing capital. Note that income excludes capital gains or losses. Normally net saving rates are analysed, as these reflect the savings available to expand the capital stock, rather than just replace depreciated capital. Using gross rather than net measures does not alter the "saving story" (Figure 9.1 below).

As Box 11 shows, the way the national accounts are constructed means there are two ways of measuring national saving. One is the difference between income and consumption; the other is the sum of investment plus the current account balance. Both methods give similar numbers, and indicate the saving measurement can be trusted, at least to the extent that the national accounts correctly record income, investment and consumption. We generally use Statistics New Zealand data, as it is assembled using international accounting guidelines and is comparable with international studies, although we note in places where these guidelines may be potentially misleading.

#### **Box 11: Relationship between national saving, investment and the current account**

The relationship between national saving, investment and the external current account can be shown as follows using the national accounts identity: production = expenditure.

National saving can be defined as:

$$S = Y - C \quad [\text{or, } S = \text{NDI} - C],$$

where S is national saving, Y is national disposable income (NDI) and C is private plus government consumption expenditure.

Income is equal to the sum of domestic and foreign spending on the output that is produced, plus net income and transfers paid abroad.

$$Y = C + I_{\text{net}} + X - M + \text{NIT}$$

where Y and C are defined above,  $I_{\text{net}}$  is net investment (gross fixed capital formation less consumption of fixed capital plus change in inventories),  $[X - M]$  is exports less imports, which represents foreign demand, and NIT is net income and transfers paid abroad. Government expenditure on consumption and investment goods are included in C and  $I_{\text{net}}$ . It follows that

$$S = I_{\text{net}} + (X - M + \text{NIT}), \text{ or}$$

$$S = I_{\text{net}} + \text{current account balance (CAB)}.$$



As the current account in New Zealand is generally a deficit, it effectively measures the saving from the rest of the world ( $S_{row}$ ) flowing into New Zealand. In addition, we subtract consumption of fixed capital (depreciation) from both sides of this identity to arrive at (net) saving and net investment. Hence, we can express the familiar investment equals saving identity as:

$$I_{net} = S + S_{row}$$

In other words, net investment in New Zealand is financed from either national saving or foreign saving.

These equations show that while national saving may be a residual in the national income and outlay account, the national accounting framework provides a check on its accuracy. Given that the current account balance and the investment series are regarded as robust, this provides some assurance on the quality of the national saving figure.

Table 3 shows national saving in 2009 and 2010, using nominal data from the latest national accounts.

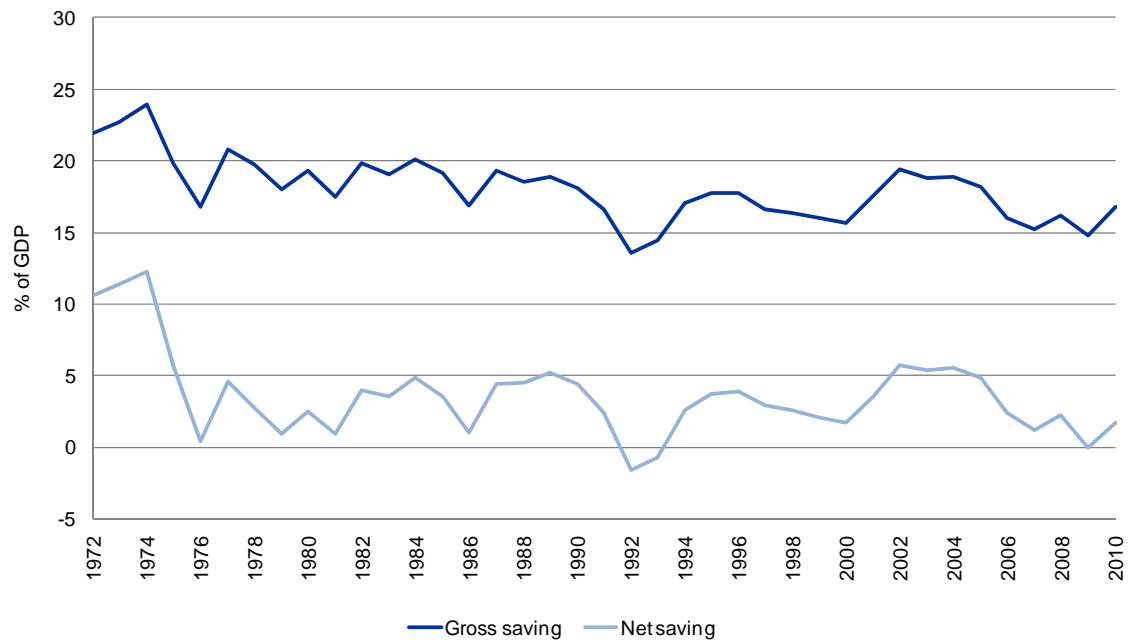
**Table 3: Derivation of national saving**

| <b>S = NDI – C</b>                                       |             |             |
|--|-------------|-------------|
|  | <b>2009</b> | <b>2010</b> |
| Gross domestic product                                   | 185,561     | 187,802     |
| plus Net income and transfers from the rest of the world | -12,323     | -7,192      |
| equals Gross national disposable income                  | 173,238     | 180,610     |
| less Final consumption expenditure                       | 145,868     | 149,046     |
| equals Gross saving                                      | 27,370      | 31,564      |
| less Consumption of fixed capital                        | 27,363      | 28,391      |
| equals Saving (1)  | 7           | 3,173       |
| <b>or, alternatively, S= I + CAB</b>                     |             |             |
| Gross capital formation                                  | 41,512      | 35,521      |
| Financed by  |             |             |
| Current account deficit                                  | 14,723      | 4,458       |
| Statistical discrepancy                                  | -582        | -501        |
| Gross saving   | 27,370      | 31,564      |
| less Consumption of fixed capital                        | 27,363      | 28,391      |
| equals Saving (2)  | 7           | 3,173       |

Figure 9.1 charts gross and net national saving as a percentage of GDP. Since 1975 the saving ratio has remained relatively steady, averaging 2.9% over this period, which is low by international standards.

The gap between gross and net saving represents consumption of fixed capital, which is the decline in the value of fixed assets over the accounting period due to wear and tear, and foreseen obsolescence.

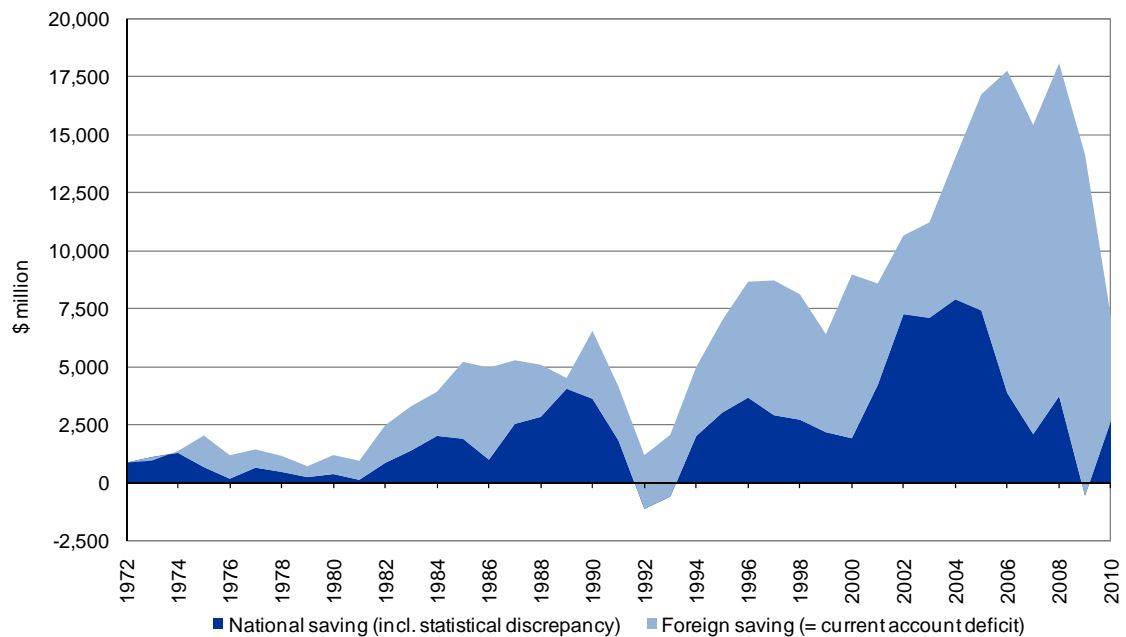
**Figure 9.1:** Net saving has averaged 2.9% of GDP since 1975



Source: Statistics New Zealand

As Figure 9.2 shows the shortfall between domestic saving and investment has become quite marked since 2004. While the recent economic downturn has closed the gap between domestic saving and net investment, this is as much due to a fall in investment levels as a turn-around in saving behaviour. Indeed, as economic activity recovers, unless there is a major shift in saving patterns, the difference between domestic saving and investment and hence the current account deficits are expected to continue to be large.

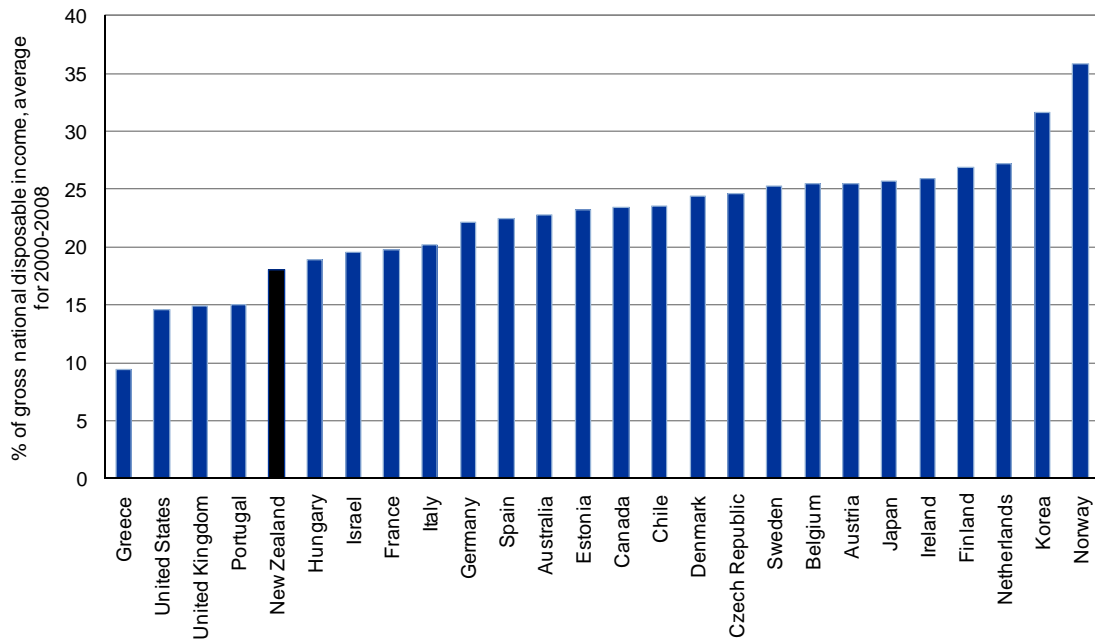
**Figure 9.2:** New Zealand has funded net investment increasingly from foreign borrowing since 2004



Source: Statistics New Zealand

From an international perspective, New Zealand's national saving rate appears low compared to most other OECD countries. Caution is needed as differences in measurement methods<sup>38</sup> can influence country statistics, and saving rates can also be strongly influenced by country-specific demographic and institutional factors. But the comparison does suggest that New Zealand's national saving rate is low.

**Figure 9.3:** New Zealand's gross saving is at low end of OECD



Source: OECD

### Sector saving

National saving can be analysed by the institutional sectors of the economy, such that

$$S = S_g + S_h + S_b,$$

where  $S_g$  is government saving,  $S_h$  is household saving and  $S_b$  is business saving, the sum of saving by non-financial institutions, financial institutions, and non-profit institutions (which is small enough to be ignored). The procedures used to calculate these sector saving measures are the same as for the nation, except that additional inter-sectoral income and outlay flows must be accounted for. At the national level, these flows consolidate out (for example, individuals' income taxes are a payment by the household sector matched by a receipt by government). With the recent development of institutional sector income and outlay accounts,<sup>39</sup> these sector saving residuals are now independently estimated and reconciled both with each other and with the national saving total.

<sup>38</sup> As net saving rates are strongly influenced by consumption of fixed capital estimates and measurement methods vary widely across countries, for international comparisons, gross saving measures are preferred. Another important qualification about the saving measures concerns the way interest payments are adjusted for inflation.

<sup>39</sup> Statistics New Zealand (2010a).

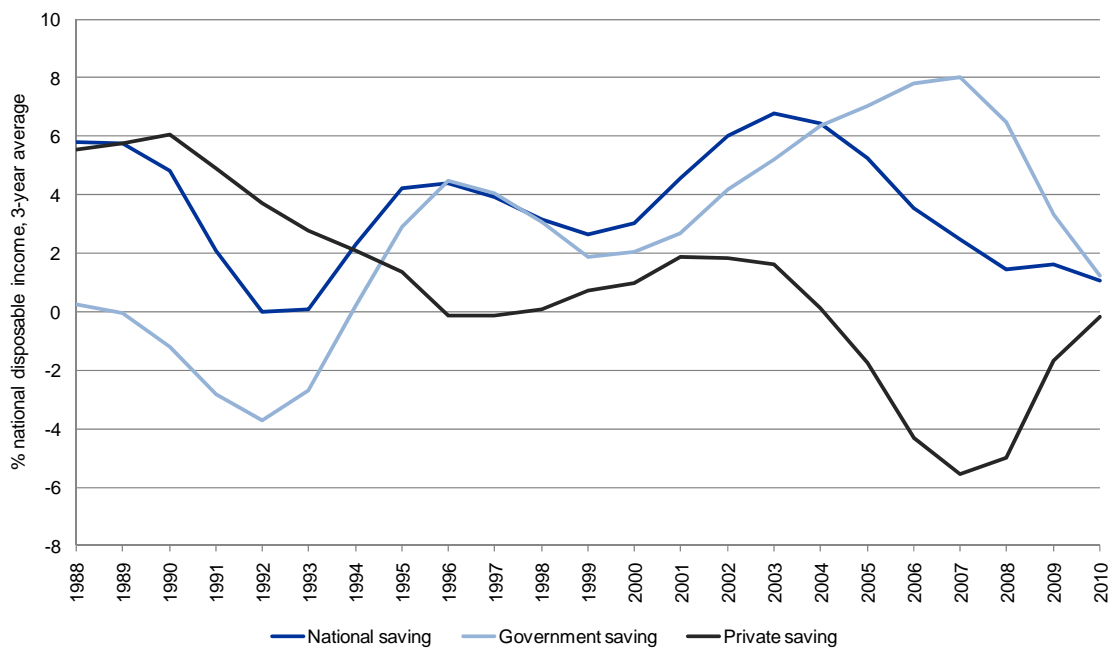
From the above equation, private sector saving  $S_p$  can be defined as the sum of household saving ( $S_h$ ) and business saving ( $S_b$ ),

$$S_p = S_h + S_b = S - S_g$$

Because both total national saving and government saving are known, the difference between the two ( $S - S_g$ ) is known with some confidence and so we can attach the same level of confidence to  $S_p$ , private saving. The key components of private saving, household and business saving, are estimated with less precision, however.

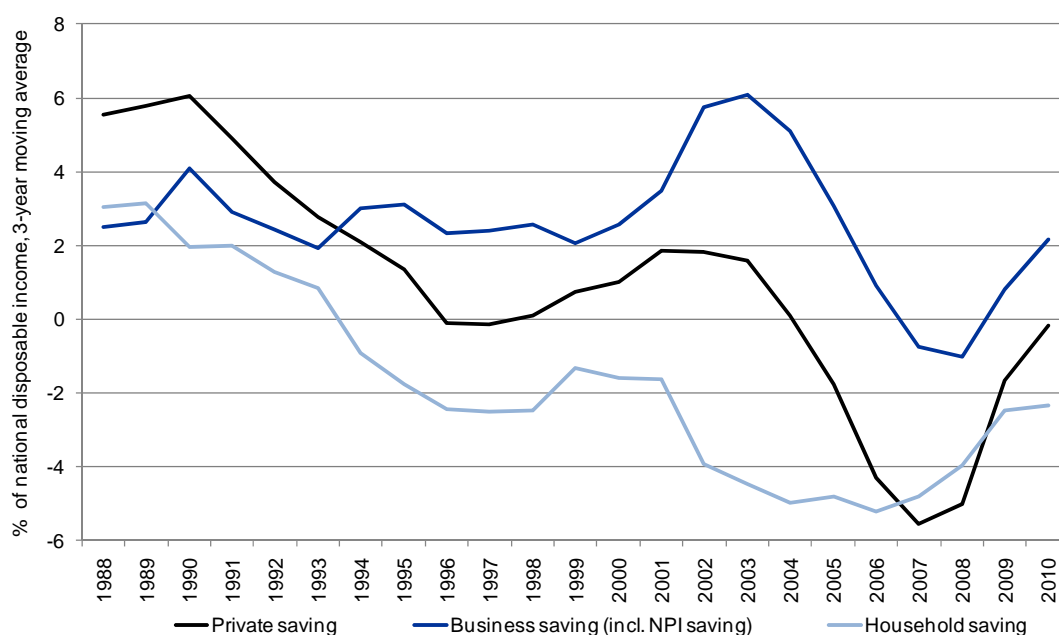
Figure 9.4 below graphs the key series. Private saving has been generally declining for the last two decades and post-2003 fell steeply to become negative, with a pick-up in the last two years. A similar pattern is evident for household saving (Figure 9.5) except that (a) negative saving has been recorded since the mid-1990s and (b) the steeper decline in the saving rate begins earlier in 2001 and coincides with the growth in government saving. The government has been recording surpluses for much of this period, especially post-2002, but recent fiscal policies coupled with the economic downturn have seen government deficits re-emerge, resulting in a steep decline in government saving.

**Figure 9.4:** National saving has fallen since 2003 because a decline in private saving overwhelms government saving



Source: Statistics New Zealand

**Figure 9.5:** The fall in private saving between 2002 and 2007 was largely driven by business saving



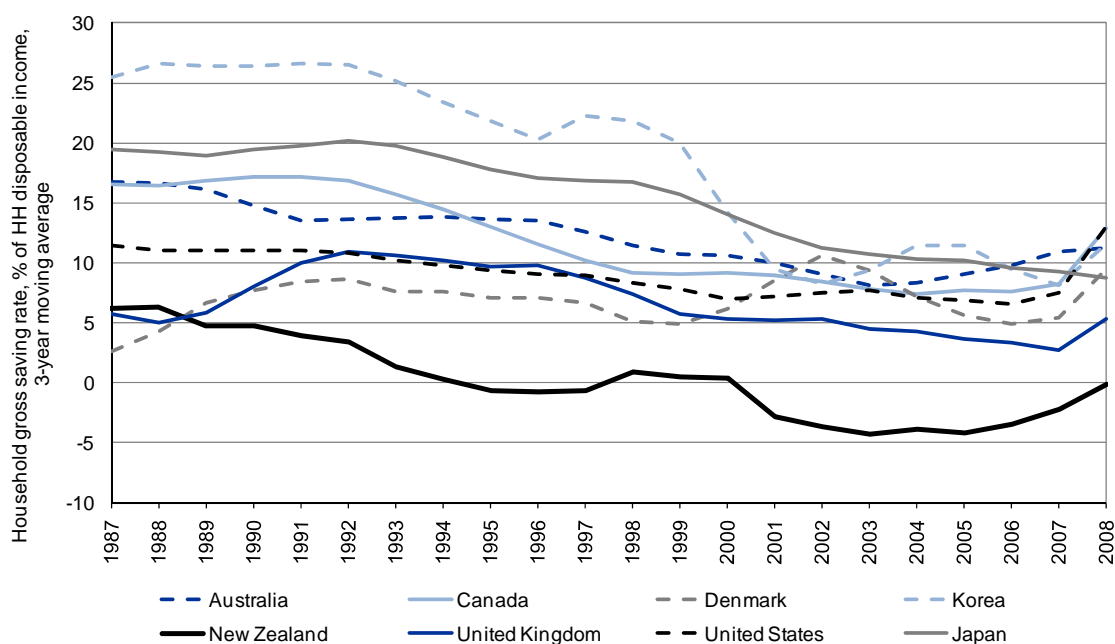
Source: Statistics NZ

Business saving is shown as positive over much of this period, but it too begins to fall post-2003 and is negative in 2007 and 2008 before lifting in the last two years. Positive business saving reflects a tendency for companies to build up retained earnings rather than pass them on to shareholders in the form of dividends. This is particularly noticeable post-2000, following increases in personal tax rates that strongly encouraged a search for tax shelters. Business saving is reduced when firms make losses.

Figure 9.6 charts household gross saving as a percentage of household gross disposable income for a selection of OECD countries. A declining saving rate is shown for most countries. However, despite recent upward revisions for the household saving rate in New Zealand, it is still much lower than rates for the other countries.<sup>40</sup> The opposite can be observed when business saving rates are graphed for the same selection of countries, i.e. prior to 2003, the New Zealand business saving rate is higher than in many of the other countries. This may indicate that there is some substance to the concern that household saving is low due to the difficulties of disentangling part of household saving from business saving.

<sup>40</sup> The earlier caution regarding coverage and methodology differences in international comparisons applies. For most of the OECD countries shown, "Household" will also include unincorporated businesses and private non-profit organisations serving households.

**Figure 9.6:** Household gross saving rates have trended down, but New Zealand's rate is low<sup>41</sup>



Source: OECD; Statistics NZ; Statistics Denmark; Statistics Bureau, Ministry of International Affairs and Communication, Japan; Office for National Statistics, UK

Note: New Zealand, UK and Japan: Household sector only. All other countries: Household sector plus NPI serving households

The declining and negative household saving rate has been questioned by a number of analysts who have derived alternative measures based on different data sources. None of these is strictly comparable to the national accounting-based saving series (for more on this, see Box 10). While there remain some doubts regarding the split between household and business saving in the official series, the level and trend of aggregate private saving is not in dispute.

The saving data, especially household saving data, raise a major puzzle, because they indicate New Zealanders have not saved very much in the last two decades. Yet estimates of the change in national wealth over the same period suggest wealth has increased significantly. The discrepancy between these two sets of figures has caused much debate and this issue is explored below.

### Saving and net wealth

For some purposes, the official saving measures are defined too narrowly, and an alternative is to examine changes in national and sector net wealth. These measures are more comprehensive than the national saving data as they embody holding gains/losses as well as other changes in the volume of assets (e.g., capital transfers, the depletion and discovery of natural resources and unforeseen losses). They therefore include a wider range of resources available for future consumption and investment.

<sup>41</sup> New Zealand, UK, Japan: household sector only. All other countries: household sector plus non-profit institutions serving households.

Saving and wealth are closely linked. In a full set of national accounts, national and sector balance sheets would be compiled. A balance sheet provides a statement of net wealth, and measures of the change in net wealth can be derived by calculating the changes between balance sheets over a period. Changes in net wealth can occur as a result of saving, capital transfers, holding gains and losses, or other factors such as unforeseen destruction of assets, natural resource discoveries or asset/liability reclassifications.

For the nation, changes in wealth are the sum of national saving, asset revaluations, capital transfers from the rest of the world, and changes in wealth from all other sources:

$$\Delta W = S + R + CT + OT,$$

where  $\Delta W$  is the change in national net wealth from one period to the next, S is national saving, R is the revaluation of real and financial assets and liabilities, CT is capital transfers from overseas, and OT is other changes in net wealth holdings that may occur.

The link between saving and net wealth can be used to derive a saving measure by taking the change in wealth from one period to the next and deducting the contributions to that change that have come from revaluations and capital transfers:

Ignoring OT,

$$S = \Delta W - R - CT.$$

Attempts to use this alternative approach to derive saving need to ensure that all other factors that contribute to net wealth such as asset revaluations are fully removed. Refer to Box 10: Alternative saving measures that touches on this issue with regard alternative household saving series.

#### *The national balance sheet*

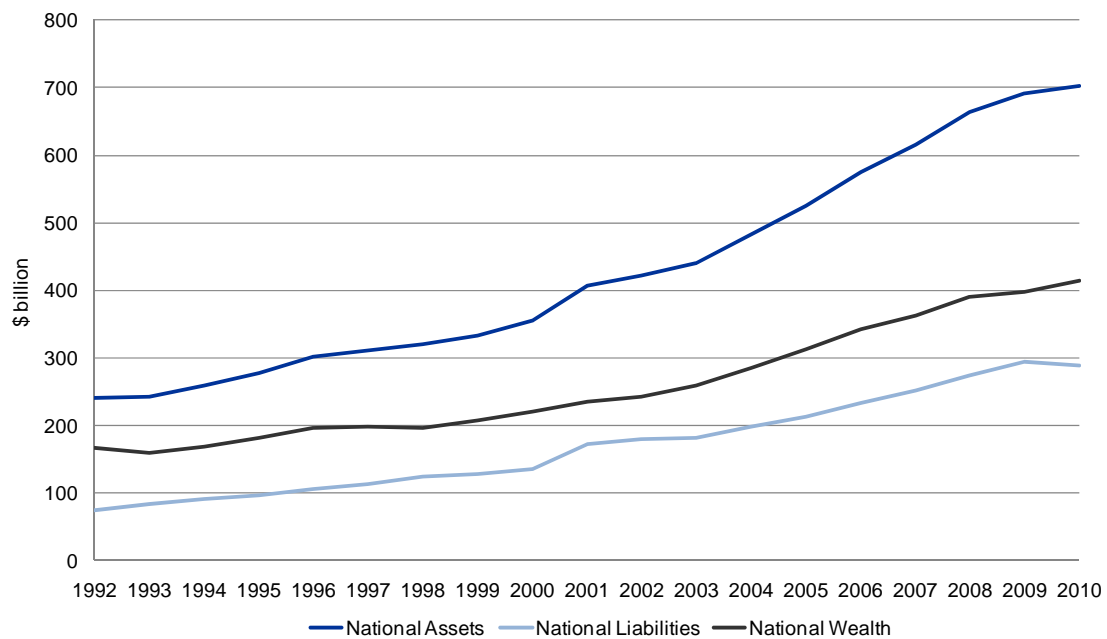
New Zealand does not produce official balance sheet statistics. However, Table 4 presents an alternative stylised balance sheet for New Zealand, following Makin, Zhang *et al* (2008). National assets comprise the physical (or fixed) assets owned by New Zealanders plus New Zealand investment abroad; national liabilities include foreign investment in New Zealand. Note that this is not a complete national balance sheet – assets such as land and natural resources, inventories and non-produced assets (for example, patents and goodwill) are not included. However, as the focus of the table is on the major assets and liabilities that change over time due to economic transactions and that impact on net wealth, most of the important assets are captured.

A key point in the table (illustrated in Table 4) is that despite the increase in external liabilities that has followed from New Zealand's use of foreign capital, net wealth has risen both in aggregate and per capita terms. While national assets have risen 191% since 1992, net wealth has increased more slowly, by 149%, because many of the assets were financed by offshore funding, with foreign liabilities increasing by 286%. In per capita terms, the wealth increase is even more modest at 101%. Consequently, while foreign investment has been positive for net assets, an over-reliance on foreign borrowing has resulted in substantially smaller gains in net wealth and significant increases in New Zealand's liabilities to the rest of the world.

**Table 4:** National assets, liabilities and wealth (\$NZ billion)

|                       | Fixed assets | NZ investment abroad | National assets | National assets per capita (\$) | National liabilities | National wealth | National wealth per capita (\$) |
|-----------------------|--------------|----------------------|-----------------|---------------------------------|----------------------|-----------------|---------------------------------|
| 1992                  | 218.6        | 22.5                 | 241.1           | 68,776                          | 74.8                 | 166.3           | 47,439                          |
| 2002                  | 338.2        | 82.7                 | 420.9           | 107,936                         | 179.2                | 241.7           | 61,973                          |
| 2003                  | 359.2        | 80.8                 | 440.0           | 110,821                         | 180.6                | 259.4           | 65,339                          |
| 2004                  | 393.2        | 88.8                 | 482.0           | 119,154                         | 197.2                | 284.8           | 70,400                          |
| 2005                  | 431.0        | 93.7                 | 524.7           | 127,942                         | 212.8                | 312.0           | 76,063                          |
| 2006                  | 469.7        | 105.2                | 575.0           | 138,610                         | 233.7                | 341.3           | 82,276                          |
| 2007                  | 504.4        | 111.2                | 615.6           | 146,641                         | 252.4                | 363.3           | 86,524                          |
| 2008                  | 540.1        | 123.7                | 663.8           | 156,520                         | 273.2                | 390.6           | 92,097                          |
| 2009                  | 564.7        | 127.1                | 691.8           | 161,586                         | 294.0                | 397.7           | 92,904                          |
| 2010                  | 574.4        | 127.6                | 702.1           | 162,063                         | 288.6                | 413.4           | 95,436                          |
| Increase 1992 to 2010 | 163%         | 467%                 | 191%            | 136%                            | 286%                 | 149%            | 101%                            |

**Figure 9.7:** National assets have almost tripled, but even higher national liabilities growth has knocked back net wealth growth since 1992



Source: Statistics NZ

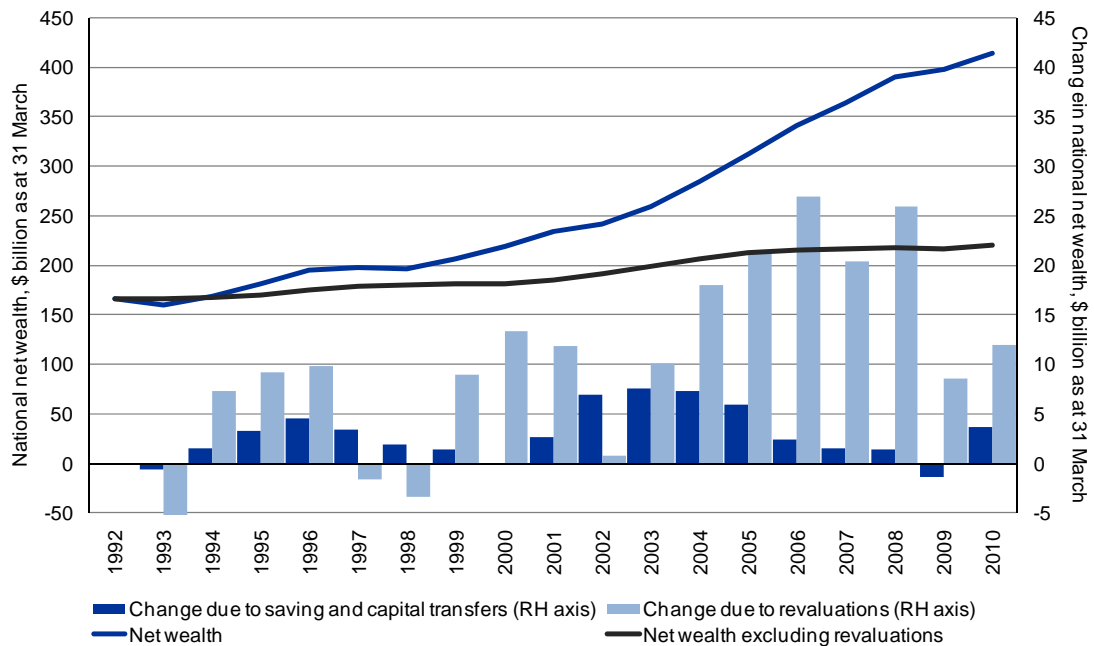
The other key point to note is the significance of asset revaluations. As noted above,

$$\Delta W = S + R + CT + OT,$$

and the key contributors to changes in national wealth are saving and revaluations. This is shown in Figure 9.8 below.



**Figure 9.8:** Key driver of national wealth growth since 1999 has been asset revaluations and not saving<sup>42</sup>



Source: Statistics NZ

Figure 9.8 clearly illustrates how most of the increase in net wealth in recent years has arisen not due to new saving, but to asset revaluations. This would be even more significant in the figure, if land and natural resources were included. This important difference between saving and net wealth is taken up again in the next section.

#### Household balance sheet and household net wealth

Changes in household net wealth can be measured using the Reserve Bank of New Zealand data on household financial assets, liabilities including the value of the housing stock. However, these data are not a complete household balance sheet and omit a number of important asset categories, including equity in unincorporated businesses (trading trusts), shares in unlisted companies, direct ownership of assets such as forests and certain overseas owned assets, and liabilities such as personal loans from privately controlled businesses. Given the large number of small enterprises in New Zealand, the omission of business equity and unlisted shares – and possibly personal loans – is likely to affect the accuracy of studies that use the RBNZ data to analyse, for example, the composition of household

<sup>42</sup> Based on the limited asset coverage in Table 4. Refer to the opening paragraphs of the national balance sheet subsections for a list of the key omissions.

asset holdings<sup>43</sup> or to derive alternative saving measures. Given that household saving is equal to changes in wealth adjusted for asset price revaluations and capital transfers, gaps in the coverage of wealth will affect any saving derivation. This may be quite significant for omitted assets such as business equity, given the owners' ready access to the cash-flow of the business.

Nevertheless, the RBNZ data coverage is considered sufficiently comprehensive to identify key net wealth changes over time. **Table 5** presents data for a selection of years. The striking feature is the significant increase in nominal net wealth (up 124% from 2000 to 2009) due to large increases in the market value of the housing stock, which in turn was driven by rapidly rising house prices. This is clearly illustrated in Figure 9.9 which graphs the change in household net wealth as a percentage of household disposable income from 1987 and compares this with the official household saving rate. The contrast could not be more stark, especially as the left-hand net worth axis is larger than the right-hand saving axis by a factor of ten.

This apparent anomaly is explained by the fact that almost all of the increase in net worth is due to property revaluations which are specifically excluded from the saving measure. This is shown in Figure 9.10<sup>44</sup> The saving series in Table 5 is derived from a combination of data from the RBNZ household balance and the national accounts and represents an alternative to the official flow-based saving series. While it corroborates the declining saving rate and indicates that households may have been dissaving in recent years, it does indicate a slightly higher rate of saving in most years.

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<sup>43</sup> Wave 4 of the *Survey of Family, Income and Employment* provides data on household assets and liabilities. This shows the following breakdown of household assets for 2006 as a percentage of net assets. The table also includes a comparison with Australia obtained from the *Household, Income and Labour Dynamics for Australia* Survey.

Table: Household asset types as percentages of net household assets

|                                   | New Zealand | Australia |
|-----------------------------------|-------------|-----------|
| Residential property              | 46%         | 50%       |
| Pensions and superannuation funds | 2%          | 19%       |
| Business and farm assets          | 22%         | 9%        |
| Shares, investment funds, etc     | 9%          | 8%        |
| Bank deposits                     | 5%          | 5%        |
| Vehicles                          | 3%          | 4%        |
| Other assets                      | 14%         | 6%        |
| Liabilities                       | 14%         | 14%       |

Not all business assets will be excluded from the RBNZ data. The NZ housing values include all residential properties, including investment properties owned by businesses and trusts. This wider coverage is matched by financial liabilities which include total housing mortgages. This table is taken from Retirement Policy Research Centre (2010).

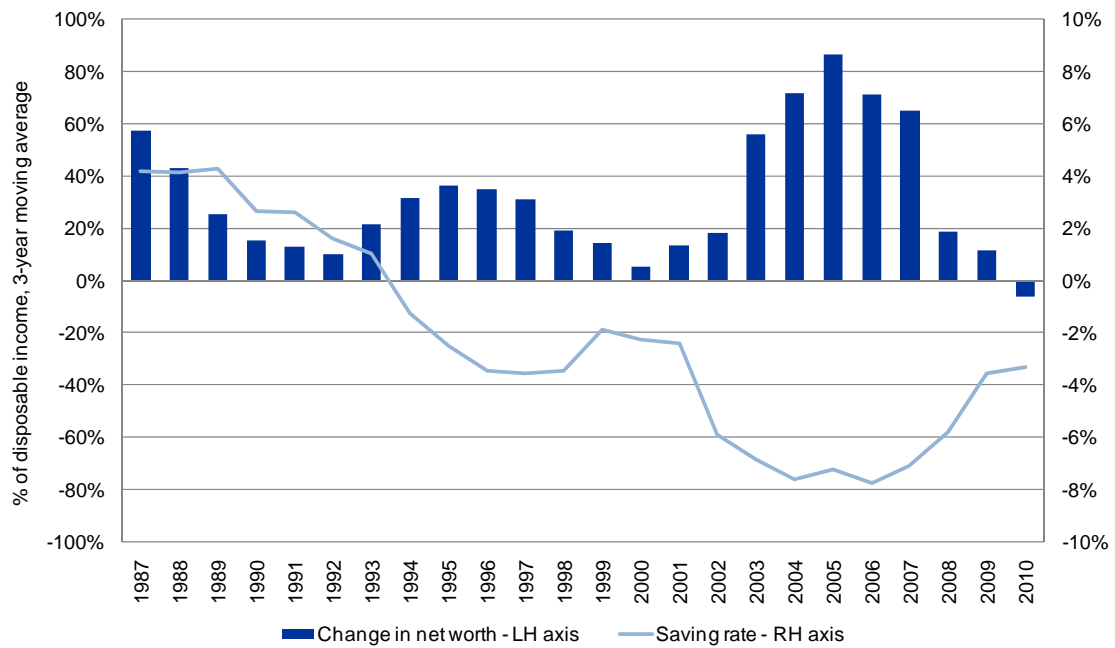
<sup>44</sup> Figure 9.10 is taken from Hodgetts, Briggs et al (2006) and the net wealth breakdown is only available for the years shown. Contributions to changes in net wealth come from three sources: saving, revaluations and net capital transfers from overseas (largely migrants' capital). Net capital transfers are relatively minor and are not shown in the figure.

**Table 5: Household sector net wealth**

| (\$ billion)<br>as at December                     | 1990       | 2000       | 2005       | 2006       | 2007       | 2008       | 2009       |
|--|------------|------------|------------|------------|------------|------------|------------|
| <b>Assets</b>                                      |            |            |            |            |            |            |            |
| Deposits with financial institutions               | 26         | 45         | 73         | 82         | 90         | 99         | 102        |
| Other fixed interest assets                        | 8          | 8          | 14         | 16         | 19         | 22         | 26         |
| Life, superannuation and managed funds             | 27         | 55         | 58         | 65         | 65         | 56         | 63         |
| Direct holdings of equities                        | 9          | 17         | 20         | 27         | 26         | 17         | 22         |
| <b>Total household financial assets</b>            | <b>68</b>  | <b>125</b> | <b>164</b> | <b>188</b> | <b>200</b> | <b>195</b> | <b>212</b> |
| Housing value                                      | 127        | 231        | 506        | 559        | 614        | 568        | 603        |
| <b>Total assets</b>                                | <b>195</b> | <b>356</b> | <b>670</b> | <b>747</b> | <b>814</b> | <b>763</b> | <b>815</b> |
| <b>Liabilities</b>                                 |            |            |            |            |            |            |            |
| Loans from banks and non-bank lending institutions | 26         | 73         | 133        | 150        | 168        | 175        | 180        |
| All other loans                                    | 2          | 5          | 8          | 9          | 10         | 11         | 11         |
| <b>Total liabilities</b>                           | <b>28</b>  | <b>78</b>  | <b>141</b> | <b>159</b> | <b>178</b> | <b>186</b> | <b>191</b> |
| <b>Household net wealth</b>                        | <b>167</b> | <b>278</b> | <b>529</b> | <b>588</b> | <b>636</b> | <b>577</b> | <b>624</b> |

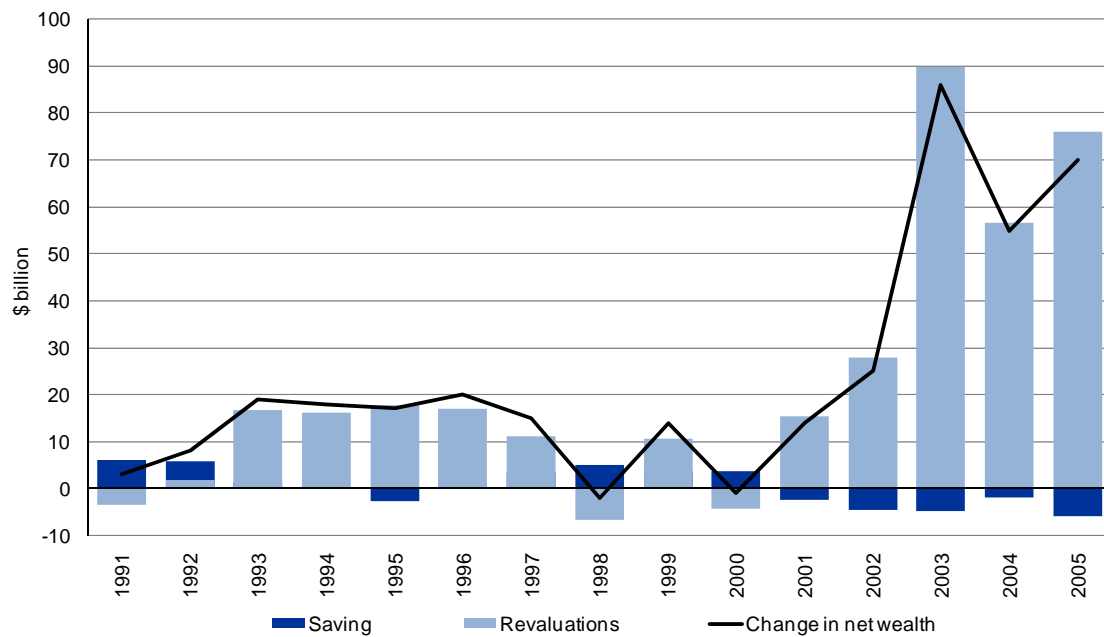
Source: Reserve Bank of New Zealand

**Figure 9.9: Household saving rate and change in net wealth paint different pictures**



Source: Statistics NZ

**Figure 9.10:** Property revaluations explain nearly all changes in household net worth since 2001



Source: Hodgetts, Briggs et al (2006)

### Retirement saving adequacy

Several studies have used alternative unit-record data sources to better understand household saving and wealth accumulation by asking whether households have adequate savings for retirement. In general, these suggest retirement saving is adequate. Individuals also have other savings goals and it would therefore be useful to look at the adequacy of savings for other purposes. Unfortunately we do not have information on people's specific savings goals. Making provision for retirement is also a reasonably universal requirement, and other saving goals, such as saving for a house deposit and paying off the mortgage, may impact on an individual's standard of living in retirement.

#### Box 12: What is meant by adequacy?

There are a range of measures that can be adopted to measure retirement savings adequacy, including (Scobie, Gibson et al 2004):

- Replacement rate: post-retirement income as a proportion of pre-retirement income
- Absolute poverty: a level of income necessary to attain an acceptable minimum standard of living
- Relative poverty: a level of retirement income that is relative to the median income of some reference group of retirees or of the incomes of the current working population
- Consumption-smoothing: retirement income should allow people to sustain their pre-retirement level of consumption, thus avoiding a drop in their living standards. A variant of this is to allow for an acceptable change in the level of consumption (e.g., post-retirement consumption should be at least 80% of pre-retirement consumption)
- Marginal utility of consumption over time: a level of income that allows an individual to have the same marginal utility of consumption over time

Empirical work in New Zealand generally uses the consumption-smoothing assumption. The research estimates the saving rates and the replacement rates that are implied if individuals attempt to sustain an equal level of consumption before and after retirement. This evidence suggests that the majority of 45-64 year olds are saving adequately for their retirement. The retirement savings adequacy of high income earners is not a concern, and under current settings, NZ Superannuation provides an adequate replacement rate for the lowest 40% of income earners (Le, Scobie *et al* 2007, Scobie and Trinh 2004). This leaves a potential shortfall in retirement income for some middle-income earners, particularly those under 45. Also, younger people don't know which income bracket they will fall into later in life. Younger low-income workers may well become older middle-income workers.

Is the apparent adequacy of retirement savings due to active saving or passive asset price appreciation? Greater asset price appreciation decreases the required level of active saving. Unfortunately, it is difficult to separate these components. However, the studies mentioned above take a conservative approach of excluding the value of owner-occupied housing as a source of retirement income on the rationale that those owning a primary residence may want to retain this, partly as a precautionary investment, partly as a potential bequest, and partly because they simply like living there.

As mentioned above, the evidence leaves open the question of adequacy in younger age groups. Unfortunately, it is difficult to investigate empirically whether younger age groups are saving adequately, due to the large uncertainty about future projections of wealth, income and consumption. In any case, it is possible that retirement savings adequacy may become a larger issue as today's young reach retirement age. While the majority of those who are currently over 65 live in an owner-occupied house,<sup>45</sup> home affordability has decreased and it is likely that a larger percentage of people will be entering retirement as renters or with sizeable mortgages. In addition, younger people may not benefit as much from passive increases to their wealth, if asset prices appreciate at a lower rate in the future. Moreover, the question of the medium-to-long-term sustainability of NZ Superannuation brings the retirement income adequacy of younger people into further doubt.

Even if most households have adequate retirement savings, it does not follow that the country overall has adequate wealth. This is because New Zealand operates a largely pay-as-you-go government retirement scheme in which pensions are paid directly from tax receipts, and there is no national saving or wealth accumulation arising from it apart from the modest contributions to the NZ Superannuation Fund.

#### *Revisions to national accounts saving statistics*

In 2010, Statistics New Zealand released changes to its national accounts that have improved the quality of the saving statistics.

Addressing the known under-coverage of foreign investment income earned by households and small businesses from their directly-held investments offshore (i.e., shares, deposits and property not administered by New Zealand institutional investors). There was a similar gap for labour and investment income paid to the rest of the world. These gaps have now been closed.<sup>46</sup>

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<sup>45</sup> From the Statistics New Zealand 2006 Census, 72% of those aged 65 and over own or partly own their usual residence.

<sup>46</sup> The new statistics are derived from income declared for tax purposes. Any undeclared income will remain omitted from the national and household income statistics.

Official institutional sector accounts were recently published for the post-1999 years. The derivation of saving by sector is shown in the income and outlay accounts. As all of the income and outlay transactions across and within sectors must be reconciled and, in total, must match the national totals, this provides some quality assurance on the derived saving residual.

However, there do remain a number of possible issues. While the national accounts measures of national saving, government saving and, by deduction, private saving can be accepted with some confidence, there is still some uncertainty regarding the split of private saving between the business and household sectors. Part of this is definitional and part is measurement. The retained earnings of closely-held companies – the majority of companies in New Zealand – are correctly recorded in the business sector, and any distributions to the owning shareholders are restricted to declared dividends. However, the retained earnings are effectively at the shareholders' disposal and may be accessed through other distributions such as drawings and loans. These "income" sources are not recorded in household income. Similar distributional issues may apply to trading trusts.

When using measures of saving from the national accounts, it is important to understand the nature of these statistics. For example:

- Holding gains and losses arising from changes in the prices of assets are not included in the income accounts and are therefore not reflected in the saving measures.
- Other changes in wealth not associated with production, such as the unforeseen destruction of assets or the discovery of sub-soil assets, are also not included in the income accounts.
- In accordance with international guidelines, the retained earnings of direct foreign investment enterprises are distributed to their foreign owners, and vice versa for New Zealand direct investments overseas. As this net investment flow is usually a debit for New Zealand – reflecting the high levels of foreign ownership of resident enterprises – the practice leads to lower national and business saving than would otherwise be the case.
- Unincorporated enterprises owned by households are classified to the business sector. However, their full net profit is recorded as an entrepreneurial income withdrawal to households with no residual retained earnings being recorded in the business sector. Also, with the exception of the dwelling rental industry, the entrepreneurial income flow is the sum of both operating profits and losses. Ideally, the losses would remain in the business sector and only the positive profits be distributed as income to the household sector.
- Interest is measured in the income accounts on a nominal basis. This means that that part of interest which compensates a lender for the loss of purchasing power on the monetary value of the principal during an accounting period is reflected within the saving measures. Even though there are internationally accepted definitions of saving, caution is still needed when comparing saving rates across countries because of variation in the sector coverage and methodologies adopted. Nevertheless, such comparisons are useful to illustrate broad trends.

### *Household saving and debt*

The data shows that household saving has been low and declining since the mid-1980s and that in recent years households have even been dissaving. As the low and negative household saving rate undoubtedly contributed to rising external debt levels, it is pertinent to ask why the saving rate fell and what sustained it.

Factors put forward as possible explanations include:

- *Income growth.* Real average household incomes have not increased much over the last 25 years. New Zealand's low income-growth rate and low saving rate are consistent with international data that show that growth rates and saving rates are positively correlated.
- *Demographics.* An ageing population combined with low income growth may lead to a low aggregate saving rate. It has also been suggested that smaller households may have led to a rise in housing-related expenditures, thereby lowering saving. Immigration has also played a role in our low saving rate.
- *Financial liberalisation.* The liberalisation of retail financial markets and financial innovations have made credit easier to obtain and structure to meet household borrowing needs. This, combined with an attitudinal change to debt, may have contributed to a progressively lower saving rate. Note that if this has occurred, it will reduce the saving rate only temporarily, because whether you borrow to make a purchase and then repay debt, or save and then make a purchase, the average saving rate is more or less the same, although average wealth levels are different. To the extent that a behavioural change has occurred so that households increasingly spend and then repay debt rather than save in order to spend, there will have been a transitional decline in saving.
- *The attractiveness of housing as an investment.* New Zealand households have a tendency to accumulate wealth through housing rather than financial assets, reflecting tax and other price/risk incentives. To the extent that housing purchases are largely financed by debt, this leads to an increase in interest-servicing costs over time. Sustaining the same level of consumption for any given level of income would require households to save less.
- *Wealth effects.* House-price increases in recent years have been the major contributor to significant rises in household net wealth. While this wealth is unrealised, it can still affect home-owners' consumption decisions, leading them to lower their saving from current income. Some households have sustained high consumption levels (and hence had low or negative saving) by using mortgage loans to withdraw equity from houses, farms, businesses and probably assets owned overseas. There have been high levels of equity withdrawal since the early 2000s, reflecting strong rises in property prices, although these have eased in the last two years.
- *Use of private housing as security for business debt.* Private housing mortgages are a major source of funding for private companies in New Zealand.

- *The increase in government saving.* Figures 9.4 and 9.5 above show that household and government savings mirror one another. From 2000, the payments households made to government increasingly outstripped their transfer receipts, a period when there was a sharp fall in household saving and a matching lift in government saving. This could have influenced household saving in two ways: (i) lowering saving as households interpret the stronger government fiscal position as reducing the need to save for their own retirement, health etc. requirements<sup>47</sup>; and (ii) lowering saving as a result of reduced disposable income while still maintaining current consumption levels.

New Zealand's household debt levels doubled in the last 15 years as a proportion of disposable income and are now around 160% of disposable income. Household borrowing has been a major contributor to the lift in New Zealand's overseas debt levels, as much of it is secured against property. Most of it is intermediated via the banking system and shows up in national statistics as offshore corporate debt.

High household debt levels have two main causes. The first is low saving rates. The second is that high debt levels are the inevitable consequence of rapidly increasing property prices, as new entrants to the property market borrow much more than older cohorts borrowed (Ellis 2005). The major increase in debt levels occurred after a period of rising property prices, suggesting that much of the increase in debt cannot be attributed to low saving levels. Of course, if households had saved more, debt levels would be lower.

## 9.2 The probability of a sudden stop (3.1)

The main concern with New Zealand's high NFL arises from the consequences of a sudden stop – an economic disaster. How likely is an economic disaster, and how large might it be?

These issues have received considerable attention in the literature over the past few years. Barro (2006) used a disaster model to explain the historically high average equity risk premium – the excess of equity returns over bond returns. This was a development of a model proposed earlier by Rietz (1988), but Barro calibrated his model by tabulating 60 disasters for 35 countries (including New Zealand) that resulted in a GDP contraction of 15% or more in the twentieth century.

Barro estimated the annual probability of such a disaster to be 1.7%, and the average GDP contraction to be 29%. The frequency distribution of the observed GDP contractions is shown in Figure 9.11 below.

In further research, Barro and Ursúa (2008), using a refined data set with 21 countries for which comprehensive data were available from before WWI to 2006, also obtained a probability estimate of 1.7% for a GDP contraction of greater than 15%. Barro and Jin (2009) used a power law method on the same data set and estimated a probability of 3.8% for GDP contractions of 10% or more with an average contraction of 20%.

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<sup>47</sup> The influence of government spending on household saving may be more general than as suggested here. Major government programmes such as NZ Superannuation and the national health system serve as partial substitutes for private saving and insurance. Zero or low saving may be a rational economic outcome for households in the lower income deciles.



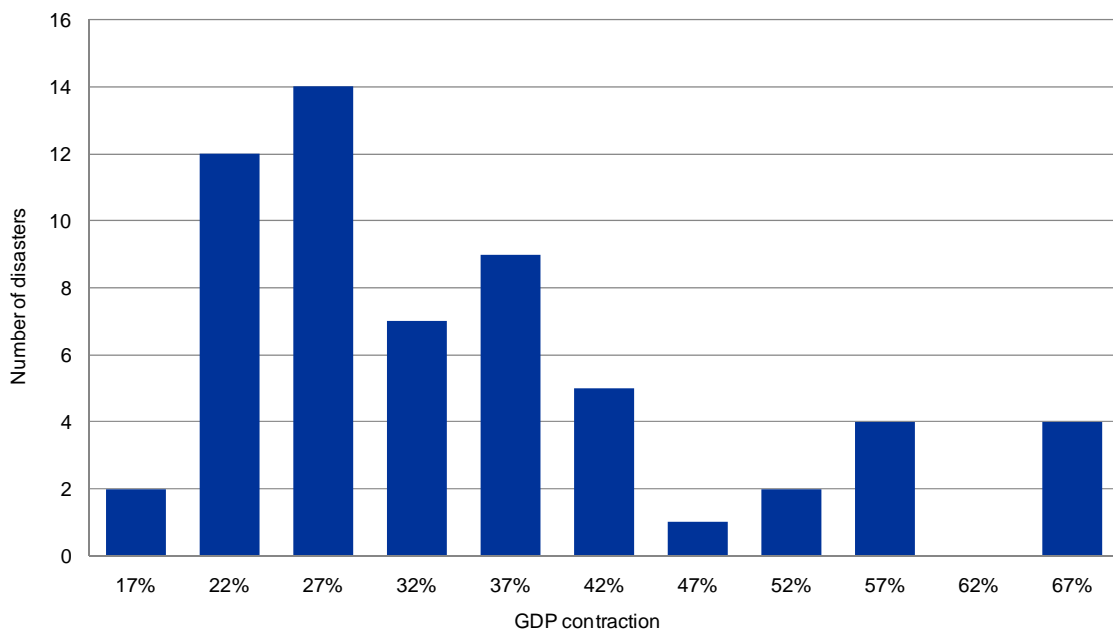
In short, the probability of a sizeable economic disaster – a sudden stop – is appreciable, perhaps one in 25 to 50 years.

Further, research by Farhi and Gabaix (2008) and Farhi, Fraiberger *et al* (2009) suggests that countries with higher economic disaster probabilities will have higher interest rates and exchange rates than expected under uncovered interest parity. This is the case for New Zealand, so that the probability of a sudden stop here could be higher than the estimates obtained by Barro and his co-authors for developed countries on average.

To put these figures in perspective, the probability of a fire in a house or flat large enough to call out the Fire Service is about 0.4% per year, or about one fire in 250 years. This is about one tenth the likelihood of a sudden stop, but virtually every house and flat in New Zealand is insured against fire. What is more, fire strikes only 0.4% of residences in any one year, but when there is a sudden stop, everyone is affected at the same time.

Finally, we note that some of the measures recommended in this report will not only mitigate the consequences of a sudden stop, but are likely to reduce the probability of occurrence as well.

**Figure 9.11:** Frequency distribution of economic disasters



Source: Barro (2006). Based on 60 disasters with GDP contractions of 15% or greater for 35 countries in the 20th century.

### 9.3 How financial and economic crises came out of the blue: three examples (3.1)

Three examples support the warning that financial crises can come out of the blue (or at least take countries by surprise despite warning signs) and do serious harm to the wider economy. They also illustrate that markets left to their own devices cannot always be relied upon to avoid the consequences of imprudent behaviour by entrepreneurs, investors and financial institutions and that the costs of regulatory or other policy inaction can be very high.

### *Ireland – how the Celtic Tiger feasted on debt and got a nasty case of indigestion*

Ireland earned its “Celtic Tiger” label based on its stellar economic performance over 1994 to 2001. This consisted of rapid, productivity-driven and export-oriented output growth with little inflation. Ireland’s position within the European Union, its strong growth in inward foreign direct investment and a ready supply of skilled labour boosted growth in modern, hi-tech sectors.

Things began to go wrong from around 2003 and culminated in the shock set off by the GFC in 2008. Associated with low interest rates from Euro membership and easy bank credit, the Celtic-Tiger economy became overlaid with a domestic property and construction boom. This proved to have strong bubble elements. Developments in this period included:

- Rapid credit growth fuelled spending on housing, commercial real estate and consumption.
- An explosion in the NFL of the Irish banking system provided funding.
- Property prices and construction activity grew rapidly.
- Property investors maximised tax breaks.
- Windfall tax revenues led to rapid growth in public spending.
- The real exchange rate appreciated and the tradable sector contracted.
- The current account moved strongly into deficit.

When the global crisis struck, Ireland’s property-exposed banks suffered a hard landing taking the rest of the economy with them. This featured:

- A shuddering halt in the construction sector.
- GDP growth falling from +6% to -7% in two years.
- House prices declining approximately 50% (more for development land).
- A collapse in investment.
- Government intervention to guarantee Irish banks and rapid falls in tax revenue, which turned the bank crisis into a fiscal crisis and eventually into a liquidity crisis for the government.
- Big job losses and a large jump in unemployment.
- Very large fiscal deficits and large projected increases in public debt.
- A series of tax increases and harsh cuts in public expenditures including public-sector wages and welfare benefits.
- The reliance of Irish banks – increasingly unable to access private wholesale funding markets – on the European Central Bank and the Irish central bank for funding.
- Ireland forced to seek and accept an EU/IMF 85 billion euro rescue package with conditions on fiscal consolidation and other policy settings.

Ireland is still far from being out of the woods. While the rescue package should go a long way to meeting its short- to medium-term liquidity needs, and exports are doing reasonably well, the path of recovery is uncertain and likely to be long and hard.

The lessons for Ireland are:

- Celtic Tiger-type growth is good; debt, property and consumption-fuelled growth is bad.
- The costs of a banking crisis can be very high.
- Institutional reforms (both regulatory and fiscal) are required to ensure “never again.”
- The overhang of high debt means a tepid recovery in domestic spending.
- “Internal” devaluation through price and wage adjustment is a slow process, but likely to be faster in Ireland than in less flexible Euro economies.

And for New Zealand specifically:

- New Zealand enjoyed the debt, property and consumption fuelled growth but missed the positive, Celtic Tiger elements of strong export and foreign investment growth
- The high and still rising debt overhang is a major problem, as are the structural and other weaknesses in the economy.
- New Zealand faces a slow and potentially very difficult adjustment and recovery process – but at least we missed out on the worst of the banking crisis.

#### *How sub-prime mortgages in the US triggered financial mayhem and a large economic shock*

The strong growth of sub-prime mortgages from 2001 to 2006 was a feature (in part cause, in part consequence) of the US housing bubble.

Features of this period of unsustainable credit growth, asset-price inflation and consumption included:

- The price of a typical US house increased 124% between 1997 and 2006.
- Median house prices in the two decades prior to 2001 were around 3 times median household incomes. This ratio increased to 4 in 2004 and 4.6 in 2006.
- US household debt in 2007 was 127% of household income, up from 77% in 1990 (NZ household debt grew to 160% of household income in 2009 from 80% in 1994).
- Foreign funds flowed into the US on a large scale, banks provided easy credit, household saving fell (equity withdrawal played an important role), and the US current account deteriorated.
- Market participants sought higher yields without adequate appreciation of the risks and failed to exercise proper due diligence.
- Weak underwriting standards, unsound risk management practices, increasingly complex and opaque financial products, and excessive leverage combined to create vulnerabilities in the system.

- Policy-makers, regulators and supervisors failed to adequately appreciate and address the risks building up in financial markets, or keep pace with financial innovation and its systemic ramifications.

From their peak in 2006, US house prices began a sharp descent, foreclosures climbed rapidly, and the value of the trillions of dollars worth of mortgage-backed securities began to look increasingly shaky. Despite the hopes of many for a “soft landing,” the negative momentum continued to build. Large investment banks and other important financial institutions began to bleed red ink. All this came to a head in the latter half of 2008 with the failure of Lehmann Brothers, and a banking liquidity crisis that suddenly cut the supply of credit to businesses globally. The crisis plunged the world into economic recession from which it still struggles to recover. Even today, up to quarter of US homeowners and/or mortgage holders are in negative equity.

Some of the lessons of the crisis in the view of critics such as Warren Buffett, Paul Volcker and Joseph Stiglitz are:

- Housing and other asset prices can fall dramatically.
- Free and open financial markets supported by sophisticated financial engineering cannot be relied on to support market efficiency and stability, or to direct funds to the most profitable and productive uses.
- Economic imbalances, such as large trade deficits and low savings rates indicative of over-consumption, are not sustainable.
- There were flawed incentive structures and inadequate regulatory systems. Policies to de-regulate banking, and allow self-regulation of investment banks proved costly failures.

#### *How New Zealand suffered the worst hangover in the OECD after the 1987 share market crash*

New Zealand is no stranger to financial crises that have damaged the economy. The October 1987 crash hit stock markets around the world but in New Zealand the impact was compounded by a business environment highly dependent on debt and dubious financial engineering. The fall in share prices in New Zealand (60%) was the largest amongst developed-country share markets and recovery to pre-crash levels took longer than elsewhere.

Some features of the pre-crash market mania included:

- Banks provided easy credit including for share purchases following the 1985 to 1987 financial deregulation.
- Rising share prices attracted many non-traditional investors.
- The share boom allied with America’s Cup fever drove prices relentlessly upward – the Barclay’s Index rose over 100% from the beginning of 1986 to the close on Friday, 7 November, in the same year.
- High interest rates (the 5-year government bond rate stood around 16% in November 1986) did not deter eager share investors leveraging their purchases.

Share prices and commercial property values collapsed after the share price crash of 20 October 1987. While the crash was by no means the sole cause, the New Zealand economy entered a prolonged recession (GDP per capita declined at an average annual rate of 1% from 1987 to 1992).

The backlash and loss of trust in financial assets and issuers continues to this day. The New Zealand share market's capitalisation as a share of GDP fell below 40% and has languished there while in other countries it has grown.

The disillusionment set the scene for the subsequent boom in direct investment in residential property.

An important lesson is that sweeping away the old, pre-1984 financial-sector regulation did not lead to an optimal regime. Rather, it swung incentives and behaviour to non-transparency, excessive risk-taking, poor advice and a lot of suffering on the part of savers and retail investors. The consequences have been felt for many years.

## 9.4 Household saving – what are the government's objectives and how can it best achieve them? (4.1)

### *Savings objectives*

Many governments have policies designed to influence household saving but it is not always clear what their objectives are or ought to be. A range of possible objectives for the New Zealand government are to:

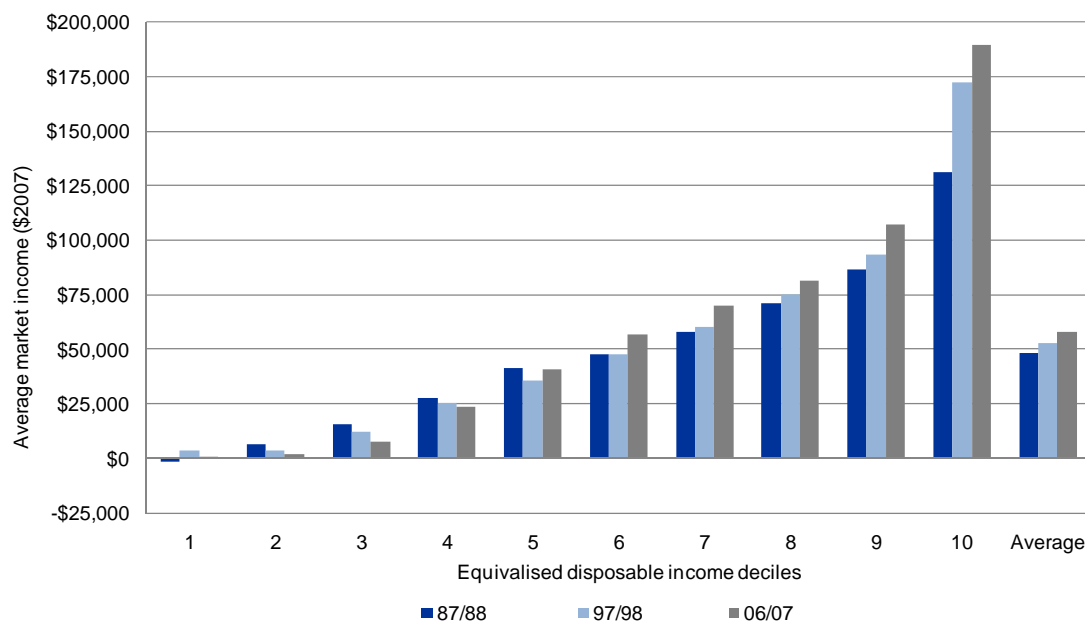
- 1 Help people make good saving decisions for themselves recognising that people often find it difficult to establish a saving habit, know how much to save, have the discipline to save, and decide in what form to save.
- 2 Remove as far as possible distortions to household saving such as tax disincentives or various forms of misinformation about saving, borrowing and consumption, and undue risks from fraud, incompetence etc.
- 3 Increase national saving to narrow the gap between domestic investment and saving and so reduce the country's current account deficit and its dependence on foreign funders. This in turn has benefits such as reduced vulnerability to financial crises, a lower exchange rate and cost of capital and a better balance between tradable and non-tradable activity in the economy.
- 4 Provide an efficient pay-as-you-go (PAYGO) tax-funded universal pension scheme at reasonable cost to the taxpayer.
- 5 Contribute to save-as-you-go (SAYGO) schemes on behalf of households (e.g., a government fund, paying off government debt or contributing to private funds). Such schemes aim to lift wealth in order to create more opportunities or deal better with future challenges (e.g., an ageing population, rising healthcare costs), or crises.
- 6 Encourage development of financial markets through higher household investment in financial assets. This could be in order to lean against a tendency to over-invest in housing or to reap wider economic benefits from a more developed financial system.

It is useful to place these objectives in a framework that captures the key elements of household saving behaviour. From an individual’s perspective, saving involves reducing consumption today in order to increase it in the future. From a country’s perspective, refraining from consumption out of current income releases resources that can be invested in the productive capacity of the economy.

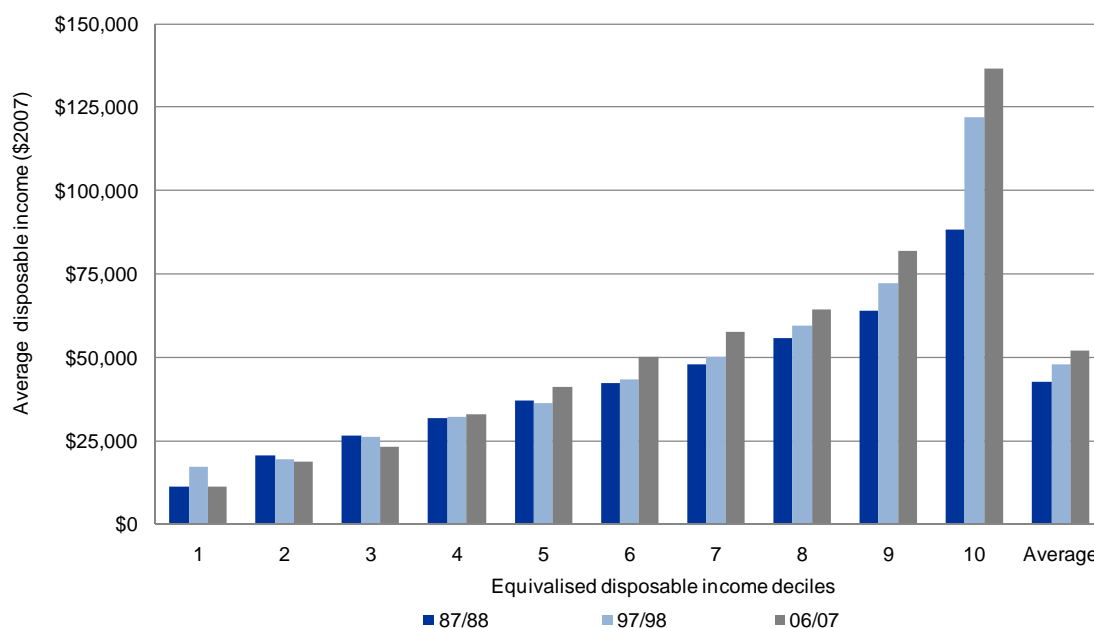
Economic theory suggests that there are three key determinants of a household’s consumption in different periods, and therefore of saving. These are income, the relative price of consuming in different periods and underlying preferences for consuming now or later.

Over the past two decades, the income growth, after inflation, of many New Zealanders has been low. In fact, households in the first five disposable income deciles have generally seen a fall in their average market income between 1988 and 2007. When benefit income is added, deciles two and three still experience slight reductions in their disposable income over the two decades, while deciles four and five show slight growth. The household income measure used in these estimates is “equivalised” which means that it is adjusted for the variation in living costs of households with different numbers of adults and children.

**Figure 9.12:** Market income falls between 1988 and 2007 for the first five disposable income deciles



**Figure 9.13:** With benefit income added, income for first four deciles still largely static between 1988 and 2007



Source: *The Treasury; Statistics NZ, Household Economic Survey*

Government policies to achieve saving objectives often work through these three channels, or they can simply use the power of the state to compel people to save. The paragraphs below outline the main policies that the New Zealand Government uses to achieve the saving objectives listed above.

#### *Current government pension policies*

Pension policies are an important subset of saving policies and are primarily aimed at achieving adequate income in retirement for the bulk of the older population. The typical OECD-country pension model is sometimes referred to as the three-tier system, where the tiers are:

- 1 A publicly provided pension
- 2 Mandatory personal retirement saving
- 3 Voluntary personal retirement saving.

New Zealand has tiers 1 and 3, with NZ Superannuation being the tier 1 scheme and KiwiSaver being a tier 3 scheme.

Tier 1 schemes are safety-net pensions, paid by the government. New Zealand's scheme – NZ Superannuation – is PAYGO. While age pensions are often income-tested, NZ Superannuation is universal, being available to all people over 65 who have been resident in New Zealand for 10 years or more. The level of NZ Superannuation is tied to wages, with the level of pension for a couple being equal to at least 66% of the net average wage. Because the cost of NZ Superannuation (as a percentage of GDP) will rise with population ageing, the Government has established a fund (the NZ Superannuation Fund) to partially pre-fund these future costs. This initiative inserts a modest SAYGO element in an otherwise PAYGO scheme and is also a small shift toward imposing the higher future costs on the generation that will create them.

KiwiSaver is a voluntary retirement savings scheme which also attracts contributions from employers and the government. Employees who join the scheme put at least 2% of their income into the scheme, and this is matched by a 2% contribution from their employers. Government makes an initial contribution of \$1000 when a person joins the scheme, and provides an annual tax credit of \$1042, provided that the person makes contributions of \$1042 or more over the year. The Government gives a tax concession for the employer KiwiSaver contributions but it does not provide reduced taxes for other saving schemes and in this respect New Zealand is unusual in the OECD.

The principal stated objective of KiwiSaver is to help people improve their incomes in retirement. This recognises that income from NZ Superannuation falls short of that needed to maintain pre-retirement consumption for many people. KiwiSaver also contributes to objective 1 by making enrolment and contribution a default option for new employees and by putting the task of looking after their investments in the hands of IRD and their KiwiSaver fund manager.

KiwiSaver is also likely to be contribute to several other of the objectives above:

- Higher national saving and reduced vulnerability (but the effect will be weaker to the extent that people simply switch their existing savings from other forms into KiwiSaver).
- As a SAYGO scheme it potentially improves the PAYGO-SAYGO balance and adds to household and national wealth and income.
- Financial markets will develop in size and sophistication as KiwiSaver funds grow.

While KiwiSaver may achieve some of the government's objectives it comes at the high fiscal cost of the subsidies to members (although these may be of similar order to tax concessions for long-term saving that are common in other countries). The SWG's overall assessment and recommendations with respect to KiwiSaver taking into account both benefits and costs are described in Section 7.3.4.

#### *Other government policies towards saving*

As covered elsewhere, *tax settings* affect the incentives to consume or save and in what form to save. The first key issue is the rate at which saved income (i.e., consumption in future periods) is taxed relative to income consumed now. An income tax base taxes future consumption more heavily than current consumption. This creates inter-temporal inefficiency and risks over-penalising saving. An expenditure base taxes current and future consumption at the same rate and is thus more neutral.

The second key issue is the relative taxation of different forms of saving such as bank deposits, bonds, equity or investing in residential property. Ideally, for economic efficiency, all forms of income from saving should be taxed at the same effective rate.

As explained in Section 7.2, the New Zealand system is a mixture of income taxes and expenditure taxes (GST and excise taxes). Compared with other OECD countries New Zealand is towards the income-tax end of the spectrum and therefore tends to tax income from saving more heavily. There are no tax concessions for personal saving, and no payroll taxes on labour income (other than the ACC levy). On the other hand, New Zealand has no formal capital gains tax and the government has recently increased GST and reduced income tax rates which have lightened the tax burden on saving. KiwiSaver subsidies and the reduced tax rates on income from PIEs are also positive for savers.



While neutrality and efficiency are highly regarded as tax-system objectives in New Zealand, there are some striking departures from them in the shape of large variations in the tax treatment of different forms of income from saving. At one extreme, capital gains are tax-free and nominal interest on debt is deductible; at the other, interest income and long-term returns to saving are taxed at very high effective rates.

In the interests of achieving objectives 1, 2 (in particular limiting misinformation about saving) and 6, the government has a range of *regulatory measures*. These include the Securities Act, the Reserve Bank Act, the Financial Advisors Act and legislation supporting KiwiSaver. The Government is currently undertaking an extensive programme of financial-regulation reform. There is little doubt that New Zealand's marketplace for financial products has needed a regulatory overhaul in the interests of better information and protection of savers at the same time as not stifling financial innovation or the ability of firms to access funding.

A final area of government policy aimed at saving objectives is financial education and financial literacy. The Office of the Retirement Commissioner plays an active role in this area, and there are various initiatives in play or under development including teaching financial literacy in schools.

#### *Guidelines for achieving the best outcome from changing saving policies*

This section examines how to approach the question of whether the current set of policies is the best that can be achieved or whether improvements are possible. In particular, if the government has a limited budget to devote to achieving its savings objectives, then how can it get the most value from these funds?

A sensible approach is to consider a range of options for changing the current policy settings. A policy change or a package of changes should be evaluated according to its benefits and costs. The saving objectives help to measure benefits while costs occur in a variety of forms such as administrative and compliance costs, the deadweight costs of distorting taxes, fiscal burdens, restrictions on personal freedoms, and inflexibility arising from restrictive regulations.

The following considerations offer guidance for changes in saving policies in light of strengths and weaknesses of current policy settings and opportunities and threats that are apparent in the current New Zealand situation.

- New Zealand has a more urgent problem with national savings, economic vulnerabilities and imbalances than with saving for retirement incomes.
- NZ Superannuation appears to be an economically and fiscally efficient scheme that is effective at protecting the retired population from poverty. It also provides a valuable annuity element in household portfolios. However, the adequacy of retirement saving is subject to the threat that NZ Superannuation is a largely a PAYGO scheme and its costs will rise with population ageing.
- Tax changes have the potential to increase national saving by reducing the taxes on saving (capital income). Their effectiveness in doing so improves with the extent that the overall tax burden stays constant or increases. Such reforms also incur no fiscal cost and may even offer the possibility of higher government saving (or lower dis-saving).
- There is scope to improve the quality of saving by evening up effective tax rates across the different types of assets than people can invest in.

- There may be a case to use tax incentives or subsidies to reduce the harmful compounding effects (and consequent distortions) of taxing the returns on long-term savings. But tax incentives should avoid generous benefits to high income earners who will already be saving and are most likely simply to switch their existing savings. There will be less switching when schemes target low- to middle-income people who have fewer offset opportunities.
- Given the importance of lifting national saving, incentives or subsidies should not be funded by a reduction in government saving.
- Given evidence on the effectiveness of behavioural mechanisms, and their low fiscal cost, policy designers should give them serious consideration. For example, KiwiSaver already incorporates pro-saving default settings but there are several ways that these could be strengthened.
- Making KiwiSaver compulsory offers the prospect of achieving a modest increase in national saving. The effect could be enhanced if the generosity of the present KiwiSaver subsidies were scaled back and used to reduce the government's deficit (or to stop it increasing as more people draw the subsidies). The downsides of compulsion are its inflexibility for people who would be better off saving in another form or at another time, and the probable need to keep some level of subsidy in order for compulsion to be acceptable.
- As some of the points above indicate, there are important links between household and government saving that policies need to take into account. One relationship is that of partial Ricardian equivalence whereby around one half of any increase in government saving could be offset by lower household saving. There are also links between household and business saving that need to be taken into account.
- Regulatory settings are particularly important for saving given the long time periods involved, the complexity of saving decisions and management, and the importance of confidence for people's willingness to save and invest. The high level of recent activity in this area is justified given revealed deficiencies in financial markets (both nationally and internationally) and the potential to help savers benefit from an efficient, sustainable industry with low fees and high levels of disclosure.
- Stability in saving policy and institutions is very important for confidence and behaviour. This suggests a high bar before departing radically from current policy settings. An evolutionary approach with changes based on a sustainable consensus and signalled well in advance is likely to be optimal.
- Property booms have had deleterious effects on saving rates in New Zealand's recent past and have contributed to poorly diversified and unbalanced portfolios for many savers. Saving policies should be designed as far as possible to reduce rather than stimulate the demand for property.

- Saving policies need to “look through” average saving rates to examine stocks of wealth and debt since two countries with similar average saving rates can differ greatly in their wealth profiles. New Zealanders’ incomes are significantly reduced (relative to GDP) owing to high levels of external liabilities. Policies that shift from PAYGO to SAYGO (with savings accumulating in public or private funds) are part of the answer to raising the future income and wealth of New Zealanders.

## 9.5 The impacts of KiwiSaver on saving (7.3)

### *The Australian experience*

One way of seeing what a compulsory KiwiSaver scheme might do for saving is to look at what has happened in Australia. Australia has had compulsory superannuation as a tier 2 scheme for around 20 years now. Australia also has a tier 1 pension, but unlike New Zealand’s, this is means tested. Also, all of the regular contributions to the superannuation scheme are paid by employers, unlike the situation in New Zealand for KiwiSaver where contributions are paid by both employees and employers, with a tax credit contribution from government. Employers’ contributions in Australia are currently set at 9% of an employee’s wages.

The definitive study on how the tier 2 scheme has affected household saving still seems to be Connolly and Kohler (2004). They found that that of every dollar contributed to the scheme, around 50 to 60 cents of this was additional household saving. The remainder of the contribution was due to “reshuffling” with households transferring saving that was formerly done in other areas into superannuation. The authors found that in 2001/02 household saving would have been around 1.5 to 2.0% of GDP lower if the compulsory superannuation scheme had not been in place.

We have used the Connolly and Kohler methodology to get an estimate for 2008/09.<sup>48</sup> The additional saving is estimated at around 2.3% of GDP. However, this is the increase in household saving, not national saving. The impact on national saving is likely to be lower, since government provides taxation concessions for superannuation contributions, taxing them at only 15% compared to normal marginal rates, which would probably average somewhere around 30%. These tax concessions were equal to around 1.5% of GDP in 2008/09. So if the tax concessions resulted in government saving being lower by 1.5% of GDP, then the final impact on national saving would be 0.8% (2.3% minus 1.5%).<sup>49</sup>

Even if the impact on national saving was only 0.8% of GDP, then the impact would still be substantial. This would mean that the annual current account balance was 0.8% of GDP higher than it would have otherwise been, and this would have a similar impact on net foreign assets. Over a 10-year period, net foreign assets, as a share of GDP, would have been 8% of GDP higher than they would have been without the compulsory superannuation scheme.<sup>50</sup>

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<sup>48</sup> See Savings Working Group Secretariat (2011a).

<sup>49</sup> However, the concessions may not have necessarily resulted in government saving being lower by 1.5% of GDP. For if the government had not given the concessions, it may have spent the additional revenue rather than saving it. To the extent that this would have happened the effect on national saving would have been larger. For example, suppose the government had spent one third of the additional revenue and saved two thirds of it. The increase in national saving from the scheme would have been 1.3% of GDP (2.3% minus 1.0%).

<sup>50</sup> There may also be an additional impact on net foreign assets from the accumulated earnings from this extra saving.

Australia's net foreign assets are currently around minus 58% of GDP, compared with New Zealand's minus 85%. However, there are likely to be other factors besides superannuation which account for the difference between the two countries.

It might be argued that the biggest impact from the Australian superannuation on national saving is yet to come. As noted earlier, the Australian tier 1 pension is means tested. At present only 55% of people over 65 get a full tier 1 pension, with the remainder getting part pensions or no pensions. However, as the superannuation scheme matures and a larger proportion of the population receive substantial retirement incomes from this source, the proportion of the population getting a tier 1 pension will decline. By 2050, it is estimated that only 28% of the population over 65 will be receiving a full tier 1 pension. This means that government spending will be substantially lower than it would have been without the compulsory superannuation scheme.<sup>51</sup>

Another positive aspect of Australia's compulsory scheme is that a high proportion of savings is directed via financial institutions. This is likely to result in better performing investments than those made by the household sector directly. For example, the scheme provides a channel by which the household sector can tap into higher earnings in overseas economies. Overall, the Australian scheme probably results in higher returns for households relative to those achieved by New Zealand households.

#### *The estimated impact of KiwiSaver on saving*

Results from a survey of KiwiSaver members undertaken in March 2010 indicate that just under 40% of the contributions being made by members are truly additional saving with the rest being due to reshuffling of other types of saving.<sup>52</sup> We used this number to estimate KiwiSaver's impact on household saving.

We did this for a number of scenarios.<sup>53</sup> In the base scenario – scenario A – it was assumed that contributions to KiwiSaver remained as they are now – 2% from the employee, 2% from the employer, and a contribution from government that matches the employee's contribution, up to a maximum of \$1043 per year. It was assumed that the KiwiSaver membership rate would rise to 60% of all employed persons. It is currently around 40%. The 60% level was thought to be a reasonable assumption regarding the maximum rate for a voluntary saving scheme.

The results showed that KiwiSaver contributions to household saving were equal to 1.7% of GDP. However, this included employer and government contributions and tax credits as well as household contributions.<sup>54</sup> In terms of "truly additional" household saving – estimated as 40% of the household sector's contributions – this was equal to only 0.2% of GDP (Table 6). This is the impact of the household sector's contributions on national saving.

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<sup>51</sup> See Savings Working Group Secretariat (2011a).

<sup>52</sup> See Scobie, Law *et al* (forthcoming). Note the figure of 40% is not strictly comparable with the Australian figure, which relates to employers' contributions.

<sup>53</sup> See Savings Working Group Secretariat (2011b).

<sup>54</sup> Government contributions are tax credits; we do not include kick-start contributions in this analysis.

It will also be the total impact on national saving if we assume that the contributions to KiwiSaver from both government and employers do not affect national saving. This assumption assumes that in the government's case, for example, the government's KiwiSaver contributions result in a rise in household saving but that this is offset by corresponding decline in government saving. Hence there is no impact on national saving. The situation is similar regarding employers contributions.

However, we tried using an alternative assumption, on the basis that both the government's and employers' contributions to KiwiSaver will result in changes to government and business consumption as well as saving.<sup>55</sup> This resulted in a significantly higher figure for the impact on national saving – 0.8% of GDP. However, in view of the uncertainty regarding the assumptions behind this result it was decided to use results based on the initial approach in comparing scenarios.

Given that government's contributions to KiwiSaver in scenario A are equal to around 0.5% of GDP there is a question as to whether government would be better off saving this money directly – for example by paying down government debt – rather than putting it into KiwiSaver. However if government spent this money rather than saved it, this would end up actually reducing national saving.

**Table 6: KiwiSaver scenarios**

| Unless stated otherwise, all figures are % of GDP | A   | B    | C    |
|---|-----|------|------|
| <b>Main assumptions:</b>                          |     |      |      |
| KiwiSaver membership, % of total employed         | 60% | 100% | 100% |
| Employees' contribution rate, % of wages          | 2%  | 2%   | 4%   |
| <b>Results:</b>                                   |     |      |      |
| Total household contributions                     | 0.6 | 1.1  | 2.1  |
| "Additional" household contributions              | 0.2 | 0.4  | 0.8  |
| Impact on net foreign assets after 10 years       | 2.4 | 3.9  | 7.9  |
| Impact on net foreign assets after 20 years       | 4.7 | 7.9  | 15.7 |
| <b>Memo items:</b>                                |     |      |      |
| Government's contributions via tax credit         | 0.5 | 0.9  | 0.9  |
| Tax concession on employer contributions          | 0.2 | 0.3  | 0.3  |
| Total cost to government                          | 0.7 | 1.2  | 1.2  |
| Alternative calculation of "additional" saving    | 0.6 | 1.0  | 1.4  |

Source: SWG Secretariat

We also looked at a compulsory scenario – scenario B – with the KiwiSaver membership rate set at 100% of the employed. This lifted the impact on national saving from 0.2% to 0.4% of GDP. This is still not large, but it would increase net foreign assets by around 4% of GDP over a 10-year period and 8% of GDP over a 20-year period.

With compulsion, government contributions can be dropped, since they are no longer needed in order to make joining KiwiSaver attractive. Dropping these contributions does not affect our estimates of the impact on national saving, since the assumption is that the resulting fall in household saving will be offset by a rise in government saving. As noted above though, this may not be the case in reality.

<sup>55</sup> We assume that the decline in government saving is equal to only two thirds of its KiwiSaver contributions, with the other third being paid for through lower government consumption. The same assumption is made regarding employers' contributions.

In another compulsory scenario – scenario C – we increased the employees' contribution rate to 4% of income. This lifted the impact of contributions on national saving to 0.8% of GDP. This would increase net foreign assets by around 8% of GDP over a 10-year period and 16% of GDP over a 20-year period.

Note that we have looked here at only the impact of household contributions on national saving and net foreign assets. There is another effect on national saving over and above this. This is the effect of investment earnings from the household sector's "additional" contributions. These investment earnings are in fact a part of total household saving (the flow measure). Also, there is a compounding effect with respect to these earnings since they are reinvested by superannuation funds.

The extent to which these compounded earnings affect household saving and national saving will depend crucially on the returns that superannuation funds produce and the fees that they charge. Relatively small changes in each of these can have large impacts on the size of the funds over the long term. This is behind the SWG's view that it is important to focus on developing a low-cost default scheme where KiwiSaver members are matched to the most appropriate type of fund for their age.

More work is needed in order to assess accurately the possible impact of KiwiSaver earnings on household saving, and on national saving and net foreign assets.

It seems that in its present form, KiwiSaver is basically an adjunct to NZ Superannuation, not a replacement for it. The Treasury has estimated the value of the annuity that a KiwiSaver member on the average male wage could buy with his KiwiSaver fund at the end of a 40-year working life. With employee and employer contributions at 2%, the annuity would be equal to around only 17% of the person's wages in the final year of work (Savings Working Group Secretariat 2011c). Clearly the level of aggregate contributions would have to rise substantially, if KiwiSaver was going to become the major vehicle for providing retirement pensions (and potentially creating the opportunity to scale back the universal pension).

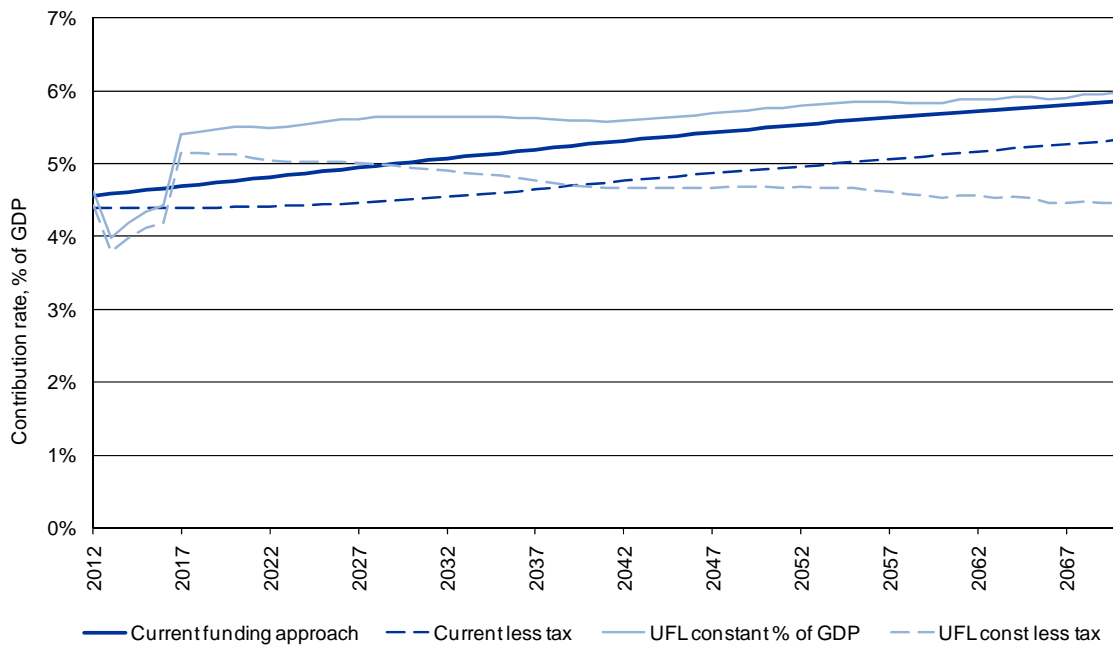
## 9.6 Other approaches to partially prefunding the NZ Superannuation Fund (7.3)

This section shows that the current funding method for the NZ Superannuation Fund is insufficient to control the liabilities of the scheme relative to GDP. If the unfunded liability is treated as a government liability, the government net savings position will deteriorate under the current funding method.

If the government were to adopt a SAYGO approach to funding NZ Superannuation, the funding rate for new entrants to the workforce would be quite low, between 1% and 2% of GDP (using Treasury's NZSF funding model). However, there would be a large unfunded liability (UFL) for existing members of the workforce.

The cost of amortising the unfunded liability over any reasonable period is high. However, one approach that is often used for pension schemes is to contribute to the fund an amount equal to the valuation rate of interest on the unfunded liability so that the unfunded liability stays constant in nominal terms. Keeping the NZ Superannuation unfunded liability constant in nominal terms is also expensive, but a more realistic option would be to keep it constant as a share of GDP. Indeed, if we don't, we are incurring an increasing liability that must contribute to the same problems as a high NFL. (This is why the projected contribution rate in Figure 9.14 is increasing: the total contribution rate is less than the funding rate for new entrants plus the amount required to keep the unfunded liability constant as a share of GDP.)

**Figure 9.14:** Contribution rate to NZSF under current funding approach is rising as a GDP share<sup>56</sup>



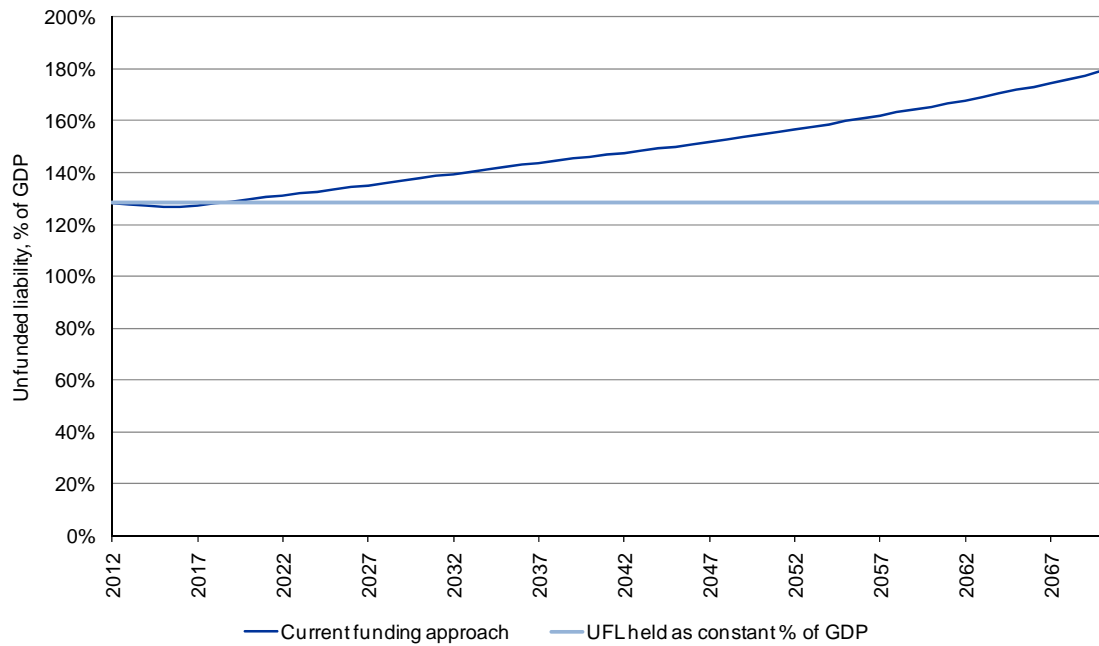
Source: SWG calculations

Figures 9.14, 9.15 and 9.16 compare the current funding method with a funding approach that holds the UFL constant as a percentage of GDP. Because the fund is taxed, the net cost to the government is the contribution rate less tax receipts from the fund, shown by the dashed lines in Figure 9.14. Note that the contribution rate required to hold the UFL constant relative to GDP does not increase as fast as the current method (after the short-term projection effect).

Figure 9.15 shows that under the current funding scheme the UFL increases over time: the contributions are insufficient both to fund new entrants and to keep the UFL constant as a share of GDP.

<sup>56</sup> For this and the following two figures, we assume that investment earnings are taxed (current policy).

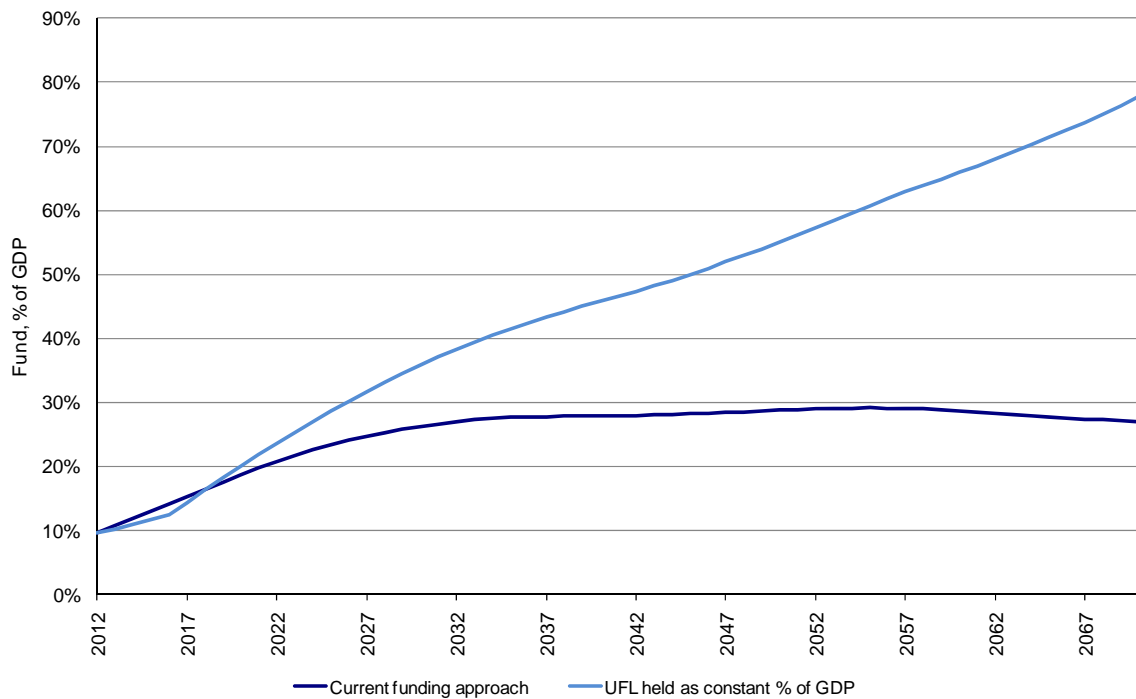
**Figure 9.15:** Under current funding, the contribution rate is not enough to fund new entrants and keep UFL a flat share of GDP



Source: SWG calculations

Because the contributions are higher when the UFL is stabilised, the fund grows more quickly, as shown in Figure 9.16.

**Figure 9.16:** For UFL to be a stable share by 2050, the Fund size needs to double compared with the current approach

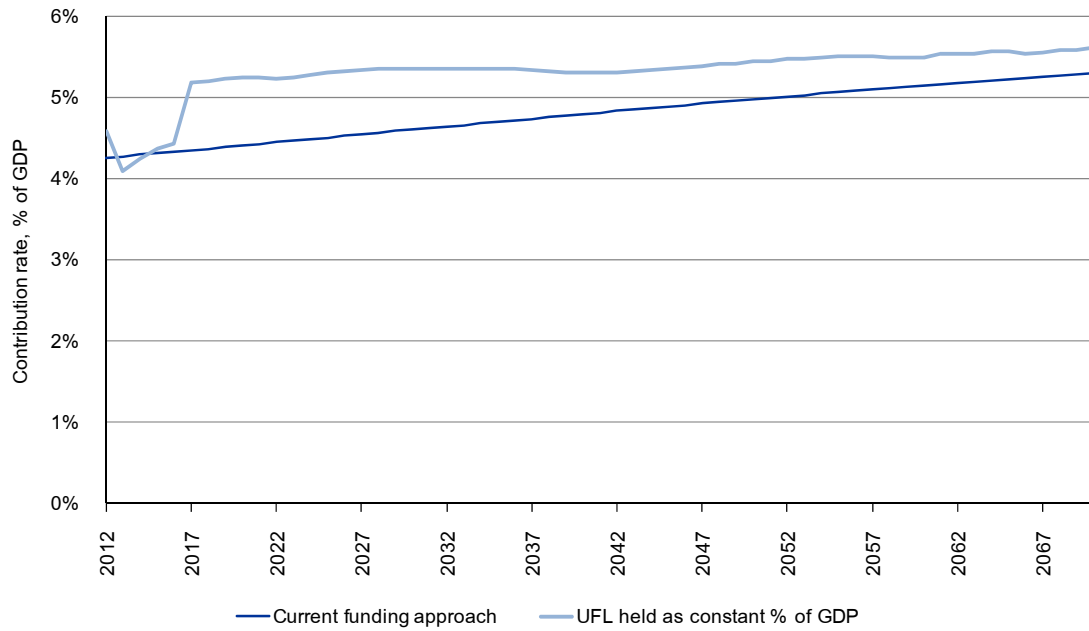


Source: SWG calculations



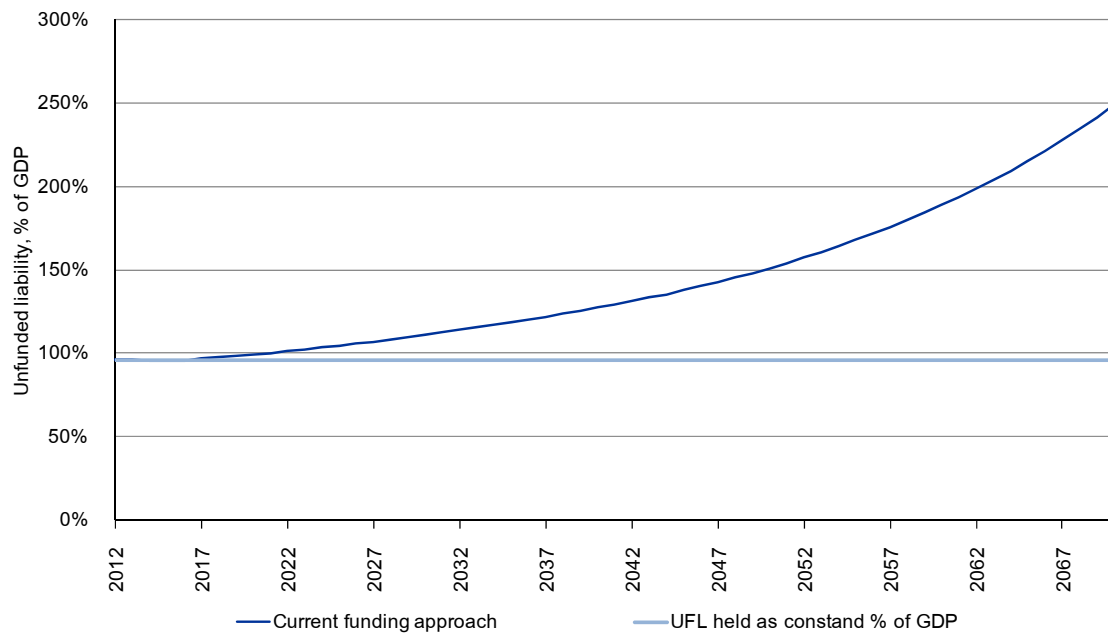
Figures 9.17, 9.18 and 9.19 show the growth of the Fund, if it was not taxed. Contributions are lower, and the Fund grows much larger. Note that if investment earnings are not taxed, the UFL under the current funding scheme grows much larger than under the current arrangement.

**Figure 9.17:** With earnings not taxed, contributions are smaller to hold UFL as a fixed GDP share



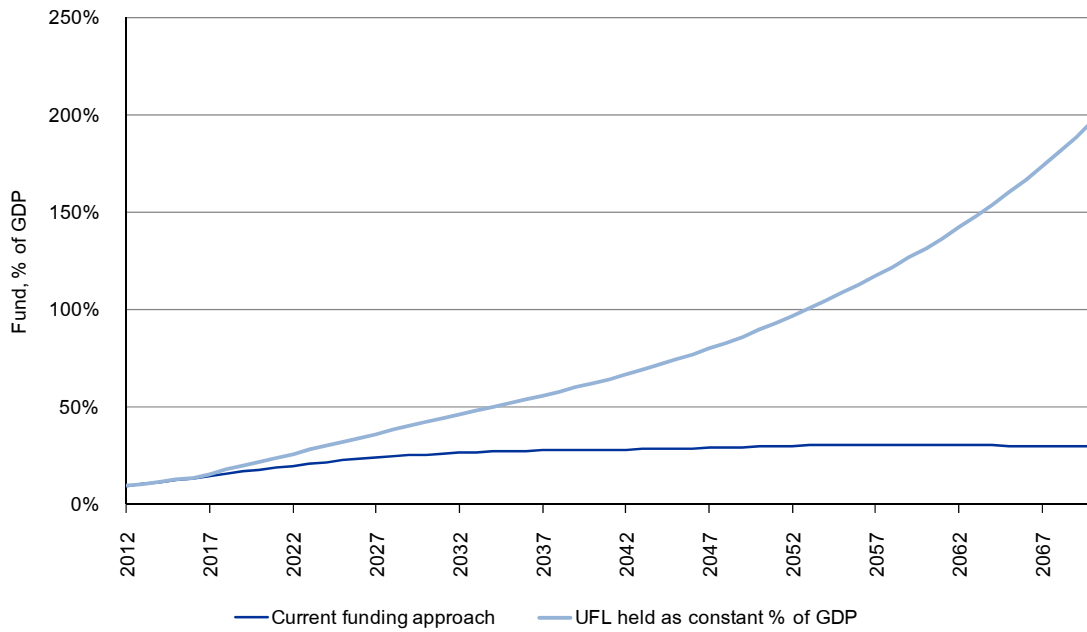
Source: SWG calculations

**Figure 9.18:** With earnings not taxed, the UFL as a GDP share is about a third smaller than in the taxed case



Source: SWG calculations

**Figure 9.19:** With earnings not taxed, by 2070 the Fund more than doubles compared with taxed case



Source: SWG calculations

This analysis shows that the current funding method is insufficient to control the liabilities of the scheme relative to GDP. Treating the UFL as a government liability (as would be the case for a company under current accounting conventions), the government’s net savings position will deteriorate under the current funding method.

This position could be rectified by:

- 1 Making the NZ Superannuation Fund tax exempt. Stabilising the UFL relative to GDP would require a total contribution rate not much higher than the current rate. The net revenue effect to the government would be changed only by timing.
- 2 Perhaps introducing a dedicated social security tax (with an offset to ordinary income tax) equal to the new entrant fund rate. This rate would be about 4.2% of the average wage for all employed persons (this has been adjusted for those not in the work force) using Treasury assumptions, equivalent to 2.4% of GDP. The funding rate for new entrants would be 2% of the average wage, equivalent to 1.1% of GDP. The remaining contributions would be paid by the government as at present. A social security tax would create a discipline of continuing to save regardless of the fiscal position, and current anomalies in the benefit formula could more easily be repaired.

# 10 Terms of Reference for the Savings Working Group

## Background

Savings and capital formation is an essential part of any economy. There has long been debate about savings policy in New Zealand, most often focussed on whether national savings are "adequate" and whether the resulting stock of investments is appropriately allocated and delivering what it should. In addition, New Zealand has experienced a current account deficit in each year since 1973, implying that national investment has continuously exceeded national saving. Net external liabilities are large and have been rising rapidly over recent years. Budget 2010 projections show net external liabilities growing from just under 90% of GDP to exceed 100% by 2014, continuing to rise thereafter. To address this, it is critical that New Zealand increase national savings. As well as helping to address imbalances, higher levels of savings and better allocated savings are likely to benefit economic growth and investment performance.

A Working Group of independent members (Chair plus six members) will be convened to provide a report to the Minister of Finance on these issues. The intention of this Working Group is to provide high level advice on options that would help deliver better functioning domestic savings performance. Improved savings performance helps address imbalances and can improve economic growth and investment performance. This advice will cover broad options available, including the advantages and disadvantages in respect to each of the areas above.

## Aims

The aims of this process are:

- to provide a point of reference for the Government as it develops its medium-term savings strategies, and
- to stimulate a public discussion on issues of national saving in the New Zealand economy, linking this discussion to investment and growth.

In particular, it is expected that the Group will consider:

- Fiscal policy – the role of Government saving as an important component of national saving, including potential long-term saving/debt targets and any offset between Government and private saving.
- Taxation – the impact of the tax system, particularly taxation of capital income, on the level and composition of national saving and investment decisions, and options for improvement. These will include, but are not limited to:
  - The case for moving to a dual income tax system, whereby labour and capital income might be taxed at separate rates
  - Indexation or partial-indexation of the tax system so that real, rather than nominal, income is taxed.

- KiwiSaver – the role of KiwiSaver in improving national saving outcomes. This will include, but is not limited to:
  - Considering options to improve the operation and outcomes of KiwiSaver. This will include options where KiwiSaver is both voluntary and compulsory, and
  - The fairness and effectiveness of current KiwiSaver subsidies.

The Group is also likely to cover other areas it considers of importance to national saving.

This process is seen as a key part of preparing the background for examination of savings issues by Ministers. It has not been designed to lead to specific recommendations: rather it is to allow identification and discussion of the issues that Ministers will need to consider in their considerations of savings strategies.

## Out of Scope

The Group is not expected to discuss the parameters of New Zealand Superannuation or other specific forms of benefits/income support (which are currently being addressed by the Welfare Working Group). While it can consider overall fiscal policy in the context of national saving, is not expected to provide comment on the merits of individual spending areas. The Government has also recently said that it will not introduce broad and widespread taxation of capital gains or land.

## Format

The Treasury will produce a public Treasury Discussion Document in August 2010. This will provide a basis for discussion around primary issues and trends. Further background information will be provided on issues of particular interest to the Working Group.

The final report of the Working Group and the initial Treasury Discussion Document will be published on a website.

Other Working Group updates or background information may also be published.

## Timing

|   |   |
|---|---|
| <p>Publication of a Treasury Discussion Document in late-August 2010</p>                  | <p>This document will explore the range of issues and options that are relevant to medium-term policy in relation to saving in New Zealand, including economic growth, macroeconomic vulnerability, fiscal policy, taxation and KiwiSaver.</p>  |
| <p>Working Group meetings, around six meetings in total, starting in late August 2010</p> | <p>While this is up to Working Group members, the likely format will be a series of sessions between September and December. These will probably break the project into its various topic areas. The Group will consider material prepared by the Secretariat and any outside work it wishes to commission.</p> |
| <p>Draft report prepared by December 2010</p>   | <p>The report will summarise discussion to date and outline policy options.</p> <p>A final working session open to the public will cover the substantive discussion to date and tentative conclusions.</p>  |
| <p>Working Group reports to the Government by the end of January 2011.</p>                |   |

## Composition of the Working Group

The Working Group will comprise a maximum of six people in addition to the Chair, chosen and appointed by the Minister of Finance on the basis of their authority, knowledge of the issues addressed in the Treasury Discussion Document and ability to articulate the issues to a wide audience.

## Expectations on Working Group Members

Working Group members will be expected to commit to six meetings between August and January, along with preparation, including each member acting as a formal discussant on the Treasury Discussion Document. The Group as a whole will not necessarily be expected to form a consensus on all areas in their final report. Where there is no consensus, the report should cover the areas of disagreements and the major competing arguments.

The Chair of the Working Group will be expected to facilitate the interaction of the Working Group and to compile the Working Group's report, with assistance from the secretariat. The Chair will also take the lead on external engagement in relation to the deliberations of the Working Group.

## Resources

The Chair will be supported by a Secretariat, mainly from within Treasury to assist with facilitating the interactions of the Working Group and with drafting the report under direction of the Chair. Treasury will also provide communications support.

## Output

The primary output will be the final report to Government, which will be published. The Working Group is expected to make papers it receives publicly available after each session.

# 11 List of submissions

The following individuals and organisations made submissions to the SWG from September to December 2010. The submissions can be downloaded from the website

<http://www.treasury.govt.nz/publications/reviews-consultation/savingsworkinggroup/submissions/index.htm>.

AMP Financial Services and AMP Capital Investors  
Andrew Scott – Whai Rawa and Direct Distributions: Te Rūnanga o Ngāi Tahu  
ANZ New Zealand  
Aon New Zealand  
ASB Bank Limited  
Blair Pritchard  
Business New Zealand  
Corporate Taxpayers Group  
Dave Eskildsen  
David Child-Dennis  
Don Brash  
Douglas May  
Eriksen & Associates Ltd  
Federated Farmers of New Zealand  
Fidelity Life  
Gary Brown  
Government Superannuitants Association  
Guardians of New Zealand Superannuation  
Institute of Finance Professionals New Zealand Inc.  
Investment Savings & Insurance Association of NZ Inc.  
JBWere Investment Strategy Research  
Jens Meder  
John Patrick O'Sullivan  
Kiwibank Limited  
Leigh Harkness  
Len Bayliss  
MCA NZ Limited  
Mercer (NZ) Limited  
Michael Littlewood  
New Zealand Business Roundtable  
New Zealand Council of Trade Unions  
Property Council New Zealand  
Reserve Bank of New Zealand  
Trustee Corporations Association  
William Hughes-Games  
Workplace Savings NZ  
Young Enterprise Trust

## 12 References

- Antolin, Pablo and Erika Lopez Ponton (2007) "The impact of tax incentives on retirement savings: A literature review." *OECD/IOPS Global Private Pensions Forum*, (Beijing)  
<<http://www.oecd.org/dataoecd/60/20/40332454.pdf>>
- Arnum, Hans, Thomas Dohrmann, John Dowdy and Allison Phillips (2009) "Government's productivity imperative." *McKinsey on Government* 4: 4-9.  
<[http://www.mckinsey.com/client-service/public-sector/pdf/TG\\_MoG\\_Issue4\\_productivity.pdf](http://www.mckinsey.com/client-service/public-sector/pdf/TG_MoG_Issue4_productivity.pdf)>
- Atkinson, Tony (2005) "Atkinson review: Final report - Measurement of government output and productivity for the National Accounts." Office for National Statistics,  
<[http://www.statistics.gov.uk/about/data/methodology/specific/publicSector/atkinson/final\\_report.asp](http://www.statistics.gov.uk/about/data/methodology/specific/publicSector/atkinson/final_report.asp)>
- Attanasio, Orazio and Matthew Wakefield (2010) "The effects on consumption and saving of taxing asset returns." in J Mirrlees, S Adam, T Besley, R Blundell, S Bond, R Chote, M Gammie, P Johnson, G Myles and J Poterba eds: Oxford University Press): 675-736.  
<<http://www.ifs.org.uk/mirrleesReview/dimensions>>
- Australian Productivity Commission (2006) "Economic impacts of migration and population growth."  
<<http://www.pc.gov.au/projects/study/migrationandpopulation/docs/finalreport>>
- Banks, James and Peter Diamond (2010) "The base for direct taxation." in J Mirrlees, S Adam, T Besley, R Blundell, S Bond, R Chote, M Gammie, P Johnson, G Myles and J Poterba eds *Dimensions of Tax Design: the Mirrlees Review*: Oxford University Press): 548-674.  
<<http://www.ifs.org.uk/mirrleesreview/dimensions/ch6.pdf>>
- Barr, Nicholas and Peter Diamond (2008) *Reforming Pensions : Principles and Policy Choices*. (Oxford: Oxford University Press).
- Barro, Robert J (2006) "Rare disasters and asset markets in the twentieth century." *Quarterly Journal of Economics* 121(3): 823-866.
- Barro, Robert J and Jose F. Ursua (2008) "Consumption disasters in the twentieth century." *American Economic Review: Papers and Proceedings* 98(2): 58-63.
- Barro, Robert J. and Tao Jin (2009) "On the size distribution of macroeconomic disasters." National Bureau of Economic Research, NBER Working Paper No. 15247,  
<<http://www.nber.org/papers/w15247>>
- Bernheim, Douglas B (2002) "Taxation and saving." in AJ Auerback and M Feldstein eds *Handbook of Public Economics*: Elsevier): 1173-1249.
- Blackmore, Tim, Tim Stevenson and Anne Gooch (2003) "Formative evaluation of MFO project support for departments & stakeholders for the 2002-03 year." Wellington, State Services Commission,  
<[http://www.ssc.govt.nz/upload/downloadable\\_files/Formative\\_Evaluation\\_MfO\\_Project\\_Support.pdf](http://www.ssc.govt.nz/upload/downloadable_files/Formative_Evaluation_MfO_Project_Support.pdf)>
- Bordo, Michael D. (2006) "Sudden stops, financial crises, and original sin in emerging countries: Deja vu?" Working Paper Series No. 12393, <<http://www.nber.org/papers/w12393>>

- Bosworth, Barry P., Ralph C. Bryant and Gary Burtless (2004) "The impact of aging on financial markets and the economy: A survey." Boston, Center for Retirement Research at Boston College, CRR WP 2004-23, <[http://crr.bc.edu/images/stories/Working\\_Papers/wp\\_2004-23.pdf](http://crr.bc.edu/images/stories/Working_Papers/wp_2004-23.pdf)>
- Claus, I and G M Scobie (2002) "Saving in New Zealand: Measurement and trends." Wellington, The Treasury, Working Paper 02/02, <<http://www.treasury.govt.nz/publications/research-policy/wp/2002/02-02>>
- Coleman, Andrew (2010) "PAYGO vs. SAYGO: prefunding government-provided pensions, report prepared for the Savings Working Group." <<http://www.treasury.govt.nz/publications/reviews-consultation/savingsworkinggroup>>
- Coleman, Andrew and John Landon-Lane (2007) "Housing markets and migration in New Zealand: 1962-2006." Wellington, Reserve Bank of New Zealand, Discussion Paper DP2007/12, <[http://www.rbnz.govt.nz/research/discusspapers/dp07\\_12.pdf](http://www.rbnz.govt.nz/research/discusspapers/dp07_12.pdf)>
- Colmar Brunton (2010) "KiwiSaver evaluation: survey of individuals (technical report)." <<http://www.ird.govt.nz/aboutir/reports/research/report-ks/research-ks-evaluation-report.html>>
- Connolly, Ellis and Marion Kohler (2004) "The impact of superannuation on household saving." Reserve Bank of Australia, Research Discussion Paper 2004-01, <<http://www.rba.gov.au/publications/rdp/2004/pdf/rdp2004-01.pdf>>
- Crown Ownership Monitoring Unit (2010) "2010 annual portfolio report." Wellington, New Zealand Government, <<http://www.comu.govt.nz/publications/annual-portfolio-report/2010/>>
- Diamond, Peter A., Alan J. Auerbach and William G. Gale (1997) "Macroeconomic aspects of social security reform." *Brookings Papers on Economic Activity* 1997(2): 1-87.
- DTZ New Zealand (2007) "The future of home ownership and the role of the private rental market in the Auckland region." Centre for Housing Research Aotearoa New Zealand,
- Ellis, Luci (2005) "Disinflation and the dynamics of mortgage debt." in Bank for International Settlements ed *Investigating the Relationship between the Financial and Real Economy*: 5-20.
- Ezra, Don, Bob Collie and Matthew X Smith (2009) *The Retirement Plan Solution: The Reinvention of Defined Contribution*. (New Jersey: Hoboken).
- Farhi, Emmanuel, Samuel Paul Fraiberger, Xavier Gabaix, Romain Ranciere and Adrien Verdelhan (2009) "Crash risk in currency markets." National Bureau of Economic Research, NBER Working Paper No. 15062, <<http://www.nber.org/papers/w15062>>
- Farhi, Emmanuel and Xavier Gabaix (2008) "Rare disasters and exchange rates." National Bureau of Economic Research, NBER Working Paper No. 13805, <<http://www.nber.org/papers/w13805>>
- Gaudin, A. and R. Wong (2006) "Review of the current state of the Ministry of Health: as at 13 December 2006." Wellington, Ministry of Health,
- Gibson, J K and G M Scobie (2001) "Household saving behaviour in New Zealand: a cohort analysis." Wellington, The Treasury, Working Paper 01/18, <<http://www.treasury.govt.nz/publications/research-policy/wp/2001/01-18>>



- Hodgetts, Bernard, Phil Briggs and Mark Smith (2006) "Household saving and wealth." Wellington, Reserve Bank of New Zealand, <<http://www.rbnz.govt.nz/research/workshops/14nov06/2895716.pdf>>
- Hodgson, Rob and Jacques Poot (2010) "New Zealand research on the economic impacts of immigration 2005-2010 - Synthesis and research agenda." Wellington, Department of Labour, <<http://www.dol.govt.nz/publications/research/synthesis-research/>>
- IMF (2010a) "New Zealand: 2010 Article IV Consultation—Staff Report." International Monetary Fund, IMF Country Report No. 10/144, <<http://www.imf.org/external/pubs/cat/longres.aspx?sk=23905.0>>
- IMF (2010b) "New Zealand: Selected Issues Paper." International Monetary Fund, Country Report No. 10/145, <<http://www.imf.org/external/pubs/cat/longres.aspx?sk=23906.0>>
- Lane, Philip R. and Gian Milesi-Ferretti (2001) "Long-term capital movements." National Bureau of Economic Research, Working Paper Series No. 8366, <<http://www.nber.org/papers/w8366>>
- Le, Trinh, John Gibson and Steven Stillman (2010) "Household wealth and saving in New Zealand: Evidence from the longitudinal Survey of Family, Income and Employment." Wellington, Motu Economic & Public Policy Research, Working Paper 10-06, <[http://www.motu.org.nz/publications/detail/wealth\\_and\\_saving](http://www.motu.org.nz/publications/detail/wealth_and_saving)>
- Le, Trinh, Grant Scobie and John Gibson (2007) "Are Kiwis saving enough for retirement?", Paper presented to the 8th Annual SuperFunds Summit, Wellington, 15-16 March.
- Le, Trinh, Grant M. Scobie and John K. Gibson (2009) "Are Kiwis saving enough for retirement: evidence from SoFIE." *New Zealand Economic Papers* 43(1): 3-20.
- Lindbeck, Assar and Mats Persson (2003) "The gains from pension reform." *Journal of Economic Literature* 41(1): 74-112.
- Makin, A.J., W. Zhang and G.M. Scobie (2008) "The contribution of foreign borrowing to the New Zealand economy." Wellington, The Treasury, Working Paper 08/03, <<http://www.treasury.govt.nz/publications/research-policy/wp/2008/08-03/>>
- McCulloch, Brian and Jane Frances (2001) "Financing New Zealand Superannuation." Wellington, The Treasury, Working Paper 01/20, <<http://www.treasury.govt.nz/publications/research-policy/wp/2001/01-20>>
- McDonald, Kerry (2007) "The critical role of leadership in the New Zealand state sector." *Victoria University of Wellington Policy Quarterly* 2/3: 3-10.
- New Zealand Government (1989) "Consultative document on the taxation of income from capital."
- New Zealand Government (2010) "2010 investment statement of the New Zealand Government." Wellington, New Zealand Government, <<http://www.treasury.govt.nz/budget/2010/is>>
- New Zealand Network for Financial Literacy (2011) "National Strategy for Financial Literacy: Savings working group update." <<http://www.treasury.govt.nz/publications/reviews-consultation/savingsworkinggroup/background>>

- OECD (2009) "Pensions at a glance 2009: Retirement income systems in OECD countries."  
<[www.oecd.org/els/social/pensions/PAG](http://www.oecd.org/els/social/pensions/PAG)>
- Perry, Bryan (2010) "Household incomes in New Zealand: Trends in indicators of inequality and hardship 1982 to 2009." Wellington, Ministry of Social Development, <<http://www.msd.govt.nz/about-msd-and-our-work/publications-resources/monitoring/household-incomes/index.html>>
- Reinhart, Carmen M. and Kenneth S. Rogoff (2009) "The aftermath of financial crises." National Bureau of Economic Research Working Paper Series No.14656,  
<<http://www.nber.org/papers/w14656>>
- Reinhart, Carmen M. and Kenneth S. Rogoff (2010) "Growth in a time of debt." *American Economic Review* 100(2): 573-578.
- Retirement Commission (2010) "2010 review of retirement income policy." Wellington, Retirement Commission, <<http://www.retirement.org.nz/retirement-income-research/policy-review/2010-review>>
- Retirement Policy Research Centre (2010) "Household wealth in Australia and New Zealand." Auckland, Retirement Policy Research Centre, RPRC Pension Briefing 2010-5,  
<<http://www.business.auckland.ac.nz/LinkClick.aspx?fileticket=GmWmVrwOIVl%3d&tabid=1266>>
- Rietz, Thomas A. (1988) "The equity risk premium a solution." *Journal of Monetary Economics* 22(1): 117-131. <<http://www.sciencedirect.com/science/article/B6VBW-47N61RY-7/2/1f4f33cf15ba50056c0494e00688a215>>
- Savings Working Group Secretariat (2011a) "Australia - superannuation and the household sector." Wellington, Savings Working Group Secretariat, <<http://www.treasury.govt.nz/publications/reviews-consultation/savingsworkinggroup/background>>
- Savings Working Group Secretariat (2011b) "KiwiSaver and national saving." Wellington, Savings Working Group Secretariat, <<http://www.treasury.govt.nz/publications/reviews-consultation/savingsworkinggroup/background>>
- Savings Working Group Secretariat (2011c) "KiwiSaver fund accumulations." Wellington, Savings Working Group Secretariat, <<http://www.treasury.govt.nz/publications/reviews-consultation/savingsworkinggroup/background>>
- Schelling, Thomas C. (1984) "Self-command in practice, in policy, and in a theory of rational choice." *The American Economic Review* 74(2): 1-11.
- Scobie, Grant M and Katherine Henderson (2009) "Saving rates of New Zealanders: A net wealth approach." Wellington, The Treasury, Working Paper 09/04,  
<<http://www.treasury.govt.nz/publications/research-policy/wp/2009/09-04/>>
- Scobie, Grant M., John Gibson and Trinh Le (2004) "Saving for retirement: New evidence for New Zealand." New Zealand Treasury Working Paper 04/12,  
<<http://www.treasury.govt.nz/publications/research-policy/wp/2004/04-12>>
- Scobie, Grant M., David Law and Lisa Meehan (forthcoming) "KiwiSaver evaluation: analysis of the survey of individuals." Wellington, The Treasury,

- Scobie, Grant M. and Le Thi Van Trinh (2004) "Saving for retirement: new evidence for New Zealand." Wellington, The Treasury, Paper presented to the 5th SuperFunds Summit, April 5-6, 2004,
- State Sector Standards Board (2002) "State Sector Standards Board's report." Wellington, State Services Commission, <<http://www.ssc.govt.nz/display/document.asp?NavID=196>>
- State Services Commission, The Treasury and Department of the Prime Minister and Cabinet (2010) "Performance Improvement Framework reports." Wellington, New Zealand Government, <<http://www.ssc.govt.nz/display/document.asp?DocID=7860>>
- Statistics New Zealand (2010a) "Institutional Sector Accounts." Wellington, Statistics New Zealand, <[http://www.stats.govt.nz/browse\\_for\\_stats/economic\\_indicators/nationalaccounts/institutionalsectoraccounts\\_hotp99-08.aspx](http://www.stats.govt.nz/browse_for_stats/economic_indicators/nationalaccounts/institutionalsectoraccounts_hotp99-08.aspx)>
- Statistics New Zealand (2010b) "Measuring government sector productivity in New Zealand: A feasibility study." Wellington, Statistics New Zealand, <[http://www.stats.govt.nz/browse\\_for\\_stats/economic\\_indicators/productivity/measuring-govt-productivity.aspx](http://www.stats.govt.nz/browse_for_stats/economic_indicators/productivity/measuring-govt-productivity.aspx)>
- Stiglitz, Joseph E., Amartya Sen and Jean-Paul Fitoussi (2009) "Report by the Commission on the measurement of economic performance and social progress." France Government, <[www.stiglitz-sen-fitoussi.fr](http://www.stiglitz-sen-fitoussi.fr)>
- The Treasury (2009) "Challenges and choices: New Zealand's long-term fiscal statement." <<http://www.treasury.govt.nz/government/longterm/fiscalposition/2009>>
- The Treasury (2010a) "Half year economic and fiscal update." Wellington, The Treasury, <<http://www.treasury.govt.nz/budget/forecasts/hyefu2010>>
- The Treasury (2010b) "Saving in New Zealand – issues and options." Wellington, The Treasury, <<http://treasury.govt.nz/publications/research-policy/tp/saving>>
- Whiteford, P (2010) "Equity issues in pension design and pension reform: New Zealand in comparative perspective." in G Rashbrooke, J Davey and B Stephens eds *Retirement Income Policy and Intergenerational Equity* (Wellington: Victoria University).
- Whitehead, John (2009) "Public sector performance speech by John Whitehead, Secretary to the Treasury, Monday 20 July 2009 to Victoria University School of Government seminar at Renouf Foyer, Michael Fowler Centre." Wellington, The Treasury, <<http://www.treasury.govt.nz/releases/2009-07-20/>>
- Whitehead, John (2010) "Public sector performance speech by John Whitehead, Secretary to the Treasury, 19 August 2010 at the Public Sector Chief Financial Officers' Forum." Wellington, The Treasury, <<http://www.treasury.govt.nz/publications/media-speeches/speeches/publicsectorperformance2>>

