

Facing Fiscal Futures

John Whitehead
Secretary to the Treasury

Paper presented at the New Zealand Association of Economists'
Annual Conference, June 28th, 2006. Wellington, New Zealand



THE TREASURY
Kaitohutohu Kaupapa Rawa

CONTENTS

I. Introduction	1
II. The Statement on the Long-Term Fiscal Position	1
III. Purpose of the Statement and key challenges	3
IV. Demographic change will be permanent, not transitory.....	6
V. Fiscal projections	9
VI. Policy challenges and sensitivity analysis	13
VII. The future is not what it used to be.....	15

TABLE OF FIGURES

Figure 1: Birth and death rates for New Zealand	6
Figure 2: Population “ageing” in New Zealand.....	7
Figure 3: Population growth and age structure	8
Figure 4: Labour force and participation rates	9
Figure 5: Projected superannuation and health spending (% of GDP)	10
Figure 6: Projected education and welfare spending (% of GDP).....	11
Figure 7: Projected Core government spending and revenue (% GDP).....	12
Figure 8: Projected government budget balances (% GDP)	12
Figure 9: Projected government debt (% GDP)	13

FACING FISCAL FUTURES

I. Introduction

Good morning, it is a pleasure once again to have the opportunity to contribute to the New Zealand Association of Economists' Conference. This is the second time since becoming Secretary to the Treasury that I have spoken to this Conference and I am delighted to be able to accept these opportunities.

Two years ago I addressed this conference on the issue of New Zealand's economic growth. That talk used the 3Ps of the growth accounting framework, population, participation, and productivity, to discuss New Zealand's economic growth from an historical perspective and to identify the policy challenges facing New Zealand if we are to lift our growth performance. The emphasis in that talk was on participation and productivity.¹

My topic today is no less important and is another of the New Zealand Treasury's key priorities: New Zealand's fiscal position. My focus today though is primarily forward looking, and while the 3Ps are important to this analysis, the emphasis will be more on population because demographic dynamics and their impact on the age structure of the population are expected to have a significant bearing on future fiscal outcomes.

As many of you are no doubt aware, New Zealand is in the throes of demographic changes that are resulting in an ageing of our population. These demographic changes are expected to eventually have significant implications for government spending programmes and pose new fiscal challenges. Nevertheless, while demographic change is expected to be an important force bearing on fiscal outcomes, I should stress that there are also likely to be other important influences on future fiscal outcomes. These influences and the impact of demographic dynamics are the focus of the first Statement on the Long-Term Fiscal Position issued yesterday by the Treasury. The Statement is available from the Treasury's website.² The purpose of my talk and of this session this morning is to share with you the key issues emerging from that Statement.

II. The Statement on the Long-Term Fiscal Position

The importance of a government's fiscal position for individual behaviour, macroeconomic stability and growth is well understood by members of this audience, and was formally recognised in New Zealand with the passing of the Fiscal Responsibility Act in 1994. That Act required that for the purposes of transparency and accountability, a suite of documents be published by the New Zealand Government and The Treasury. Those documents include the Budget Policy Statement (to be published before the end of March

¹ "New Zealand's Economic Growth: A Near and a Far View", paper presented to the Annual Conference of the New Zealand association of Economists, June, 2004. <http://www.treasury.govt.nz/speeches/nzae/>

² The Treasury (2006), *Statement on the Long-Term Fiscal Position*, June, Wellington. <http://www.treasury.govt.nz/longtermfiscalposition/>

of each year stating the broad strategic directions for the forthcoming Budget) and the Fiscal Strategy Report (to be published with each Budget stating the Government's long-term objectives for fiscal policy).

The importance of sound fiscal policy was given further recognition when the Public Finance Amendment Act, 2004 (which incorporated the requirements of the Fiscal Responsibility Act, 1994) required that The Treasury also publish, at least every four years, a Statement on the long-term fiscal position.

Section 26N of the Public Finance Amendment Act, 2004 requires that before the end of the 2005-06 financial year and at intervals not exceeding four years, the Treasury must prepare a statement on the long-term fiscal position, and that the Minister must present each Statement to the House of Representatives. The Statement must relate to a period of at least 40 years, be accompanied by a statement signed by the Secretary confirming that the Treasury has used its best professional judgements about the risks and outlook, and it should include all significant assumptions underlying any projections in the Statement.

I should acknowledge that this first Statement on the Long-Term Fiscal Position is essentially just another step forward in a series of studies by The Treasury and other agencies that have raised awareness of the potential fiscal implications of publicly funded retirement incomes and in particular the potential effects of population ageing.³

What differentiates this Statement from Treasury's usual fiscal forecasts contained in the annual Budget Economic and Fiscal Updates (BEFU) and the half-yearly updates? The essential difference is the timeframe of analysis and therefore the relative importance of demographic dynamics. The BEFU provides forecasts for up to five years. Over that period of time the fiscal forecasts are significantly affected by the business cycle profile but less so by demographic dynamics. In contrast, fiscal projections 40 years out will be less sensitive to business cycle fluctuations and more affected by trend GDP growth, and in turn GDP growth, government revenue and many government spending programmes will inevitably be influenced by demographic dynamics, because over a 40 year time-span there is scope for the age structure of the population to change markedly. Indeed, it is because population projections suggest marked shifts in the age-structure of populations in many countries that the attention of fiscal policy agencies around the world has turned more toward the longer term. These longer-term fiscal issues have been highlighted in a number of New Zealand Treasury papers over the last 15 years, including for example the 1993 Briefing to the Incoming Government.⁴ International interest in long-term fiscal issues and the role of demographics⁵ is illustrated by Peter Heller's recent review of expected future global fiscal challenges.

³ Appendix 2 of the Statement on the Long Term Fiscal Position lists these studies. There are several other related research papers available on the Treasury internet site which are referred to in Paul Rodway and Peter Wilson (2006), "Modelling New Zealand's long-term fiscal position", Treasury Policy Perspectives Paper 06/01, February. <http://www.treasury.govt.nz/workingpapers/2006/pp06-01.asp>

⁴ The Treasury (1993), *Briefing to the Incoming Government*, Chapter 5, pp 89-104. <http://www.treasury.govt.nz/briefings/1993/default.asp>

⁵ Peter Heller (2003), *Who will pay? Coping with Aging Societies, Climate Change, and Other Long-term Fiscal Challenges*, Washington, International Monetary Fund.

Trying to look forward 40 or more years and predict what governments and people in New Zealand might be doing is not something to be undertaken by the easily discouraged. If the governments in the 1950s accepted the views of the US magazine *Popular Science*, they might have thought about spending money on heliports rather than roads. Helicopters and other flying devices, which were yet to be invented, were seen as the transportation mode for the next century. The “next century” is upon us now and yet in that vision it was considered that US commuters, who would be living in one of three super cities, would be transported from the suburbs to the city in 15 minutes. Alternatively they could fly to work on their personal flying platform, essentially a waist high metal basket propelled by an industrial-sized ducted fan.

John Maynard Keynes, in his Essay *The Economic Possibilities for our Grandchildren*, written some 75 years ago in 1930, foresaw a future in which the key economic question facing a person would be: “How to use his freedom from pressing economic cares, how to occupy the leisure which science and compound interest will have won for him, to live wisely and agreeably and well.” Keynes even went as far as to suggest that a 15-hour week would be the norm for working people! Well, people don’t helicopter to work much and while “science and compound interest” have delivered great improvements in living standards, those improvements have been taken in consumption, not leisure.

With these salutary lessons in mind, I will broadly outline the methodology used in deriving the projections underpinning the first Statement on the long-term fiscal position and comment on the key messages to emerge from the Statement. I do so taking some comfort in the fact that we are not alone in trying to understand the long-term evolution our public finances. There are now several examples of countries producing long-term fiscal projections and some credit rating agencies are now evaluating the potential implications for national and public debt levels of population ageing.⁶

III. Purpose of the Statement and key challenges

We see the purpose of this first Statement of New Zealand’s long-term fiscal position and subsequent statements as being to increase the quality and depth of public information and understanding about the long-term consequences of government spending and revenue decisions. The purpose is also to support finance ministers in pursuing a prudent fiscal course through time and to assist with improving public sector performance. These objectives are achieved by providing information about the fiscal consequences of a range of scenarios relating to policy setting and the influences of demographics and other forces on fiscal outcomes.

Realising these objectives poses some serious challenges. It requires an understanding of the factors that will influence the future paths of the expenditure and revenue

⁶ The Australian Commonwealth Government produced an “Intergenerational Report” in 2002. HM Treasury in the UK produces an annual “Long-term public finance report” which contains 50 year fiscal projections. The United States Congressional Budget Office prepares a *Long-Term Budget Outlook*. They model the effect of different scenarios of spending and revenue on the federal government’s fiscal balance and thus levels of national debt. The European Commission and the OECD periodically produce projections of their member countries’ future fiscal positions. The European Commission published a set of such projections of age-related expenditure for its 25 member states in February 2006. Standard and Poor’s now assess the potential effects of population ageing on future debt levels - see “Global Graying: Aging Societies and Sovereign Ratings” <https://www.ratingsdirect.com>

components of the government's budget constraint. But these factors in turn depend on the choice of policy parameters. For example, the future path of superannuation payments will depend not only on demographic dynamics but also on policy parameters such as the age-qualification for superannuation, whether these payments are indexed to wage or price growth, etc. Similarly, on the revenue side the growth of taxation will depend in large part on the taxation structure and future income growth. But with a progressive taxation structure income growth will generate fiscal drag and therefore changes in average taxation rates. This example serves to illustrate the complexity involved in deciding on the appropriate policy parameters. If we are modelling on the basis of "current policy" (which is common practice) should that be taken to mean that we simply simulate the implications of higher growth on the given taxation brackets or should we adjust taxation brackets to offset the effects of fiscal drag and maintain average taxation rates?

Our approach has been to use Treasury's Long-term Fiscal Model (LTFM) to generate the fiscal consequences of a various scenarios. The LTFM generates GDP projections based on demographic projections and assumptions about the labour market and productivity growth. The model then produces projections of detailed government spending and revenue flows, and the operating balance, and then cumulates them into projections of stocks such as the balance sheet items including debt, net worth, physical and financial assets. It does this for the Core Government and for the larger total Crown accounts, although for the purposes of this exercise we concentrate on Core Government activities. There are no explicit feedback loops from the government budget balance and debt back to the macro economy. This is to date a common approach to long-term fiscal sustainability work.

We recognise that there are likely to be feedback effects from fiscal policy parameters and government debt levels to labour force participation, productivity and economic growth. Similarly, we could expect that, as the population structure changes, there will be behavioural responses in the form of changes in rates of participation, savings and investment. In a recent review and discussion of potential links between demographic changes and economic performance the IMF acknowledge, however, that there are considerable uncertainties, and the research community's understanding of how demographic change will affect economic performance is far from complete.⁷ Moreover, international research on these links is in its infancy and to date there are few examples of general equilibrium models used internationally for the purposes of long-term fiscal modelling.

There is potential to move more in this direction of modelling in the future, and I hope that my staff will continue to engage with the economics profession on these issues. Until these relationships are well understood and the modelling of these relationships is robust, we think that the approach we have taken provides transparent results that provide a sound basis for policy debate.

⁷ International Monetary Fund (2004), *The Global Demographic Transition*, World Economic Outlook, September, Washington. See Chapter III, "How will demographic change affect the global economy?" Pp 137-180.

We have nevertheless augmented the LTFM by taking up some of the modelling techniques used by the Australian Productivity Commission, the OECD and the European Union's Economic Policy Committee for projecting participation rates and health costs. In general, the version of the Long-term Fiscal Model used here is the same as for the Fiscal Strategy Report (covering the period 2006 to 2020) with the same structure, and the same base demographic and GDP projections. However, changes have been made to:

- (a) Improve the way demographic changes are expected to impact on health spending.
- (b) Reflect the effect of expected ongoing changes in the real price of health.
- (c) Augment the cohort effects on labour market participation projections. Labour force participation rates are divided into five-year age cohorts from 15 to 19 years through to 60 to 64 years and 65+ years. Whereas the LTFM previously allowed participation rates to adjust over the first four years of projections, we have now augmented the model to allow some of the revealed patterns of labour force participation to carry on for sometime.

Our long-term fiscal modelling therefore essentially involves an accounting process of adding up the fiscal implications of current policy parameters interacting with demographic dynamics, income growth, etc. This adding up could result in time profiles for government operating balances and debt levels that are considered incompatible with overarching objectives of fiscal sustainability. This so-called "Bottom up" approach therefore serves to highlight potential fiscal challenges and the extent to which policy changes will be required if the summation of revenue and spending programmes is incompatible with overarching fiscal sustainability objectives.

The provisions of the Public Finance Act mean that governments are required to include sustainability objectives which set fiscal limits to ensure public finances are sound. This "Top-down" perspective means that in the process of building their budgets governments are continually trading-off the many policy options open to them. They balance the policy objectives they seek to achieve in areas as diverse as health, police, foreign aid and support for the arts with the government's overarching economic and fiscal objectives, including the fiscal responsibility provisions of the Public Finance Act. While in principle this loop could be closed in our modelling by incorporating a fiscal response function that adjusted the components in a manner consistent with the overarching fiscal objectives, government preferences are likely to be changing over time.

The Statement therefore looks at possible fiscal outcomes from two angles. In the "Bottom-up" approach the level of gross sovereign-issued debt (GSID) is the residual. The implications for the level of gross sovereign issued debt of assumptions about demographic change (such as fertility and mortality rates), productivity growth, participation rates, juxtaposed with assumptions about policy parameters pertaining to individual spending and revenue programmes (such as superannuation, health, etc) are then traced out. In the "Top down" approach we assume a particular objective for the level of gross sovereign issued debt and evaluate policy trade-offs for individual spending and revenue programmes when they are juxtaposed with a debt constraint.

I will turn now to a discussion of some of the key insights from our long term fiscal modelling. Our modelling starts with projections of the population and combines these with assumptions of future productivity growth and labour force participation to produce projections of GDP, government spending, taxation revenue, operating balances and debt. One of the main influences on the future demands for public expenditure and

therefore challenges for fiscal policy will arise from the expected changes in our population structure, so it is perhaps appropriate that I start with demographics.

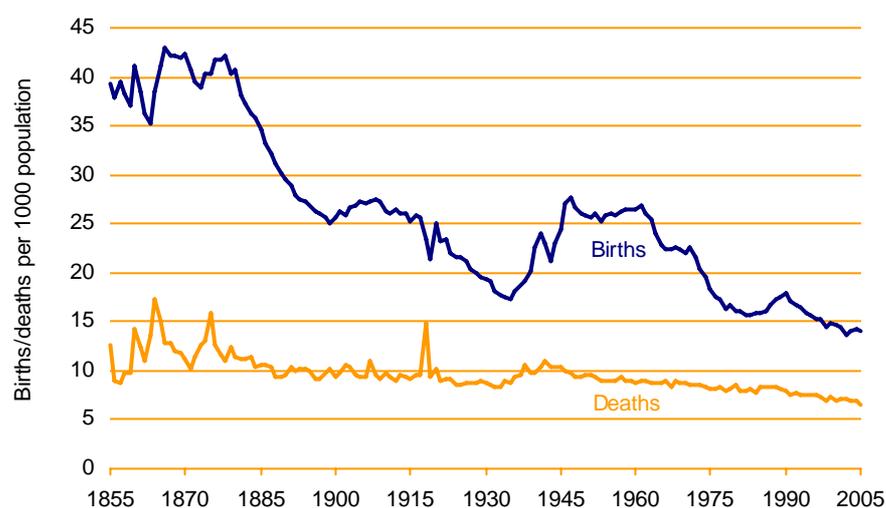
IV. Demographic change will be permanent, not transitory

During the last 150 years the world has been going through a period of marked demographic change. Improvements in health and the related rise in life expectancy has brought about a transition from high mortality and high fertility rates to low fertility and low mortality rates. Ronald Lee⁸ has portrayed this transition as starting with mortality decline, followed after a time by reduced fertility, leading to an interval of first increased and then decreased population growth and, finally, population ageing.

Although countries are in quite different stages of the transition process with the more developed countries at a more advanced stage than less developed countries, Lee points out that there has been rapid global convergence of fertility and mortality among nations. This transition is bringing about and will continue to generate for several decades to come, a significant change in the age distribution of populations across nations and globally. It will bring about, for the first time in history, populations with large and growing proportions of the population in what have traditionally been regarded as the “old age” bracket.

Compared with many developed countries, however, and compared with Japan and Korea in particular, New Zealand still has a relatively young population. New Zealand is nevertheless well down this demographic transition path. New Zealand used to have high rates of fertility and mortality, but as Figure 1 illustrates, both have fallen markedly over the past century.

Figure 1: Birth and death rates for New Zealand



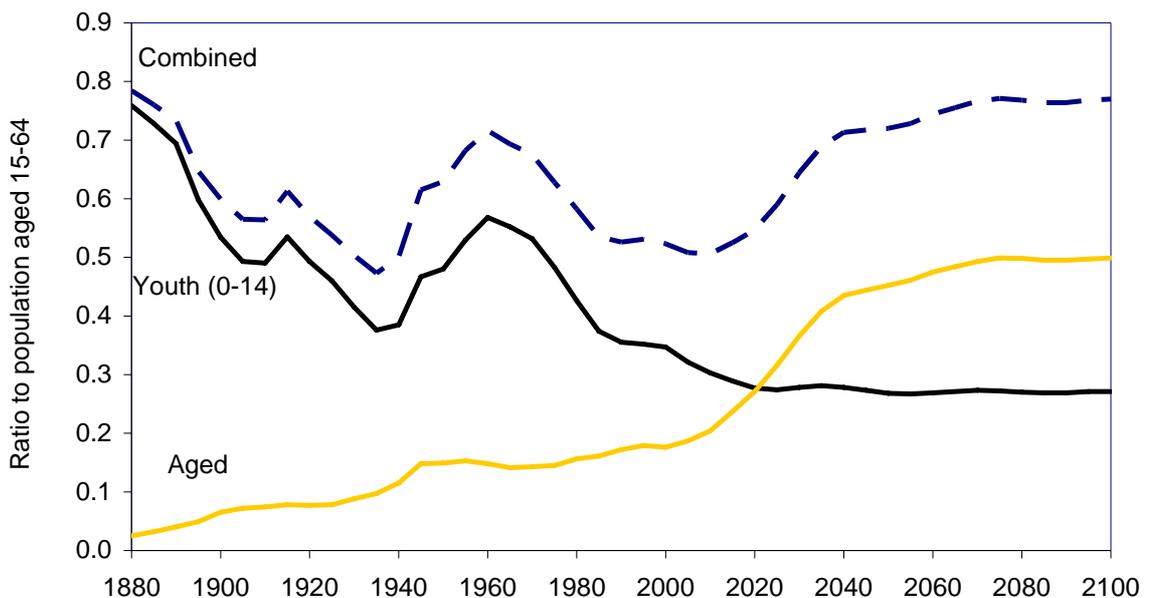
The combined result is a change in the make-up of our population, particularly in the relative proportions of “young” and “old” people. Figure 2 shows changes in the ratios for these groups from 1880 to the year 2100. This transition is not a demographic bulge that

⁸ Ronald Lee (2003), “The demographic transition: Three centuries of fundamental change”, *The Journal of Economic Perspectives*, 17 (4): 167-190.

will reverse at some time in the future. It will bring about a permanent change in the age structure of the population. The effect of the baby boom, which by the way began in the late 1930s, is clearly evident. It is equally clear that although there is an echo effect toward the end of the last millennium, the baby boom effect is transitory: there is no downturn in the proportion of “old” people when the baby boomers have died. This projected change in the age structure of the New Zealand population mirrors projections for other developed economies and what is expected to eventually happen globally.

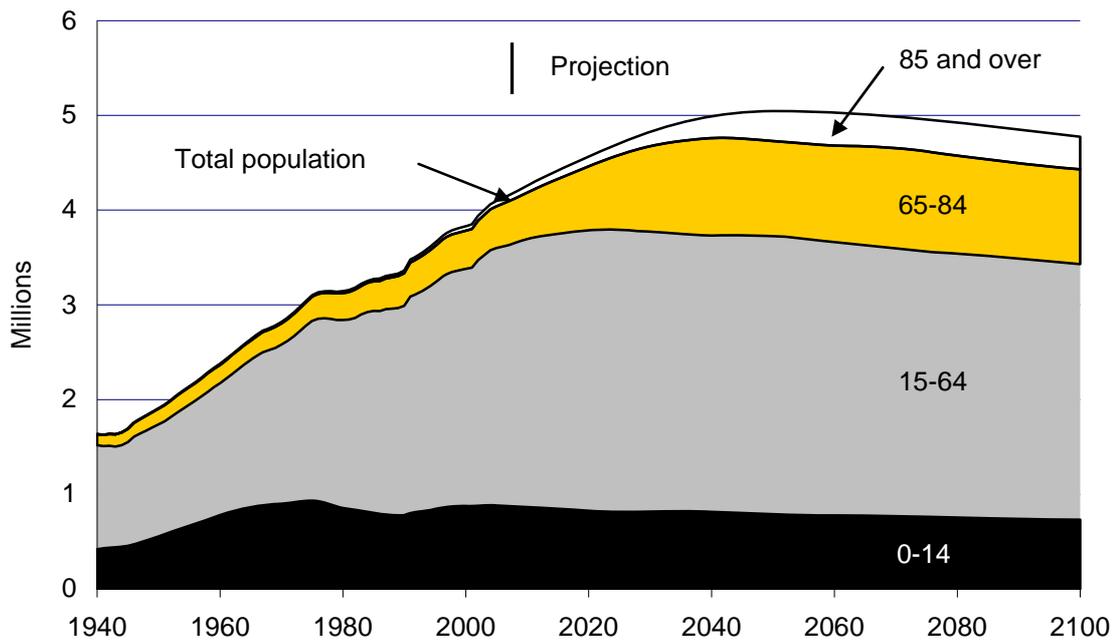
While by 2100 the combined ratio of “young” and “old” in New Zealand is back to the levels seen in the past, the composition is different: people over 65 make up the largest share. What is also evident is that the rise in the proportion of the “old” is projected to speed up during the next twenty years. This change is likely to be significant for the government’s fiscal position because significant components of public expenditure are focussed on the requirements of the “young” and the “old”. Moreover, because more of the cost of support for the elderly compared to the young tends to come from the state than from the family, these demographic changes will tend to increase the aggregate costs of the current configuration of government spending programmes.

Figure 2: Population “ageing” in New Zealand



The impact of these dynamics on projections for New Zealand’s total population, its population growth rate and age structure is illustrated by Figure 3. The population growth rate is expected to decline and its age structure is expected to change. The number of people over the age of 65 years is expected to grow almost three-fold, while those aged 85 years and over is expected to grow six-fold by 2050. Under this scenario the number of people aged 15 to 64 years grows until the mid-2020s and then contracts. As a proportion of the total population it is expected to peak around 2010 at approximately 66 percent of the population and declines to around 58 percent by 2050.

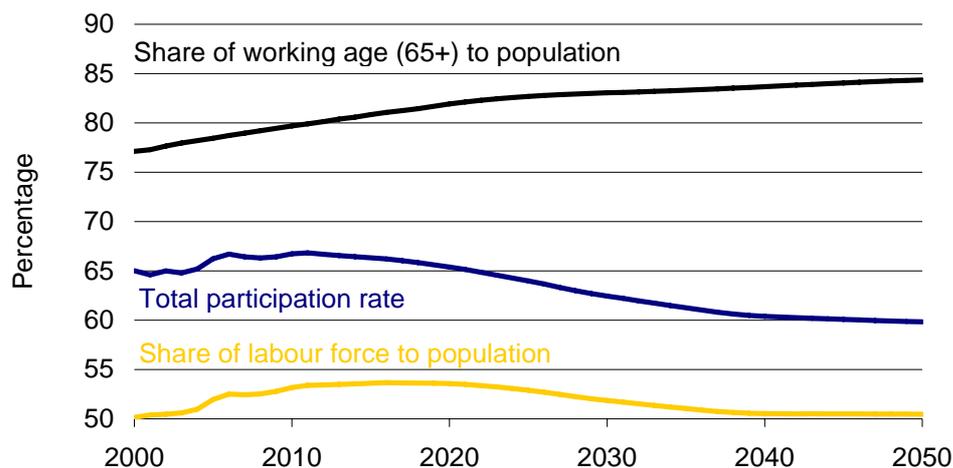
Figure 3: Population growth and age structure



These projections are based on Statistics New Zealand's median projections of the future population in which life expectancy will continue to grow, but will eventually stabilise. Despite the long-lead time involved with population dynamics, there are uncertainties involved with these projections. Nevertheless, the broad trends appear to be well established and consistent with the implications of the transition dynamics that have been described by Ronald Lee, the IMF and other researchers. The consequences of these dynamics are: a fall in the population growth rate, an ageing of the population (in the form of a rise in the median age), and a declining share of the working age population. These patterns are evident in the New Zealand projections.

The implications for the labour force, and therefore GDP, are more subtle than what is implied by Figure 3. While our labour force projections are based on the above described population dynamics, we also apply dynamic cohort participation modelling. This procedure is applied to the population aged 15 years and over, and recognises that labour force participation rates vary across cohorts and have tended to rise over successive generations. While the share of the traditional workforce age bracket tends to eventually decline (as shown in Figure 3), the share of the population aged 15 years and over continues to grow mid-century then begins to decline. Furthermore, participation rates tend to rise for each age bracket as younger cohorts pass through these age brackets. Therefore, the labour force tends to rise for some years but eventually the age structure starts to dominate the dynamic cohort participation effect and the aggregate participation rate eventually declines and the size of the labour force as a proportion of the population also declines. The estimated labour force is currently around 52.5 percent of the population, is expected to peak at around 53.5 percent by around 2015 then decline to about 50.5 percent by 2050. These patterns are shown in Figure 4.

Figure 4: Labour force and participation rates



While acknowledging the uncertainties, the overall pattern is one in which the demographic dynamics are expected to impact on future fiscal positions from both sides of future government budgets. The “ageing” process has the potential to influence the expenditure side of budgets through changes in pension, health and education costs. By changing labour force growth and its share of the total population, these demographic dynamics could influence GDP growth and therefore also the revenue side of government budgets.

V. Fiscal projections

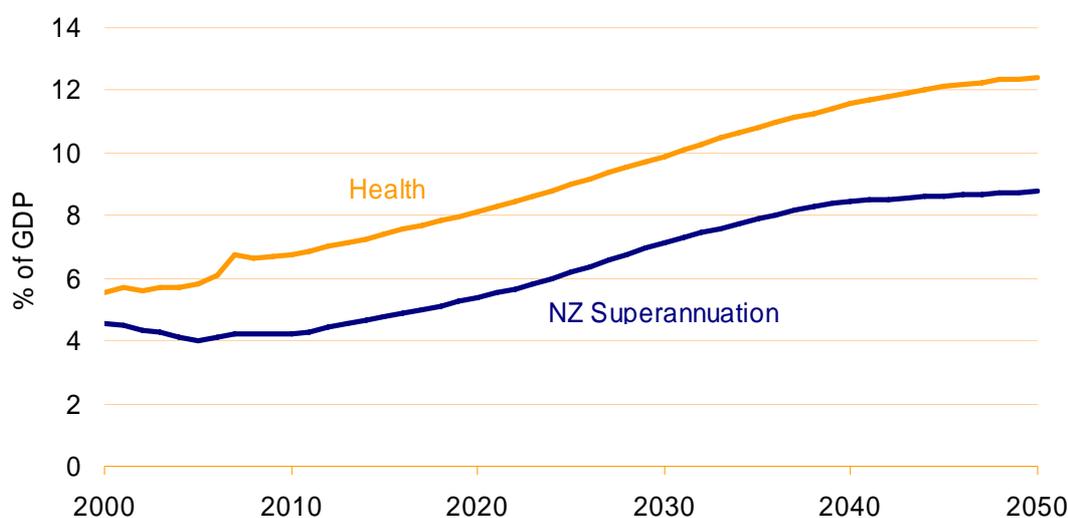
I will turn now to a closer look at the potential implications of these developments for some of the key components of public finances and comment on what we see as the main influences on the evolution of government expenditures and revenue, under current policy settings. I will comment on the expenditure components of superannuation, health, education and welfare, projections for taxation revenue, the budget operating balance and public debt.

New Zealand Superannuation payments currently total around four percent of GDP. Under the present age qualification and assuming prevailing pension rates grow at the same rate as average after tax nominal weekly earnings, total Superannuation payments are expected to grow to around nine percent of GDP by 2050. The projected path for Superannuation payments is shown in Figure 5. It is hardly surprising that the shape of the curve in Figure 5 is similar to that for the “Aged” in Figure 2. The annual payments for New Zealand Superannuation are roughly determined by the average nominal wage and the number of people aged 65 years and over. Since the former is determined by labour productivity and since, labour productivity and the labour force determine GDP, the ratio of NZ Superannuation to GDP will tend to mirror the shape of the “Aged” curve.

In 2001 the Government established the New Zealand Superannuation Fund to help fund the future costs of New Zealand Superannuation obligations. The Fund shifts contributions through time but does not change the amount of benefits expected to be paid and therefore does not have any effect on the profile of superannuation spending in Figure 5. The process of siphoning off revenue to the Fund will however impact on our estimates of gross sovereign issued debt, interest payments on debt and the government

operating balance (but not the level of net debt where net debt includes assets held by the NZ Superannuation Fund).

Figure 5: Projected superannuation and health spending (% of GDP)



Government expenditure on health services as a proportion of GDP has doubled from about 3 percent in the 1950s to about 6 percent today. Our long-term fiscal projections suggest that, along with superannuation, health spending will continue its inexorable rise and may double again by 2050. This pattern is also illustrated in Figure 5.

In contrast to the case of New Zealand Superannuation, however, there is no single parametric-driven scheme for government health spending. For the purposes of these long-term projections we have isolated three main influences on health spending: demographic, the real price of health, and policy decisions. Considerable uncertainty applies to each of these components. To illustrate, there is as yet an unresolved debate in the international literature as to the implications of the increasing life expectancy for the health status of the aged. The implications for health care costs, and no doubt labour force participation, will crucially depend on whether increased life expectancy means a compression of morbidity (people live longer and have fewer years of poor health), healthy ageing (where the absolute period of poor health remains the same), or expansion of morbidity (the absolute period of poor health increases).

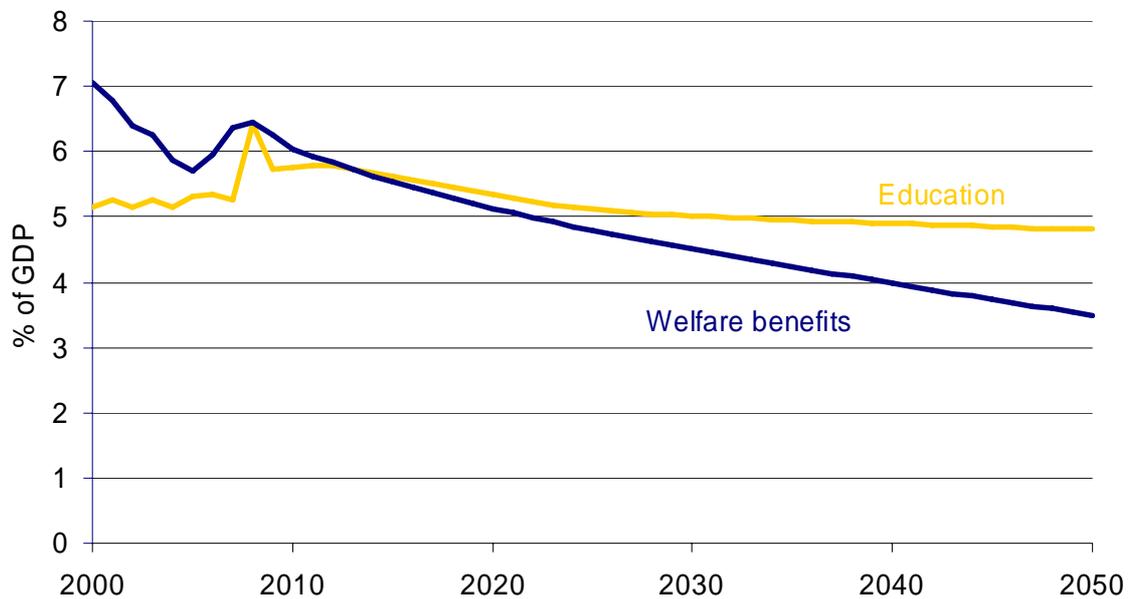
Our projections for education and welfare costs on the other hand are rather different. Spending in these two programmes is around 5 to 6 percent of GDP for each programme and projections suggest they may decline. These projections are shown in Figure 6.

Demographic dynamics play a key role in influencing the profile of projected education expenditure shown in Figure 6. The profile for education spending is affected by the profile for “Youth” shown in Figure 2. If we assume that current education participation rates prevail and we allow for some increase in costs per pupil, education spending as a proportion of GDP is projected to fall slightly.

If the level of welfare benefits are assumed to the continue on the basis of current policy of indexation to the general price level, then total welfare benefit payments fall as a

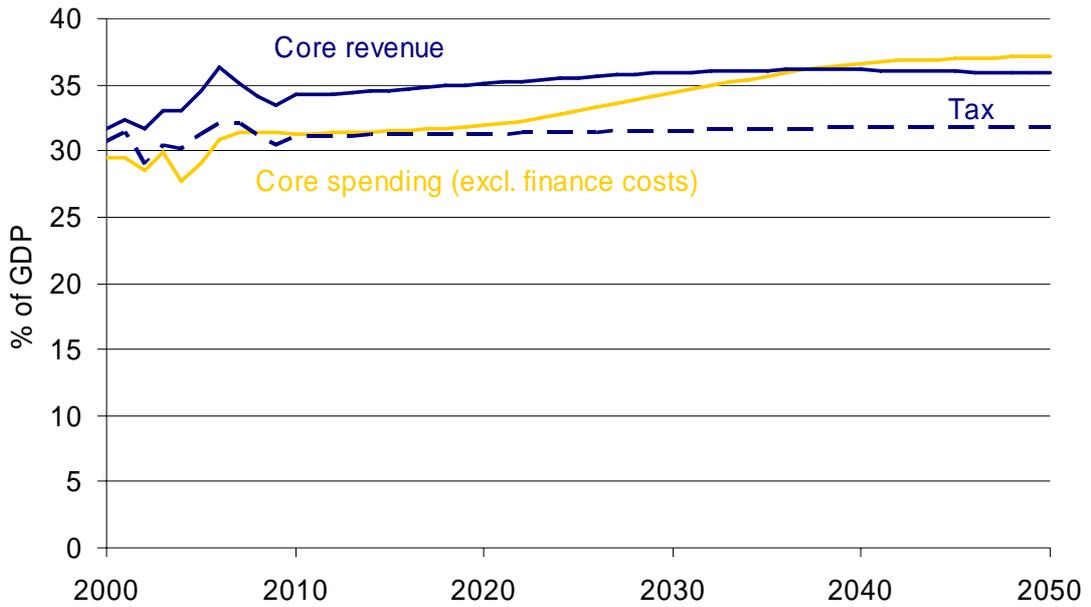
proportion of GDP. This is also shown in Figure 6. The main reason is that due to productivity growth, nominal GDP grows faster than prices over the projection period.

Figure 6: Projected education and welfare spending (% of GDP)



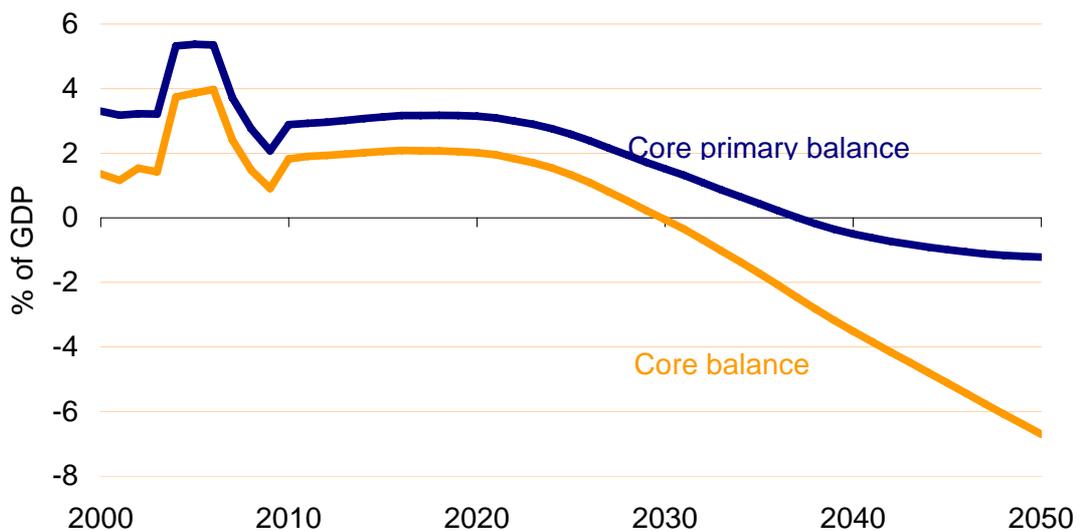
Adding up the various spending components, but excluding debt financing costs, gives a projected path for Core government spending which rises from the current level of around 30 percent of GDP to around 37 percent of GDP by 2050. To complete the picture of the overall fiscal position it is also necessary to project the future track of taxes and include other revenue earned from SOEs, the NZ Superannuation Fund and other assets. Following international and past New Zealand approaches we have assumed, in effect, that the current tax-to-GDP ratio is maintained throughout the projection period. In practice, we are assuming that the current tax base grows at the same rate as GDP and that most tax rates stay the same. In the case of personal taxes, we are assuming that the tax rates stay the same, but that the thresholds in the personal tax system are indexed to nominal wages. Figure 7 shows Core government spending and revenue projections.

Figure 7: Projected Core government spending and revenue (% GDP)



The net result of interacting current policy settings with projected population dynamics, projected productivity growth and projected changes in the real price of health services, gives a profile for the government operating balance. Figure 8 illustrates that the government primary balance is projected to remain in surplus for some years (until about 2040). Thereafter the primary surplus evaporates and by 2050 is in deficit to the tune of over 1 percent of GDP. These future primary deficits generate a rise in the level of gross debt which in turn raises debt financing costs to the point where the operating balance also goes into deficit by around 2030 and, as a result of rising debt financing costs, increases to over 6 percent as a proportion of GDP by 2050.

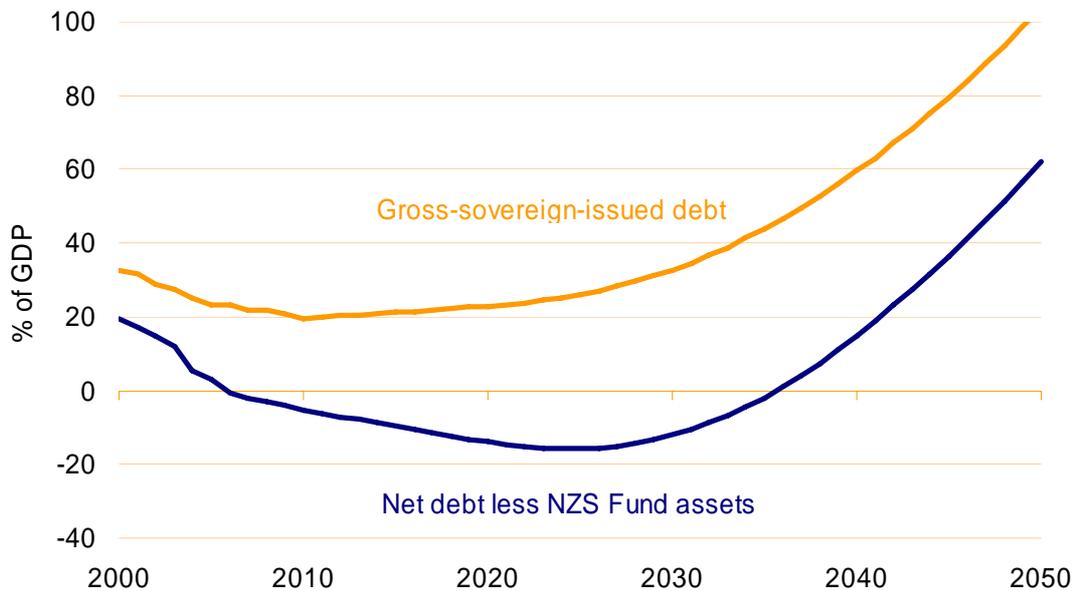
Figure 8: Projected government budget balances (% GDP)



The implications for debt are illustrated in Figure 9. Debt is projected to rise as a result of the emergence of the budget deficits. This rise in debt in turn generates the familiar “debt

dynamic” whereby rising debt adds to government interest payments and in turn the size of the governments operating balance and levels of debt. While the growth in assets held by the NZ Superannuation Fund affects the level of net debt, the rise in gross sovereign issued debt eventually impacts on the level of net debt which would be eroded if these dynamics are left to play themselves out.

Figure 9: Projected government debt (% GDP)



Several important and related points can be made about these fiscal projections. The first is that under current policy parameters, demographic dynamics are expected to raise significantly some components of government expenditures (such as superannuation), lower some components (such as education), and not be especially important for others (such as welfare benefits and health).

The second point is that, even with a constant tax to GDP ratio, fiscal balances are projected to remain in surplus for quite some time. The impact of population ageing on the net fiscal position really is a long-term matter.

A third point is that without some behavioural changes or policy changes that raise labour force participation rates (beyond those assumed in these projections), lower demands for demographically sensitive public expenditures, or reduce the rate of growth in real health costs, the fiscal position is projected to eventually deteriorate. This will bring about rising levels of public debt and a recurrence of the adverse debt dynamics experienced in the 1970s and 1980s.

VI. Policy challenges and sensitivity analysis

The fiscal projections imply a trajectory for budget balances and debt that are unlikely to be considered consistent with the principles of responsible fiscal management set out in the Public Finance Act. In order for gross sovereign-issued debt to remain around 20 percent of GDP over the projection period, the operating and primary balances will need to remain in small surplus in order to fund capital expenditures.

Governments clearly have a wide range of options from which to decide how to react to the demographic and other forces expected to impinge on the fiscal outlook. They may choose to focus on the spending side or to adjust taxation revenues. They may decide to react early with small steps or later with larger adjustments. These options will inevitably be weighed up against other government priorities. In this section I can hope only to give a brief illustration of the order of magnitude of fiscal adjustments that may be required to ensure governments satisfy the principles of sound fiscal management and to give you a flavour of the sensitivity of these projections to our modelling assumptions.

Let us consider a scenario in which, in order to sustain gross debt levels at say 20 percent of GDP, adjustment takes place on the expenditure side and that successive governments decide to allow the long-term effects of demographic dynamics and other forces on superannuation, health, education and welfare to take effect. In such a case, spending on all other categories (including financing costs) would have to fall as a proportion of GDP over the medium to long-term from the current level of 10 percent to about 5.5 percent by 2050. If instead we consider a scenario in which all the adjustment was to occur on that taxation side, the taxation-to-GDP ratio would have to rise from its current level of 32 percent to about 35 percent by 2050.

There are of course many other fiscal adjustments that could be considered by future governments. Furthermore, governments can choose to adjust early and gradually or late and with larger adjustments. The spending and taxation adjustment scenarios discussed assume early and gradual adjustment. One of the implications of debt dynamics is that late adjustment to spending or taxation will require larger and more abrupt changes to spending or taxation rates. In other words, delaying the fiscal adjustment increases the size of adjustment required to sustain a given public debt target.

The Statement includes extensive analysis of the sensitivity of the fiscal projections to assumptions applied to demographic dynamics, to productivity growth and labour participation rates, to health costs, and to policy parameters including age qualifications for superannuation and indexation rates applied to superannuation and welfare. This is not the place to provide a full discussion of the sensitivity of these fiscal projections to the modelling assumptions, but a few warrant comments.

If fertility rates were to continue to fall below replacement rates to levels prevailing, for example, in Italy, Japan and Korea, then a more marked ageing of the population would occur. This would impact on the profile of the labour force and eventually result in lower GDP growth, higher budget deficits and high public debt levels. Lower mortality rates than we have assumed would eventually impact on lower government spending, particularly superannuation and to a lesser extent health, and smaller budget deficits and lower debt levels.

There is a cautionary tale about the implications of indexation of welfare benefits and public pension schemes, in particular. Our projections assume that following current policy, welfare benefits will continue to be indexed to the CPI. This is a strong assumption because it implies that benefits would fall markedly as a proportion of average wage rates over time. While this reflects the experience of the last 30 years, the political implications may prove to be unsustainable. Full wage indexation of welfare benefits would increase expenditure in this area by around 2.3 percent of GDP by 2050 compared to the CPI-indexation case.

The potential cost of New Zealand Superannuation is an emerging policy challenge. The projections presented earlier assume that superannuation benefits are indexed to after-tax wage growth. If instead superannuation benefits were indexed to the CPI, total superannuation payments as a proportion of GDP fall by around 4 percent of GDP by 2050. That is, the NZ Superannuation curve in Figure 5 remains relatively flat. However, the implications of indexing superannuation to the CPI may also prove to be politically unsustainable.

Options around lifting the age qualification for superannuation are being explored and implemented in some European countries. Some options are explored in the Statement. These options will help permanently reduce the potential cost of superannuation and, as one could expect, the more gradual the adjustment (that is as the adjustment to a higher age of qualification is spread over more years) the smaller are the debt savings and therefore the smaller is the impact on total superannuation costs.

VII. The future is not what it used to be

The New Zealand government's current fiscal position is sound by historical and present international standards. The level of public debt is low, assets are being built up to provide a buffer against future fiscal demands and tax and spending rates have been relatively stable and at levels around norms for developed countries.

Our fiscal projections, which are based on history, current policy and judgment, suggest that New Zealand's sound fiscal position is likely to continue for several years. Nevertheless, the combination of a structural change to our population and present policy settings is likely to lead to growing challenges to government fiscal positions and these pressures will accelerate in the next few decades. This implies that if future governments prefer to continue to follow the principles of responsible fiscal management contained in the Public Finance Act, then unless the demographic transition generates offsetting behavioural changes, policy changes will be necessary.

New Zealand governments have a window of opportunity of some 20 years to introduce policy changes. This time could be used to introduce early and gradual change if we are to avoid the risk of large policy adjustments in the future. Policy makers will, however, have to balance economic, political and social considerations. A broad range of policy measures may therefore be needed to lessen the effects of population ageing and rising incomes on public finances.

At the start of this talk I indicated that, while I would allude to all the 3Ps of economic growth, the emphasis would be on population and the implications of population dynamics for fiscal futures. Nevertheless, policies that boost labour participation and productivity are likely to be crucial in meeting the challenges posed by population dynamics. For instance, reforms that improve the sustainability of public pension schemes and encourage labour force participation will directly impact on government expenditures and broaden the revenue base. One of the messages from our projections is that stronger productivity growth will not necessarily alleviate these fiscal pressures if government spending programmes are indexed to wage growth, as is the case with superannuation for example. Nevertheless, economic growth may well provide a more favourable environment in which to implement the policy reforms that we expect will be required to maintain sound and sustainable fiscal policy.

The French poet Paul Valery once famously commented: “The trouble with our times is that the future is not what it used to be.” Demographic dynamics is a powerful force that is likely to bring about a future markedly different to our parents, and our grand-parents, generations. Those changes, along with others that will come about as a result of, for example, technological change, will change pose new fiscal challenges. Publishing a Statement on the long-term fiscal position is not an end in itself. Its purpose is to help illuminate some of the key future fiscal challenges and prompt policy developments that help ensure sound fiscal policy is sustained.

The economic and fiscal effects of population ageing, the policy challenges posed by rising costs of superannuation and health care, the links between the health system, health status and mortality rates are just a few of the issues that policy makers are going to have to come to grips with over coming decades. In illuminating these issues I hope that the Statement prompts members of the New Zealand Association of Economists to take up some of the many research and modelling challenges it poses and continue to build on the important contributions that have already emerged from international economics fraternity.

Thank you.