



**OECD Economic Surveys**  
**NEW ZEALAND**



# **OECD Economic Surveys**

# **New Zealand**

**2007**



ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

## **ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT**

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*The Secretariat's draft report was prepared for the Committee by Deborah Roseveare, Annabelle Mourougane and Shuji Kobayakawa under the supervision of Peter Jarrett.*

*The previous Survey of New Zealand was issued in September 2005.*

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## BASIC STATISTICS OF NEW ZEALAND

### THE LAND

Area (1 000 sq. km)	268.0	Urban population,* percentage of total (30 June 2006)	78.2
Percentage of total pasture and arable land, 2003	51.3	Population of major urban areas (30 June 2006, 1 000 persons):	
		Auckland	1 260.9
		Wellington	373.4
		Christchurch	372.5

### THE PEOPLE

Resident population, 31 December 2006 (1 000)	4 165.6	Civilian employment, 2006 (1 000)	2 117.2
Inhabitant per sq. km	15.5	of which:	
		Agriculture, forestry and fishing	150.9
		Manufacturing	274.3
		Trade (wholesale and retail)	465.0
		Education, health and community services	356.4

### PARLIAMENT AND GOVERNMENT

#### Present composition of Parliament :

Labour Party	49
National Party	48
New Zealand First	7
Green Party	6
Maori Party	4
United Future	3
ACT New Zealand	2
Progressive Coalition	1
Independent	1

Present Government : coalition  
Next general election: November 2008

### PRODUCTION (2006)

Gross Domestic Product (NZD millions)	160 152	GDP per capita (NZD)	38 684
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### FOREIGN TRADE (2006)

Main exports (percentage of total):		Main imports (percentage of total):	
Dairy produce	19.1	Machinery and transport equipment	38.4
Meat and edible offal	13.5	Manufactures	17.6
Forest, wood and paper products	11.5	Mineral, chemicals, plastic materials	29.2
Machinery and equipment	7.4	of which:	
		Mineral fuels, lubricants, etc.	14.7

### THE CURRENCY

Monetary unit: New Zealand dollar		Currency unit per US dollar, average of daily figures:	
		Year 2006	1.5416
		March 2007	1.4306

\* Defined as the population in the 30 main and secondary urban areas.



## Executive summary

**N**ew Zealand has undertaken wide-ranging reforms over the past 20 years and now has one of the most flexible and resilient economies in the OECD. However, a large external deficit, very low household saving and still-strong inflation pressures indicate an unbalanced growth pattern. There are some signs that these imbalances are starting to unwind, but the short-term outlook remains uncertain. On current settings, it will take time for inflation pressures to dissipate and, notwithstanding a large fiscal surplus, strong growth in government spending is complicating the stabilisation task of the Reserve Bank. Moreover, additional fiscal stimulus beyond present plans – whether from spending increases or tax reductions – would delay internal and external rebalancing and exacerbate the adjustment required to ensure fiscal sustainability in the longer term.

Despite strong economic growth since the early 1990s and policy settings in product and labour markets that for the most part enhance efficiency, total economy labour productivity growth has been lacklustre although productivity growth in the “measured sector” has been somewhat stronger. A number of factors have affected productivity, but the persistent gap in living standards with the rest of the OECD is still not well understood. This Survey explores whether the large medium-term swings in the NZ dollar and higher long-term interest rates than in other OECD countries might play a role. Looking ahead, the key challenges will be to maximise improvements in living standards and to absorb pressures for increasing health and superannuation spending as the population ages. In this light, this Survey focuses on the following issues.

**Improving pension and retirement savings policies.** Overall, the foundations of public pensions are sound, but the pre-funding approach will only partially meet the pressures from rising pension outlays. Without undermining the basic design of New Zealand Superannuation, two measures could diminish its long-term cost: using a lower indexation formula for pension payments and/or lifting the eligibility age. Moreover, automatically adjusting the retirement age to changing life expectancy would help to manage fiscal risks. KiwiSaver is being introduced to encourage New Zealanders to accumulate assets for their retirement and is expected to raise household saving rates. The removal of its pro-housing elements would promote a more diversified mix in households’ asset portfolios.

**Deepening and enhancing the efficiency of financial markets.** More developed financial markets make for better resource allocation and risk management, but New Zealand’s markets remain relatively thin: higher savings for retirement might help to deepen them. Although there are no major regulatory barriers impeding the expansion of financial markets, refinements of the governance framework for collective investment schemes and stronger disclosure requirements would help, as would further efforts to boost financial literacy. More generally, a better understanding of why some parts of the country’s financial markets remain under-developed and why households are accumulating so few financial assets despite high rates of return would permit a fuller assessment of the role for policy.

**Adapting the tax system to future needs.** The tax system has long been regarded as one of the most efficient within the OECD. Looking forward, however, the system will face challenges,

*including risks to the tax base arising from increasingly mobile capital and labour. A clearer strategic direction for the tax system is needed to help maximise living standards in the long term. There are at least two broad options: adapting the system within a comprehensive income approach or moving to a dual income tax system, in which capital income is taxed at a lower rate than earned income. These options should be evaluated against the criteria of efficiency, equity, simplicity and transition costs within an inter-temporal economy-wide framework. In any case, weak points within the current tax bases should be re-examined, recognising the merits of a “broad-base, low-rate” approach. Any actions taken in the near-term should avoid adding to domestic demand and be consistent with the long-term direction eventually adopted. Reforms should also not put long-term fiscal sustainability at risk: a higher GST rate could help achieve this objective.*



## Assessment and recommendations

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### *Macroeconomic imbalances are weighing on economic prospects*

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The New Zealand economy decelerated during 2005, after six years of strong economic growth of around 4% on average per year, and remained sluggish in 2006. But there is, as yet, little sign of spare capacity, and the labour market has so far been resilient. Nevertheless, a series of inter-related imbalances have accumulated in the economy and have started to unwind only very slowly. Strong household income growth and ongoing immigration flows have stimulated house sales and put upward pressure on real estate prices. Banks have met the resulting increases in demand for mortgage finance by borrowing offshore, a process that has been facilitated by ample global liquidity and low risk aversion. While the government has a high saving rate, the household saving rate is significantly negative and household debt has climbed sharply to around 160% of disposable income, a ratio that is higher than in most other OECD countries. The net result is a current account deficit that stood at 9% of GDP at the end of 2006. Despite headline inflation falling sharply with the drop in the oil price, the maintenance of fairly strong domestic demand has limited progress in curbing underlying price pressures.

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### *The path to restoring internal and external balance is uncertain*

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It is still unclear whether the economy has reached the bottom of the cycle, and the mechanisms for moving back to a more sustainable growth path and their timing are uncertain. The present restrictive stance of monetary policy will eventually rein in household spending and lead to more stable house prices, while the high exchange rate has already put a considerable squeeze on exporters' profits. Ongoing losses of export incomes would reduce domestic demand. A period of slow growth will be needed before inflation pressures dissipate and the Reserve Bank can cut interest rates, allowing the exchange rate to depreciate. Alternatively, a sharp reduction in foreign investors' confidence and a fall in demand for NZ dollar-denominated assets could lead to an abrupt depreciation in the exchange rate that would chill domestic demand and improve the external balance. But the cold shower could generate financial hardships for some households.

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*The effectiveness of short-term stabilisation policy has been questioned*

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The task of monetary policy is particularly complex given the current uncertainties, and the Reserve Bank has been justifiably concerned by the persistence of inflation near the top of its target range. Moreover, sustained upward pressure on the exchange rate resulting from tight domestic monetary policy led to consideration of additional tools to manage inflation, with attention focused on the housing market given the role of house prices in this cycle. Various supplementary measures were examined. These included discretionary instruments such as a mortgage interest levy. But the case for instruments of this type is not compelling, as they are difficult to develop and enforce, and could blur the responsibilities of the fiscal and monetary authorities. Other measures included regulatory procedures affecting housing supply, the tax treatment of residential property and capital requirements on banks' residential mortgage lending. Notwithstanding the possible support that such policy changes could contribute, conventional stabilisation instruments should remain the primary way to manage macroeconomic fluctuations. At this point, fiscal policy also has an important role to play. Tax cuts or spending increases beyond current plans could further exacerbate inflationary strains, thereby leading to higher interest and exchange rates than otherwise. Indeed, delaying the planned fiscal impulse for the next two years would reduce the strength of domestic demand and inflationary pressures and allow a lower interest-rate path than currently envisaged. This would facilitate a fall in the exchange rate and accelerate the external rebalancing process. Such restraint may be politically difficult, given the sizable budget surplus, but it could allow a smoother unwinding of the imbalances and avoid more painful adjustments in the future. In any case, any positive revenue surprises over the near term should not be used in a way that adds to domestic demand pressures. Furthermore, the stabilisation task, and policy advice more generally, could also be made easier at minimal budgetary cost by the availability of better official statistics.

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*There has been little progress towards the goal of lifting living standards to the OECD median*

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Despite strong growth performance since the early 1990s and the adoption over the past 20 years of structural policies that are, for the most part, consistent with OECD best practices, living standards have remained some 16% below the OECD median for some years. Labour utilisation has increased substantially, but total economy hourly productivity growth has been lacklustre. Several reasons can be offered that might explain this outcome. *First*, common to many countries, productivity measurement issues are important. Productivity growth has been stronger in the “measured” sector (where independent measures of both inputs and outputs exist) than in the total economy and has been comparable to that of Australia. *Second*, the large increase in labour absorption that New Zealand has achieved over the past decade – partly in response to relative prices of labour and capital – may have come at the cost of a temporary decline in productivity growth as less productive workers were absorbed into the labour force.

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### *Large exchange rate swings and systematically higher interest rates may have played a role*

---

While structural policy influences on productivity growth have been studied in depth, including in previous *Surveys*, it is still not well understood why the gap in living standards has persisted. This *Survey* examines whether two “stylised facts” about the New Zealand economy have played a role in holding back growth in per-capita GDP. First, the economy is subject to large medium-term swings in both nominal and real exchange rates. World prices for New Zealand’s export commodities play a role in explaining these movements, which provide some income-smoothing benefit for commodity producers. But on the other hand, such swings may deter investment in the export and import competing sectors and reduce incentives for small firms to grow or to remain in New Zealand. Second, New Zealanders have had to pay systematically higher bond and mortgage interest rates than those in other OECD countries, increasing the cost of capital and curbing investment at the margin. Further investigation of these features and their relationship to productivity growth is warranted. If there were structural policy measures that could attenuate these aspects of the economic landscape without creating other distortions, they might help the economy reach a higher growth path, but such options are not obvious.

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### *The main challenge is to enhance longer-run living standards*

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Looking forward, the key challenges are to raise national incomes and to meet the fiscal pressures that are likely to arise over the longer term from an ageing population. The share of GDP devoted to health and pension spending could more than double by 2050 according to Treasury projections. Faster productivity growth is one important element in generating higher incomes and will become increasingly important as the room to further raise labour utilisation is limited. This *Survey* focuses on the following important issues:

- pursuing a consistent set of public pension and other retirement savings policies;
- facilitating the deepening of financial markets; and
- developing a long-term tax strategy that best meets the future challenges facing the economy.

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### *The basic design of public pensions is sound*

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The government has already taken important steps to reform the public pension system. These have included raising the age of entitlement to a pension to 65 years and establishing the New Zealand Superannuation Fund to partially pre-fund future pension liabilities. Overall, the main features of New Zealand Superannuation are well crafted and have successfully erased poverty among the elderly by providing a flat-rate pension to everyone who has satisfied the residential eligibility criteria. As benefits are not income-tested and there is no requirement to retire, the system has also avoided the pitfall of favouring early withdrawal from the labour market. However, since it provides everyone with a basic level of retirement income, it may discourage private saving. Indeed, for some low-income earners, their expected replacement income from NZ Superannuation would allow them to maintain their consumption patterns in retirement, without needing other

income sources. The move to a partial pre-funding approach is projected to alleviate around only a third of the additional budgetary requirements arising from future increases in pension costs.

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*A number of adjustments could slow down the increase in superannuation spending and aid long-run fiscal sustainability*

---

Policy changes will be required to ensure fiscal sustainability over the very long run and, if taken early, small changes in a number of policy areas could be sufficient. This is particularly true for spending on health and public pensions. The fiscal cost of NZ Superannuation could be pared back over time without compromising its many positive features. One option would be to shift progressively the indexation of superannuation payments to an adjustment formula that raises real benefit rates at a slower pace than real wages. However, this would result in lower retirement income for those pensioners who had not compensated for the future loss in NZ Superannuation payments by increasing their private savings. In this context, the authorities would need to monitor the situation closely and ensure that elderly poverty does not re-emerge. An alternative measure would be to lift the age of pension eligibility. This change would help to reduce public pension outlays by providing benefits to a smaller share of the elderly population and would raise participation rates of older age groups. It would be appropriate to consider a mechanism that automatically adjusts pension expenditure for changes in life expectancy.

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*Appropriate incentives to save are embedded in KiwiSaver*

---

New Zealand Superannuation is only one component of a whole set of retirement income arrangements. Ensuring that individuals face reasonably strong incentives to save and to develop an optimal asset mix would improve replacement income in retirement. But only a small proportion of the working-age population is enrolled in a formal private pension scheme, with households typically accumulating a disproportionate share of their capital in the form of housing rather than financial assets. Against this background, the government has introduced the KiwiSaver scheme. Starting in July 2007, it creates investment-based personal retirement accounts on a defined-contribution basis, using the tax system to collect contributions and pass them on to pension providers. One noteworthy feature of KiwiSaver is that, although it is voluntary, new employees are automatically enrolled, with the right to opt out during their first eight weeks. Existing workers can opt in, as can the self-employed and those not currently working. The scheme is a welcome development, which should contribute to raising private savings, although the provisions relating to housing may be counter-productive.

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*Pro-housing elements in KiwiSaver could weaken its effects on financial savings*

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Indeed, some of the benefits of KiwiSaver could be undermined because it explicitly allows households to use “mortgage diversion” of the employee share of contributions, permits a one-time capital withdrawal and provides financial advantages for first-home buyers.

These pro-housing elements may reduce the extent to which the scheme encourages a switch in the allocation of households' net wealth away from housing investment. There have also been some calls for KiwiSaver to be made compulsory. The main advantages of compulsion in the NZ context would be to effect a larger increase in private saving, force households to diversify their wealth portfolios, and help consumption smoothing for some. It could also reduce the fiscal cost of the programme and help deepen financial markets, although a significant voluntary uptake would have a similar effect on the latter. However, for low-income households, compulsion could see their consumption constrained during their working lives by more than they would have otherwise chosen so as to give them higher income in retirement. On the other hand, higher-income households are more likely to be able to rearrange their affairs to reduce their saving in other forms in order to maintain their desired level of consumption. Overall, it is premature to judge whether KiwiSaver should be converted into a compulsory scheme. That judgement should be put off until its take-up rate can be evaluated.

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#### *Competition between different types of private pensions should be fair*

---

The advent of KiwiSaver is expected to affect other players in the pension market such as occupational or retail schemes. To avoid disadvantaging current employer-based arrangements, the government has announced that from July 2007, employer contributions to all registered superannuation plans that meet specified criteria will be tax-free up to a ceiling. This is intended to encourage employers to contribute to their employees' savings for retirement and will provide incentives for people to save through this type of arrangement. But it could lead to substitution effects whereby tax-advantaged occupational schemes crowd out existing retail plans. It would be advisable to maintain a level playing field between all types of pension plans by extending an equivalent tax exemption to retail schemes that have the same savings lock-in requirements.

---

#### *More developed financial markets would facilitate better resource allocation and risk management*

---

With the expected growth of private pension funds in coming years, one task for the government will be to ascertain that there is no impediment to enhancing the depth of financial markets, so that funds can best manage their various risks. At the moment, NZ financial markets are relatively small by OECD standards, despite widespread financial liberalisation undertaken in the 1980s, and bank loans are the main source of financing to both firms and households. Nonetheless, the country scores extremely well on the OECD's indicators of banking and securities market regulation. Developing a better understanding of why some parts of the market remain under-developed and why New Zealanders borrow so much and save so little in the face of high interest rates would allow a clearer assessment of the role that other policy settings might be playing. Well-developed financial markets benefit the country as a whole, as they allow a better allocation of risks at the enterprise and macroeconomic level. They also provide more opportunities for businesses to access funds for investment, potentially at a lower user cost. Finally, financial markets facilitate households' management of their retirement savings portfolios over time. Growth in KiwiSaver accounts is likely to expand financial markets somewhat,



assuming they will not be exclusively used to purchase offshore assets. The level of government bonds on issue has fallen over recent years and is not expected to fall further. In order to support liquidity, issuance has been consolidated into a number of benchmark maturities. In addition, a very deep and active market in interest-rate swaps has developed. Nonetheless, it remains unclear whether this provides a sufficient benchmark yield curve for the economy as a whole and whether increased government bond issuance may be warranted. The current existence of legal opportunities to avoid paying the Approved Issuer Levy – effectively a very low rate non-resident withholding tax on yields – reinforces market incentives for banks and firms to issue bonds offshore rather than onshore: the net impact of removing these opportunities should be assessed. Privatisation of state-owned enterprises, especially those operating in competitive markets, would enhance economic efficiency and could also provide additional options for New Zealand investors.

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*Regulatory changes and financial education could help to improve the environment for saving vehicles*

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Care should be taken to ensure that the financial sector's regulatory structure is sufficiently flexible to respond as circumstances change. New Zealand has a good overall financial regulation framework, with no major regulatory barriers inhibiting the development of its financial markets. However, improvements could be made in some segments. In particular, the regulatory framework for collective investment schemes could be streamlined – as currently proposed by a government review – and harmonised across schemes. Firms offering collective investment instruments need to have an appropriate governance structure and regulators need to ensure that a rigorous approach is taken to disclosure requirements for fees and expenses. This would help consumer choice by improving transparency and facilitating comparisons across products. Further developing financial education by providing information on retirement options is a low-cost measure that could also enhance New Zealanders' awareness of the importance of increasing savings. The government has made a major effort to improve financial literacy and plans to integrate financial education into the school curriculum by 2009. This initiative is welcome, and further efforts in this direction should be pursued.

---

*A coherent, long-term direction for the tax system should be developed*

---

Creating a more favourable environment for savings and investment will also require a well-designed tax system consistent with the objective of raising living standards. The NZ regime has long been regarded as one of the simplest and most efficient in the OECD. Looking forward, however, the system will face challenges. These include risks to the tax base arising from increasingly mobile capital and labour. It is thus important to have in place a clearer strategic direction for the tax system, but this will take time to identify and fully develop. Any changes in the interim should be designed so that they would not be inconsistent with the long-term strategy eventually adopted. Against the backdrop of a currently strong fiscal position, the government has already announced that the forthcoming budget will present a business tax package for implementation in 2008. Any

wider reform should remain consistent with longer-term fiscal sustainability. Moreover, at this stage of the business cycle implementing substantial tax cuts beyond those already signalled could lead to additional monetary policy tightening.

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### *There are two broad options for reform*

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In defining the direction for the tax system, there are at least two broad options that could be considered. One possibility would be to adapt the system within a comprehensive income tax approach. This could include lowering rates and flattening the structure so as to reduce efficiency losses, removing the existing small concessions and resisting calls for the introduction of new tax incentives. Another approach would be to move to a dual income system whereby capital income is taxed at a lower rate than labour income. By lowering the tax on savings and investment, this approach could help to increase the capital stock, which will be critical for future productivity growth in New Zealand. It also has the result that consumption in different periods is taxed more neutrally than in a comprehensive income taxation approach. However, this would require rules to avoid reclassification of employee compensation as returns to capital by owners of small businesses (including farms) especially if the tax rates on labour are considerably higher than those on capital. International experience with implementing changes such as a dual income tax system should be monitored, and developments appraised in light of New Zealand's long-term strategy and objectives. Extending the dual income approach to the point of not taxing capital at all would approximate an expenditure tax. Any option to address the long-term challenges would need to be carefully evaluated against the criteria of efficiency, equity, simplicity and transition costs. Assessments need to be undertaken in an inter-temporal, general equilibrium framework to capture the full impact of each choice.

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### *Weaknesses within current tax bases should be re-examined*

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No matter what strategy is selected, a number of distortions within the present tax bases should be reviewed. *First*, the government has increasingly used the tax system as a tool to deliver on other policy objectives. This has complicated the tax system and has had some adverse effects on individual economic behaviour. The Working for Families package provides assistance to families with children. The package has increased the incentives for some of those on welfare to move towards work and for some to increase their hours of work. But changes in the last Budget extended the income range over which assistance is withdrawn, which has raised the number of families for whom working additional hours becomes less attractive financially because of higher effective marginal tax rates. Alternative ways of supporting families without these negative effects on incentives to work could do more to raise living standards and should be investigated further. Shifting the balance of funding towards more generalised assistance with childcare costs for working parents would be one option. The negative effects could also be partially reduced by cutting the top personal marginal rate, which would also have the advantage of curbing income diversion towards income trusts, which are taxed at a lower rate. *Second*, by proposing tax credits for firms investing in R&D, exporting companies and employers providing skills training, the government has signalled its willingness to depart from a

broad tax base. Any new or existing deviations from the broad base principle should be supported by strong evidence that the benefits exceed the cost. However, if the government wants to offer R&D tax credits, it should at least scale back the grants through which most R&D support is currently provided.

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#### *Raising GST would help to limit the cost of tax reform*

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Large-scale tax reforms are usually financially costly, mainly because losers need to be at least partially compensated. One way to make substantial tax changes without compromising fiscal sustainability would be to raise the rate of the Goods and Services Tax (GST), while keeping the considerable merits of a single rate. For instance, a 1 percentage point increase in the rate would generate almost NZD 1 billion (0.6% of GDP) of revenue. Because GST is a low, flat tax with few exemptions, rebalancing the tax mix toward GST would also reduce distortions to savings and thereby increase future consumption possibilities. The resulting effect on income distribution is likely to be limited, once evaluated in a life-cycle perspective, although if there were concerns about regressivity, they could be addressed, for example, through a modest refundable lump-sum income tax credit.

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#### *A number of other structural reforms need to be completed*

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To the extent that New Zealand is more exposed to macroeconomic volatility than most other OECD countries, the country should aim for regulations and institutions whose design and efficiency are at “best practice” levels. In many areas, reforms have guaranteed that markets are flexible and responsive, but some further efforts are needed, as mentioned in the OECD’s 2007 *Going for Growth* recommendations. *First*, the government’s policy to provide free early childhood education and care for 20 hours per week to all three and four year-olds is heading towards implementation, but there are increasing concerns about the likely availability of places. There is a particular risk that disadvantaged children will be unable to access these services, especially as parallel initiatives to upgrade staff qualification requirements will push up costs. *Second*, educational services require a sharper focus on outcomes, particularly reducing under-achievement of Maori and Pacific Island youth. It would also be desirable to reward the teachers who upgrade their skills and to develop the tools to link remuneration with success in improving educational outcomes. *Third*, proposed reforms to deliver efficient provision of road infrastructure need to be taken through to completion. Congestion pricing should be applied more broadly, together with other measures that enhance efficiency in the use of urban infrastructure and public transport. *Fourth*, further competition also needs to be injected into network industries, such as telecommunication and electricity. In the latter sector, the authorities’ top priority should be to remove policy-related uncertainties currently holding back investment, including those related to climate change.

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*Well-designed policies to address climate change  
efficiently need to be adopted*

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The government has recently renewed its efforts to address climate change. It has released discussion papers on energy and climate change policies, focusing on the years within and also beyond the first commitment period of the Kyoto protocol. A number of measures to reduce greenhouse gas emissions are envisaged, but the authorities have indicated their clear preference for using price-based mechanisms across a wide range of key sectors. However, these documents make clear that the government's willingness to proceed towards implementation of climate change policies depends on the engagement of other countries. It is to be hoped that this requirement will indeed be satisfied.



## Chapter 1

# Raising New Zealand's living standards

*This chapter discusses the main challenges facing New Zealand in meeting the goal of raising living standards. In the near term, the economy needs to shift onto a more sustainable growth path and the stabilisation task of the central bank would be made easier if the government were to pursue a more fiscally-neutral stance over 2007 and 2008. Labour utilisation has been impressive but economy-wide trend productivity growth remains modest. The country has accumulated large net foreign liabilities, the current account deficit is at very high levels, and household saving has fallen sharply. Higher household savings could boost future national incomes, while greater accumulation of financial assets would make it easier for individuals to smooth consumption over their lifetimes. The government is currently a significant net saver, but the Treasury's long-term fiscal projections indicate that adjustments over time to spending and/or taxes will be required to ensure that public finances are sustainable. Against this background, public pensions and other retirement income policies, financial markets and the design of the tax system can each play a key role in helping the country maximise its national income and, thus, its consumption possibilities, over the longer run. As well, several remaining structural reforms still need to be seen through to successful implementation, and policies to tackle climate change effectively still need to be developed.*

New Zealand's living standards, whether measured using GDP or net national income per person, lag well behind the OECD mean and median, even though output expanded at 3% per year on average between 1990 and 2005. Increases in labour utilisation over that period have been impressive, but total economy hourly productivity growth has been lacklustre, especially given the wide range of structural reforms the country has gone through. Several factors may partially explain this outcome, but although the structural policy influences on productivity growth have been extensively canvassed in previous *Surveys*, the persistent gap in living standards is still not well understood. Nevertheless, looking forward, the key challenges are to pursue policies that will provide maximum improvements in productivity and hence living standards for New Zealanders in the long run and to meet the long-term fiscal pressures that are likely to arise from an ageing population.

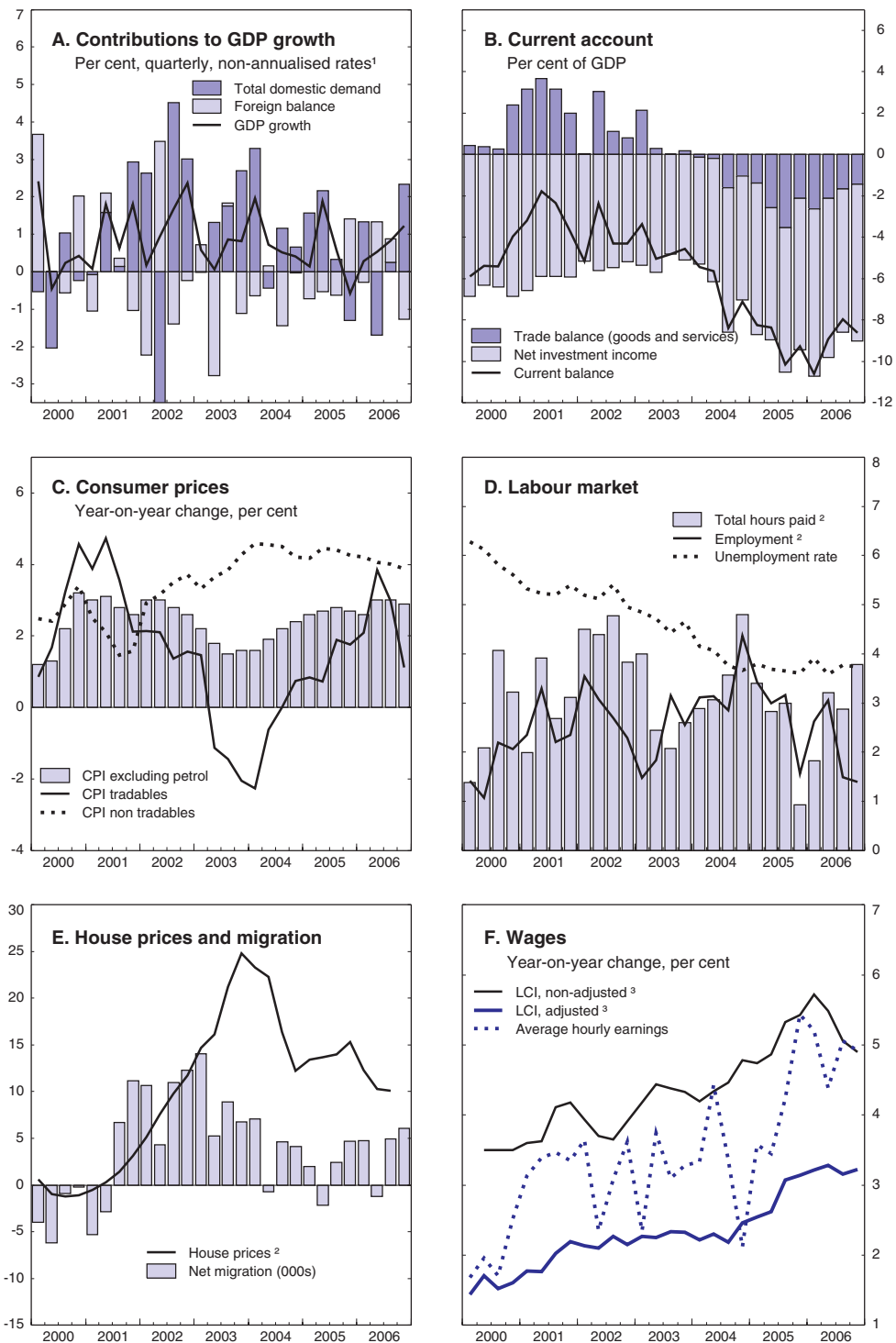
In the near term, the country finds itself faced with an unusual set of cyclical features, and the chapter starts by setting out recent macroeconomic developments, policy settings and short-term prospects. It then looks at how two key medium-term macroeconomic phenomena – large exchange-rate swings and persistent interest-rate differentials – affect productivity growth, and examines their underlying determinants. The country's savings and investment patterns are then analysed in the context of extensive use of offshore finance and the propensity for households to accumulate capital in housing rather than in financial assets in their preparation for retirement. The following section on the key challenges looks at three policy areas where action could contribute to putting the country on a higher growth path, namely; lifting retirement savings, deepening financial markets, and ensuring that tax policies raise required revenues with minimal reductions in long-run consumption possibilities. Finally, the chapter follows up on several points that have been covered in previous *Surveys* where reform efforts still need to be followed through to successful completion and briefly reviews progress towards developing a set of policies to address climate change.

## Recent macroeconomic developments, policies and prospects

### Recent developments

GDP expanded at about 4% per year on average after the brief, sharp dip in 1998 until 2004 and the economy quickly used up its remaining spare capacity. But growth also started to become increasingly driven by domestic demand, with a worsening current account deficit and mounting inflationary pressures providing the most obvious symptoms (Figure 1.1). Growth decelerated to 2% in 2005 and 1.7% in 2006. Nonetheless, the large gains in labour utilisation have been maintained thus far, despite the slowdown, and the unemployment rate is still one of the lowest in the OECD at 3.7% in the December quarter. Unemployment remains more than half a percentage point below the OECD's estimate of its sustainable level, but the slowdown has eased capacity constraints in product markets, and the OECD's estimated positive output gap had been eliminated by the end of 2006.

Figure 1.1. Macroeconomic indicators



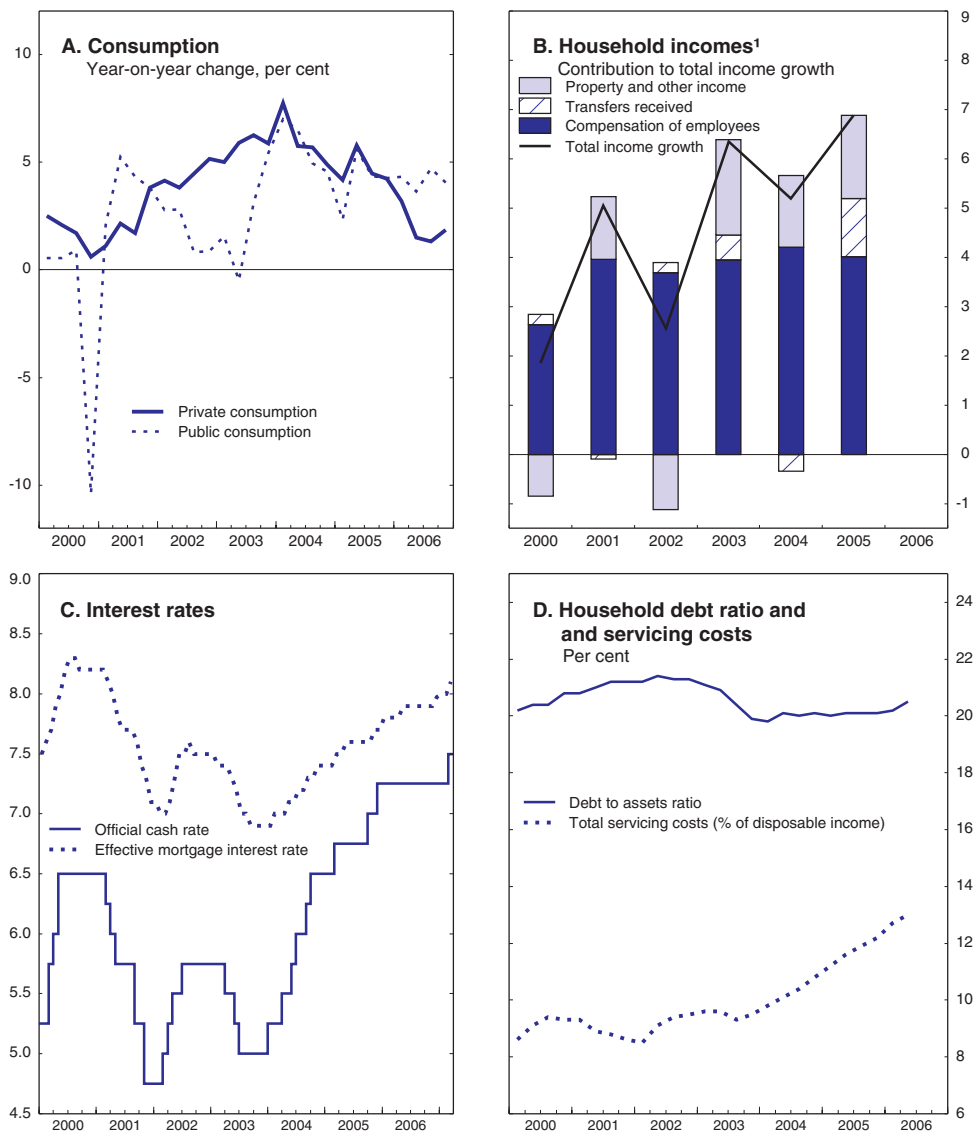
1. The sum of the contributions does not add up to the GDP growth because the data are chained-linked and the statistical discrepancy is not included.
2. Year-on-year change, per cent.
3. The Labour Cost Index (LCI) non-adjusted series includes performance-related and service increments and records a shift if a new employee replaces a previous one at a higher pay rate. These elements are excluded from the adjusted series.

Source: Statistics New Zealand, Reserve Bank of New Zealand and OECD, Economic Outlook 81 database (forthcoming).  
StatLink  <http://dx.doi.org/10.1787/007160182276>



Nevertheless, macroeconomic tensions are still present. Despite a significant tightening in the monetary policy stance over the past three years, underlying inflation pressures, though declining, remain high. The year-on-year increase in headline CPI dropped back to 2.6% in the December quarter and is expected to fall further over the next few quarters. Several factors explain continuing relatively buoyant domestic demand, despite a sharp falloff in private investment.<sup>1</sup> Public consumption continues to expand at between 4½ and 5% year-on-year, adding to job creation (Figure 1.2). Private consumption growth has slowed considerably, but continues to be underpinned by several factors. First, household real incomes increased significantly during 2006, reflecting ongoing high rates of labour utilisation, large real public- and private-sector wage increases and the phased introduction of the Working for Families package. *Second*, households are still

Figure 1.2. **Factors underpinning consumption**



1. Year beginning 1 April.

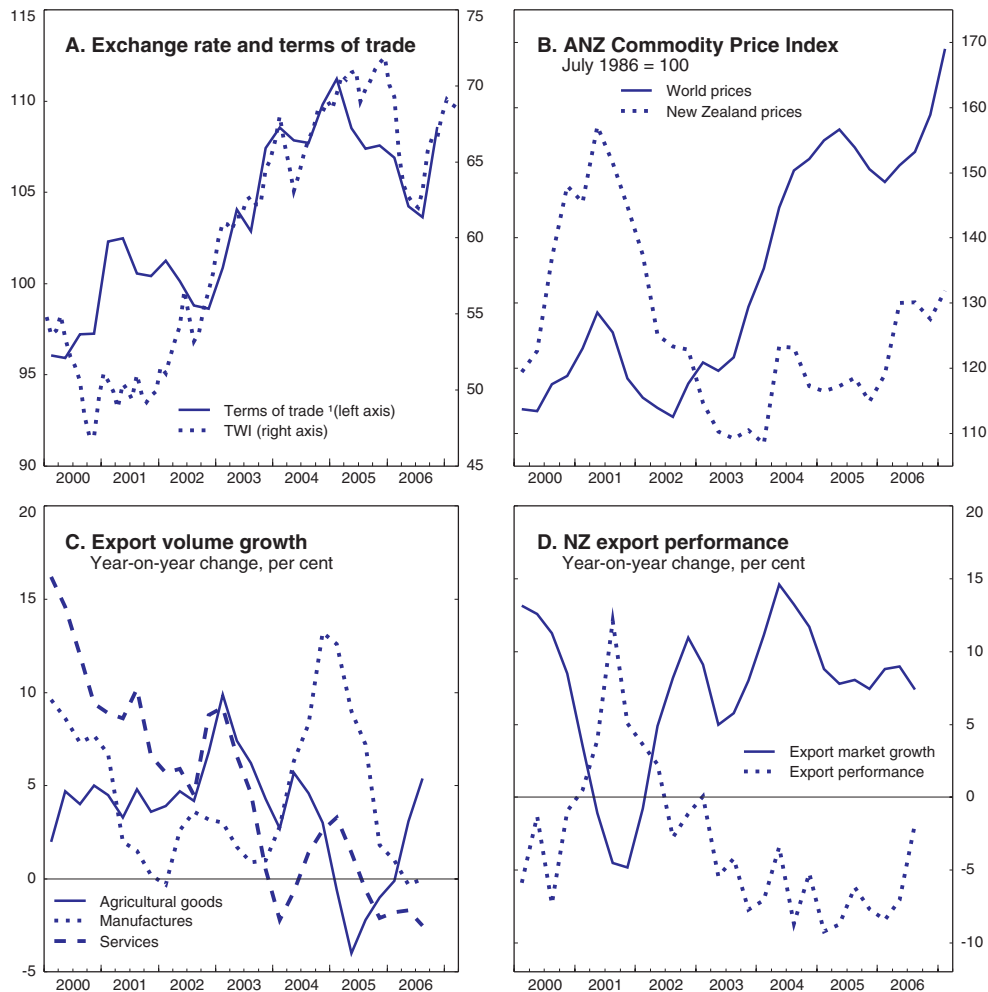
Source: Reserve Bank of New Zealand and OECD, Economic Outlook 81 database (forthcoming).

StatLink <http://dx.doi.org/10.1787/007166724485>

benefiting from favourable real wealth effects as house price inflation remains close to 10%. Third, the main mortgage lenders have been competing aggressively for market share as fixed-rate mortgages have come up for renewal, especially during the latter part of the year, attenuating the increase in effective mortgage interest rates and thus the impact of monetary policy on household budgets.


A more sustainable growth path also requires a switch from consumption to investment and export-led growth: this is taking a considerable length of time and is still far from complete. The current account deficit in the year to December shrank to 9.0% of GDP, compared with 9.7% for the year to June. External adjustment got underway in the first half of last year as the currency fell by 20%. But the NZ dollar then climbed in value during the second half, eventually wiping out almost all the earlier depreciation (Figure 1.3). Indeed, only the agricultural sector has shown a significant improvement in export volumes, and these are attributable to domestic and international supply conditions to a considerable extent. Overall, exporters seem unable to take advantage of buoyant growth in trading partners' demand for imports. The higher NZ dollar has also

Figure 1.3. **External developments**



1. National Accounts price measures for goods and services (1995/96 = 100)

Source: Reserve Bank of New Zealand, ANZ, and OECD, Economic Outlook 81 database (forthcoming).

StatLink  <http://dx.doi.org/10.1787/007204412468>

made imports once again relatively more attractive than competing domestic products. Furthermore, the terms of trade declined throughout 2005 and most of 2006, in part because of oil prices, resulting in a shrinking command over resources for a given level of GDP, before improving sharply in the last quarter of the year.

### **Monetary and fiscal policy settings**

Monetary policy settings have reflected the Reserve Bank's concerns about the persistence of inflation. In its assessment, CPI inflation is likely to stay close to the upper bound of its target range over its forecast horizon,<sup>2</sup> and inflationary expectations provide the Bank with little comfort. The overnight cash rate (OCR) has been tightened by 250 basis points from 5% to 7.5% since the current tightening cycle began at the start of 2004. At present, the Bank is not ruling out further interest rate increases and financial markets are pricing in a further hike in the first half of 2007.

The Bank's task is a difficult one, especially as economic indicators during the course of 2006 and thus far this year have provided quite mixed and difficult-to-interpret signals about whether underlying forces would lead inflationary pressures to dissipate or, alternatively, to become embedded. The Bank has been particularly concerned by the slow deceleration of house price inflation and its apparent resurgence in the second half of 2006, generating further positive wealth effects. To some extent, house prices have been held up by an upturn in net migration inflows – 14 600 net arrivals in 2006 (0.35% increase in population) compared with 7 000 in 2005 – adding to demand pressure on the stock of housing. Because net migration inflows are highly variable and difficult to predict, the housing construction sector may struggle to adjust rapidly to shifts in demand even if there were a readily-available supply of suitable land.

Judgements about monetary policy are made more complicated by global financial conditions and the impact of policy-induced interest-rate differentials on the exchange rate, as shifts in expectations about differentials affect the attractiveness of NZ dollar-denominated assets. In New Zealand's case, virtually all the additional capital inflows over much of the last two years have flowed through the banking system into residential mortgage financing (RBNZ, 2006a). Ample liquidity, low global interest rates and banks competing for market share over the fixed-rate mortgages<sup>3</sup> that came up for renewal during the course of 2006 have contributed to sustained rises in house prices. This "mortgage war" has therefore limited the impact of rises in the Official Cash Rate (OCR) on effective mortgage interest rates.

The key role played by housing markets in the current macroeconomic situation and the competitiveness difficulties being faced by the tradeables sector led policymakers to consider whether a range of supplementary stabilisation instruments could reinforce the efficacy of monetary policy settings (Box 1.1). However, they were unable to endorse any of the options reviewed. Slowing house price inflation and the currency depreciation experienced in the first half of 2006 suggested that imbalances were being resolved, although more recent developments have demonstrated that this is not the case.

In any case, supplementary stabilisation instruments should be assessed relative to the whole range of ways of damping demand. Adjustments to fiscal policy settings provide an obvious alternative. The estimated cyclically-adjusted general government surplus was one of the largest in the OECD in 2006 and the aggregate fiscal policy stance has been neutral or contractionary in recent years (Figure 1.4). But the Treasury forecasts a

### Box 1.1. Supplementary stabilisation instruments

In November 2005, the Governor of the Reserve Bank and the Secretary to the Treasury asked a group of their officials to examine whether ancillary instruments could be used to complement the use of the OCR as the main instrument of monetary policy in managing inflationary pressures. The hope was that such other instruments might alleviate the pressures on the exchange rate by reducing the short-term interest-rate differentials necessary to restrain domestic demand.

The group considered the following six options in some detail:

- *Taxing profits on property purchased for resale.* This could involve giving further publicity to the application of existing tax rules on capital gains (demonstration effect) and increasing enforcement efforts; imposing a requirement to inform the tax administration of the resale of residential properties within a certain period after acquisition; and eliminating the current exemption of residential land from capital gains tax on property sold within two years.
- *Ring-fencing rental incomes.* This would remove the current ability to offset operating losses on investment properties against other, unrelated, income for tax purposes.
- *Improving responsiveness of housing supply.* This would require a range of measures that would increase the speed at which residential construction could respond to rising demand.
- *Linking bank capital to cyclical risk.* This would involve ensuring that bank capital requirements under Basel II rules are better tailored to cyclical risks. (Modifications could also be made to Basel I rules to link capital to loan-to-value ratios.)
- *Setting limits on the loan-to-value ratio.* This would be a comprehensive limit on the loan-to-value ratio, imposed on all lenders and all loans secured by residential property and able to be triggered at the discretion of the Reserve Bank.
- *Imposing a discretionary mortgage interest levy.* The levy would be imposed on all loans, by all lenders, secured against residential property and would establish a wedge between domestic mortgage borrowing costs and returns available to foreign suppliers of funds. It could be triggered when there are both housing market pressures and an unusually large interest-rate differential.

These six options were evaluated against three broad criteria, namely: whether the instrument could be expected to have a meaningful impact on the housing cycle; what other economic impacts it might have (including possibly adverse efficiency costs and effects on different wealth or income cohorts); and implementation issues concerning both how quickly measures could be put in place and their longer-term effectiveness.

In March 2006, the Governor and the Secretary reported their findings to the Minister of Finance. They concluded that there were no simple and readily implemented options available. Although the first four options merited further investigation on structural grounds, only the last two measures would have potential as macroeconomic stabilisation instruments and both of these would involve significant complications and costs that make them unattractive.

Imposing a discretionary limit on loan-to-value ratios would have a limited impact on household wealth, as it would apply only to new loans or refinancing. In any case, new loans typically finance only 80-85% of the value and 100% loans remain the anecdotal exception. It would thus probably have only a modest adverse impact on efficiency (although it would only be invoked in situations where costly imbalances were already present, involving considerable efficiency losses). It would impact primarily on first home buyers, those on lower incomes and small businesses using housing collateral to raise finance. However, effective implementation and long-term enforcement could be difficult and potentially costly.

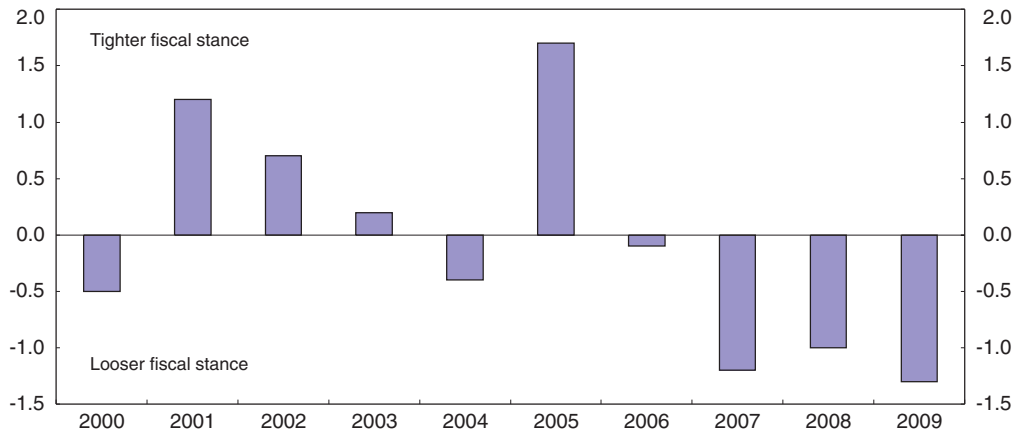
### Box 1.1. Supplementary stabilisation instruments (cont.)

A discretionary mortgage interest levy would affect all residential mortgages and amounts to a tax on this type of borrowing. If effective in damping household demand, the OCR rate could be then set lower. This means that savers – domestic and foreign – would receive lower returns than they would have in the absence of the levy. In turn, at the peak of the cycle the country would be a less attractive place for foreign investors seeking high yields (the so-called “carry trade”), reducing upward pressure on the exchange rate. The levy has the advantage of being a price-based mechanism, which reduces the efficiency losses relative to administrative measures, although enforcement to counteract the incentive for avoidance and disintermediation would also absorb resources. But implementation would present significant difficulties, most notably concerning who would take the decision to impose the tax. Granting a statutory discretionary power to raise a tax without the explicit approval of Parliament violates a longstanding constitutional principle. Giving such authority to the Governor of the Reserve Bank would concentrate additional responsibility in a single non-elected official, while assigning the task to the Minister of Finance would undermine the operational autonomy of the Bank in monetary policy and in return compromise the governance role of the Minister. Overall, these negative aspects would seem to outweigh the appealing advantages of such an instrument.


Source: Treasury and Reserve Bank of New Zealand.

Figure 1.4. Fiscal impulse

Per cent of GDP, year to June



Source: Treasury (2006), Half Year Economic and Fiscal Update.

StatLink  <http://dx.doi.org/10.1787/007251025365>

significant fiscal impulse for the current and next two fiscal years. This stimulus is helping to underpin domestic demand; if the stance were instead neutral, the burden on monetary policy would be easier and policy interest rates could be set correspondingly lower.

While active fiscal policy has its own pitfalls, not least because of the difficulty in responding in a timely fashion, the key advantage of using fiscal policy more effectively at the current juncture is that it could facilitate a fall in the exchange rate and accelerate the external rebalancing process. The current fiscal year is almost complete, and much of the allowance for new initiatives<sup>4</sup> in 2007/08 has already been committed, leaving limited ability to scale back spending plans. However, there should be greater flexibility

around 2008/09 plans. Moreover, to the extent that revenues are higher than forecast, these positive surprises should be allowed to flow through to a larger fiscal surplus rather than used for additional spending, especially as they are likely to be predominately cyclical in nature. Greater fiscal neutrality is likely to be unpopular given public pressure for tax cuts and/or additional public spending that would reduce the projected budget surplus. Nonetheless, exercising greater restraint now could avoid a longer, and possibly more, painful macroeconomic adjustment process.

### **Prospects and adjustment paths**

On current policy settings, the short-term outlook is difficult to predict, with indicators providing mixed signals. The economy may be at a turning point, with the pace of activity starting to pick up again, but this would be welcome news only if the inflationary pressures have indeed been eliminated. Alternatively, the current rebound in activity may be short-lived and the economy may be heading for even slower growth, with a shake-out in employment, as producers try to adjust production to compensate for losses of export competitiveness and weaker demand. The Bank's March Monetary Policy Statement (RBNZ, 2007) put more weight on the pick-up in economic activity being sustained. The task of assessing the cyclical position of the economy is not made easier by the absence of some quarterly and annual National Accounts statistics.<sup>5</sup> Shortening the lag on quarterly statistics would also be helpful. The small fiscal cost of developing the infrastructure to provide this information would have a very high rate of return in facilitating macroeconomic management and providing more robust empirical underpinnings to economic policy advice.

In any event, the necessary adjustments to restore external balance and eliminate inflationary pressures will eventually take place, although the timing and the path of adjustment are uncertain. A period of slow growth is necessary to allow inflationary pressures to completely dissipate, even though this could be painful for some households. And measures that postponed the elimination of imbalances and thus the return to a sustainable growth path would be counter-productive and only add to the ultimate costs of adjustment.

If the dollar remains high, squeezed profits in the tradeables sector will spread through the economy, via slower wage growth, job losses and postponed or foregone business fixed investment. More of the burden of adjustment in this scenario would fall on exporters and import-competing producers, along with their employees, and potentially have more lasting effects on the production side of the economy. Alternatively, the adjustment could come about through households' deciding to cut back their consumption in response to the impact of higher interest rates on their disposable income and stabilising house prices on household wealth. This could involve some hardship for lower-income households, who are more likely to hold debt and to face higher debt-servicing burdens than their counterparts in a range of other OECD countries (Girouard *et al.*, 2007). Another possibility would be a spontaneous shift to higher household saving, perhaps in response to greater awareness of the need to build financial assets for retirement as KiwiSaver gears up.

OECD projections based on information available up to early-April and which, as always, assume a constant nominal exchange rate, would see domestic demand gradually slowing over the course of this year and next year as monetary policy gradually reins in household spending. However, strong wage growth and higher government transfers will

continue to underpin the expansion in private consumption and government consumption is set to continue absorbing a growing share of GDP. The path to restoring internal and external imbalance is likely to be slow, with export performance weakened by the high dollar despite recent terms-of-trade gains. Wage increases should moderate as unemployment rises and capacity constraints ease. Once underlying inflation pressures have subsided, there would be room to start easing monetary policy from around the beginning of next year. When presented on a calendar-year basis, these economic prospects translate into GDP growth of 2.3% in 2007, followed by 1.6% in 2008 (Table 1.1). It should be noted that the apparently stronger activity in 2007 than in 2006 to some extent reflects the carry-over effect of the surge in domestic demand and output recorded in the last quarter of 2006.

Table 1.1. **Economic projections**<sup>1</sup>

	2004	2005	2006	2007	2008
	Current prices NZD billion	Percentage change, volume			
Private consumption	86.2	4.7	2.0	2.5	1.3
Government consumption	25.9	4.1	4.2	4.5	4.0
Gross fixed capital formation	34.8	3.3	-3.4	-0.2	1.4
Final domestic demand	146.9	4.2	1.1	2.3	1.8
Stockbuilding <sup>2</sup>	1.3	-0.2	-0.6	0.4	0.0
Total domestic demand	148.2	4.0	0.4	3.0	1.8
Exports of goods and services	42.7	-0.6	2.0	2.6	5.9
Imports of goods and services	43.8	5.5	-2.5	4.7	6.3
Net exports <sup>2</sup>	-1.1	-1.8	1.3	-0.7	-0.2
GDP at market prices	147.1	2.5	1.7	2.3	1.6
GDP deflator		2.2	2.2	3.1	2.2
<i>Memorandum items</i>					
GDP (production)	-	2.2	1.5	1.7	1.6
Consumer price index	-	3.0	3.4	2.1	2.4
Private consumption deflator	-	1.9	2.9	2.0	2.0
Unemployment rate	-	3.7	3.8	3.9	4.4
Short-term interest rate	-	7.1	7.5	7.8	7.1
General government financial balance <sup>3</sup>	-	4.5	3.9	3.2	2.2
Current account balance <sup>3</sup>	-	-9.0	-9.0	-8.3	-8.8

1. These projections are based on the technical assumption that nominal effective exchange rates remain constant over the projection period. Projections are for calendar years.

2. Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

3. As a percentage of GDP.

Source: Preliminary projections, to be updated in OECD Economic Outlook 81 database (forthcoming).

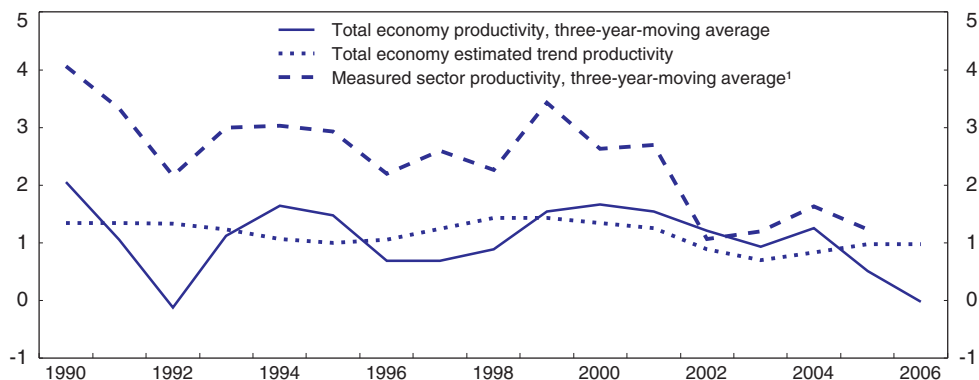
Nonetheless, there remains a risk of a less benign scenario triggered by a sharp shift in foreign investors' sentiment. If they became less willing to hold NZ dollar-denominated assets, this could lead to a large and potentially disorderly fall in the exchange rate. This would restore external balance by boosting exporters' competitiveness and making imports more expensive. But the much higher interest rate premium required to hold NZ dollar assets would flow through into considerably higher market interest rates, putting households' disposable income under stress. Those already facing high debt-service ratios could then find it difficult to continue meeting their obligations.

## Macroeconomic features and productivity growth

Despite the many years of strong growth performance and the extensive structural reforms undertaken over the past 20 years, the NZ economy has failed to make significant progress in catching up to the rest of the OECD, with GDP per person still 13% below the OECD mean and 16% below the median. Labour utilisation has increased substantially, with the employment rate rising from its low point of 57% of the working-age population in 1992 to 66% in 2006. But productivity growth appears, if anything, to be decelerating (Figure 1.5) and total economy productivity growth has been lacklustre at best. Several reasons can be offered that might explain this outcome. *First*, as in many countries, productivity measurement issues are important. Productivity growth in sectors of the economy where official measures of both inputs (labour and capital) and outputs are available has been stronger. *Second*, the large increase in employment that New Zealand has achieved over the past decade may have come at the cost of a temporary decline in productivity growth, as less productive workers were absorbed into the labour force. Indeed, there is some evidence that, until recently, firms have favoured employing additional labour, partly in response to the relative prices of labour and capital.


Figure 1.5. **Productivity growth**

Per cent



1. Year starting 1 April. The measured sector excludes government administration and defence, health, education, residential and commercial property services, business services and personal and other community services.

Source: Statistics New Zealand and Economic Outlook 81 database (forthcoming).

StatLink  <http://dx.doi.org/10.1787/007257606607>

However, although the structural policy influences on productivity growth have been studied in depth, in previous *Surveys* and elsewhere, the reasons for the persistent gap in living standards are not well understood. Further work is required to complete the structural reform process in some areas, but it is possible two potentially inter-related longer-term macroeconomic features are also impacting on the rate of productivity growth. These are the long and large exchange rate cycle and the persistent high interest-rate differential between New Zealand and world capital markets. These two phenomena may affect productivity through several channels. These channels are complex and empirical micro-level and macro analysis, using either New Zealand or international data, is sparse.<sup>6</sup> As a result any conclusions must be necessarily tentative.

*First*, the exchange-rate swings may impose extra adjustment on the real side of the economy through shifts in the demand for tradeables versus non-tradeables. Firms that respond to these swings in relative prices by adjusting production may find themselves



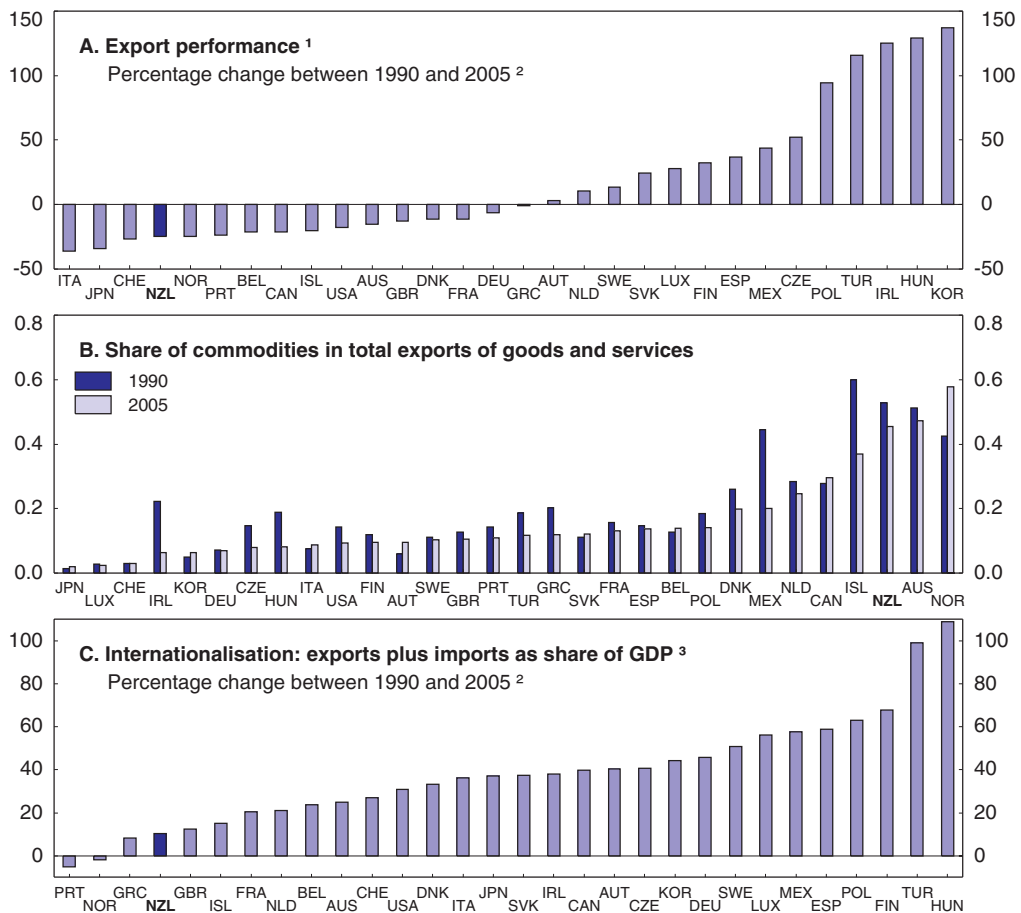
caught out when relative prices reverse. This may lead to stranded assets and under-use of specialised skills, especially if firms are unable to respond rapidly to the shifts. Firms that cannot, or do not, adjust their production mix need greater financial reserves in order to weather the periods when prices are against them so as to maintain activity that may be profitable at average exchange rates over the cycle.

*Second*, they may discourage investment. Firms producing tradable goods and services may be reluctant to invest in productivity-enhancing capital because of uncertainty about future medium-term input and output price combinations. This affects both exporters and those competing against imports. Instruments for hedging exchange-rate risk, such as forward cover or derivatives, are generally of little help here, because they are generally of limited duration and are costly (Briggs, 2004). Furthermore, the user cost of capital is higher because of the interest-rate differential. This means that for an investment project to go ahead in New Zealand, it must generate higher profits than would be necessary elsewhere. Aggregate investment is lower as a result, since fewer proposals can pass the required internal rate of return threshold, reducing the extent of capital deepening and its associated labour productivity growth.

*Third*, the NZ domestic market is so small that growing companies must become exporters at a relatively early stage in their development and face not only the challenges of developing a foreign market presence but also the exposure to currency risk. For some firms, a more rational business decision might well be to relocate the company in the main target market: there are a number of high-profile examples where NZ firms have done exactly that.<sup>7</sup> This may result in a downward self-selection bias effect on aggregate productivity, whereby the less productive firms remain at home as exporters and the more productive ones move overseas. An alternative response is for firms to remain small and forego export opportunities. But this may leave them too small to reach the size needed to achieve economies of scale (Venables, 2006).


New Zealand's overall export performance has been lacklustre, with the country showing one of the largest declines in export performance among OECD countries (Figure 1.6). Its exports of goods and services also remain more heavily commodity-based than any other OECD countries except Australia and Norway. The predominance of commodities in part explains the poor export performance, since income elasticities for food are typically low.<sup>8</sup> But greater diversification into other export products has been slow, no doubt because primary exports are much less sensitive to movements in real exchange rates than non-primary exports<sup>9</sup> (Smith, 2004). More generally, New Zealand has not kept pace with the speed of internationalisation in product markets that other OECD countries have achieved, despite being a "small open economy". This may be because of several factors: *first*, the primary sector is more supply constrained, with biological imperatives making rapid changes in volumes difficult; *second*, the inter-relationship between commodity prices and the exchange rate tends to smooth out variations in farm incomes; *third*, the primary-sector co-operatives are large enough to access a wide range of financial market tools to manage exchange-rate exposure, and *fourth*, primary product markets are amongst the most heavily protected internationally.

Taken together, the possible links between exchange-rate swings, relatively high interest rates and productivity growth make it important to understand better what is driving them. In economies with fully integrated capital markets – such as New Zealand's – interest rates and exchange rates are simultaneously determined through capital flows.

Figure 1.6. **Export performance**

1. Indicators of export performance are calculated for each country by comparing the growth of its export volumes with that of its export market. This shows whether the country's exports grow faster or slower than its markets, i.e. if it is experiencing market share gains or losses over time.
2. 1991 for Czech Republic, Germany and Hungary, 1993 for Slovak Republic.
3. These data do not take account of the import content of exports, which may have risen more rapidly in some countries than others,

Source: OECD, Economic Outlook 81 database (forthcoming).

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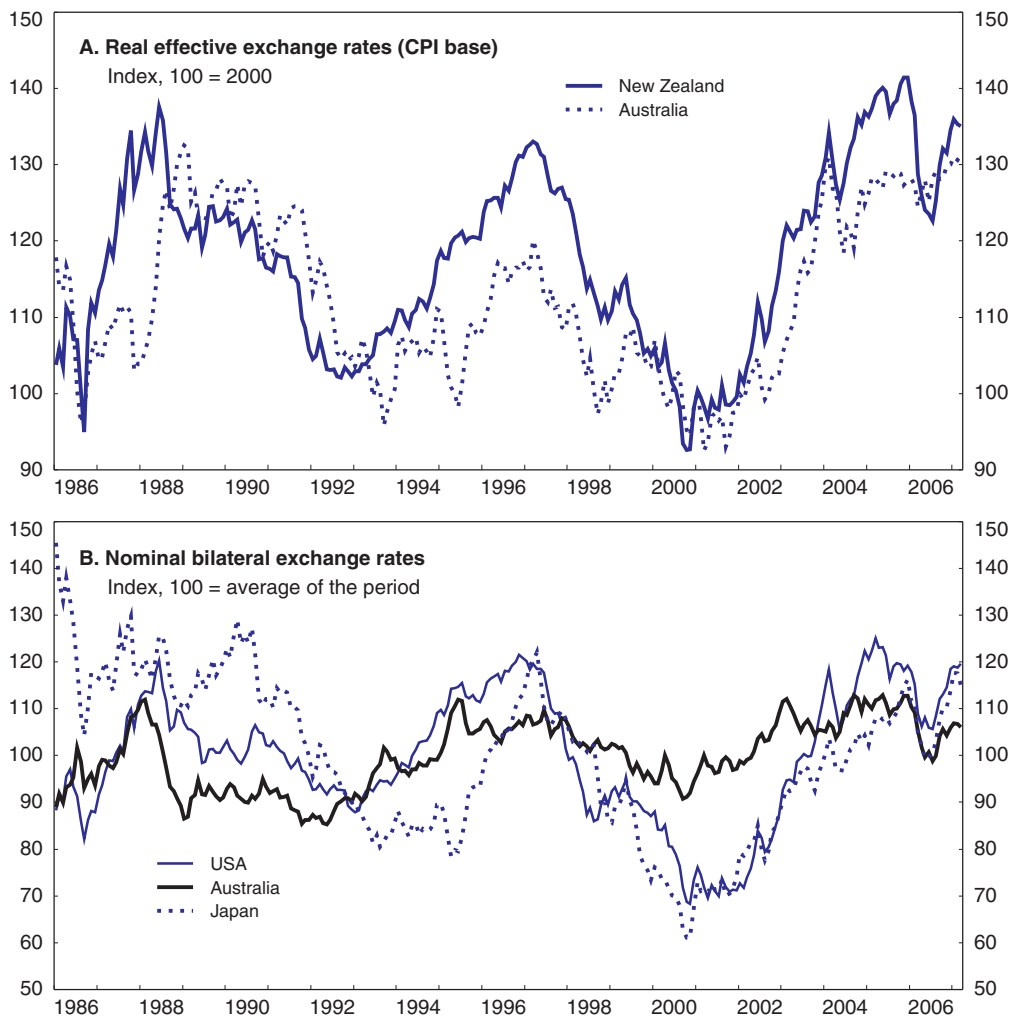
Put simply, if foreign investors can earn a significantly higher rate of return by holding NZ financial assets, then it will be attractive for them to shift into such assets. This generates higher demand for NZ dollars and leads to exchange rate appreciation. But a higher NZ dollar makes exports less attractive and imports more so. This leads to external imbalance unless offset by a slowdown in domestic demand or a subsequent currency depreciation, which, in principle, brings the economy back towards equilibrium.

The underlying real equilibrium exchange rate is unobservable. But various attempts have been made to estimate it, either by assuming that purchasing power parity holds or taking account of such factors as relative productivity growth rates, net foreign assets, terms of trade and government spending (Wren-Lewis, 2004; Munro, 2004; Schmidt-Hebbel, 2006). Overall, these estimations suggest that the underlying equilibrium exchange rate (on a TWI basis) has remained relatively stable over the last 15 years or so, although it may have drifted up a little in recent years. On this basis, given the swing in the real exchange rate, misalignments have sometimes been significant. Even so, it remains an open


question whether these misalignments have a benign or detrimental impact on productivity growth.

New Zealand's real exchange rate has gone through significant medium- to long-term cycles (Figure 1.7). These have largely reflected nominal exchange-rate movements. Bilateral exchange rates with the US dollar and the Japanese yen have experienced especially large swings, whereas movements against the Australian dollar have been more moderate. The evident visual pattern is confirmed by more sophisticated analysis showing that the NZ effective exchange rate is more prone to swings than those of a selection of other countries, including Australia, Canada, Japan and the United States (Bowden and Zhu, 2006; di Giovanni, 2005).

Figure 1.7. **Exchange-rate cycles**



Source: Reserve Bank of New Zealand and OECD (2006), Economic Outlook 81 database (forthcoming).

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Interest-rate differentials with the rest of the world have persisted, although they are more significant against the United States than Australia. This may be because the exchange-rate cycles in Australia and New Zealand tend to show similar patterns. While

short-term differentials largely reflect cyclical considerations, long-term bond rates and mortgage interest rates show significant differentials over the whole cycle. This would imply either that NZ financial markets are not completely integrated with those of the rest of the world, so that arbitrage opportunities cannot be traded away, or that foreign lenders attach a risk premium to financial assets denominated in NZ dollars. This premium is difficult to explain in typical macroeconomic terms – the government is a net saver and there is no evidence of a significant liquidity premium.<sup>10</sup> Instead, it seems most likely to be associated with the longer-term exchange-rate risk (Box 1.2).

Interest-rate differentials are the key driver of exchange rate movements under the asset price approach. But a further factor driving New Zealand's exchange rate is commodity prices (Figure 1.9). It shares “commodity currency” characteristics with its Australian counterpart even though its commodity mix is quite different. The range of estimates available suggests that a 1% rise in the world price of New Zealand's commodity exports is associated with a broadly similar-sized appreciation of the currency.<sup>11</sup> To the extent that the NZ currency moves with world commodity prices, this cushions the impact of the dollar (in both directions) on the commodity producers, stabilising their domestic currency returns. This stands in sharp contrast to the impact on exporters of other goods and services who have to face the costs associated with the full force of currency movements.

In practice, short-term interest-rate differentials, commodity prices and some specific factors all affect the evolution of the NZ dollar (Munro, 2004). In any case, the amplitude of swings in the exchange rate has led to periodic calls to reconsider the merits of alternative exchange-rate strategies. The Reserve Bank has not intervened in the exchange market since the dollar was floated in 1985, although it has had provision for intervention if needed for crisis-management purposes in order to preserve the basic liquidity of the market. However, in 2004, the Bank sought and obtained approval to change its intervention policy to add the specific aim of trimming the peaks and troughs of medium-term fluctuations in the exchange rate where there is a misalignment with “fundamentals” (RBNZ, 2005). It considers this to be consistent with its primary role in conducting monetary policy for price-stability purposes and to avoid unnecessary instability in the exchange rate. And in its judgement, intervening to smooth the extremes of the exchange-rate cycle would generate net benefits to the economy, although those benefits are thought to be small (Orr, 2004). But it considers that the appropriate circumstances justifying intervention would be rare and so far, has not seen fit to do so.

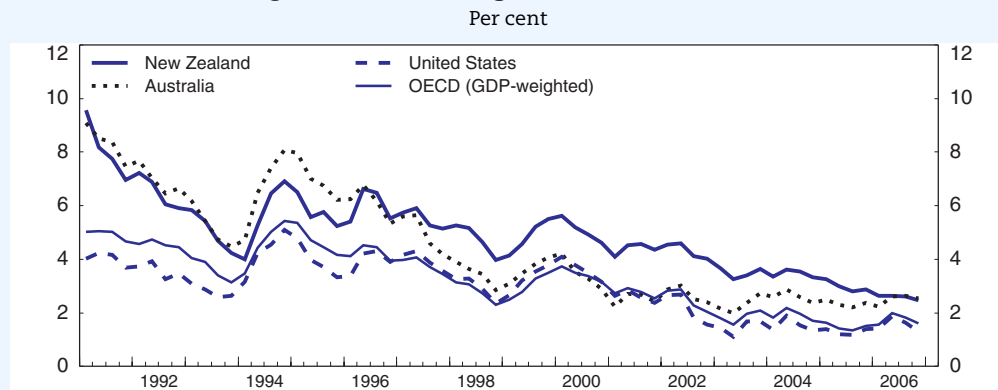
Another alternative put forward from time to time is the option of adopting the Australian dollar or the US dollar (see, for example, Bjorksten and Brook, 2002). Putting aside political considerations, adopting the Australian dollar would have the advantage of expanding the “domestic” market for goods and services and would eliminate the exchange-rate risk for those wishing to trade with Australia (Grimes, 2000). But this would come at the cost of surrendering monetary sovereignty, and, in any case, there is already a high correlation between the Australian and NZ dollar cycles, resulting in more modest exchange-rate risk than against other currencies. In contrast, adopting the US dollar would reduce exchange-rate risk for products priced in US dollars but amplify the bilateral ASD/NZD cycle. Current bilateral trade patterns would make the US dollar a potentially more attractive option since in the TWI calculations, it carries a weight of 31%, compared with only 19% for Australia. Thus, “currency union” options do not appear to offer New Zealand an easy way to attenuate the real exchange-rate cycle.

### Box 1.2. Interest rate differentials

Although real long-term interest rates across OECD countries have fallen significantly over the years, New Zealand's long-term rate has remained higher than other countries except for a brief period in the early 1990s (Figure 1.8) and the premium is considerably larger than could be explained by liquidity or credit risk. Indeed, if 10-year interest rate swaps are compared instead of government 10-year bonds, the gap with the United States has been widening since early 2003 (see Chapter 3).

The conventional view has often focused on economic fundamentals and concluded that the saving and investment imbalances in New Zealand are the primary cause behind the interest rate wedge. In other words, the steady accumulation of foreign liabilities is responsible for a persistent gap in interest rates. In short, New Zealand's heavy reliance on overseas savings is the major factor.

Figure 1.8. Real long-term interest rates<sup>1</sup>



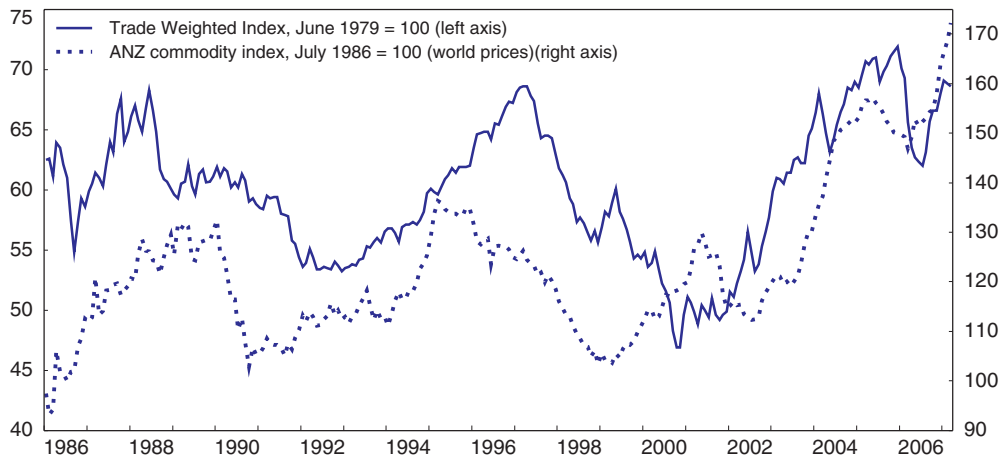
1. The real long-term rate is the 10-year government bond rate minus CPI inflation smoothed by a Hodrick-Prescott filter. Countries included in the OECD average rate are Australia, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, New Zealand, Norway, Spain, Switzerland, United Kingdom and United States.

Source: OECD Calculations, Economic Outlook 81 database (forthcoming).


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This conclusion has been revisited using a framework of co-integration analysis, based on the classical model of loanable funds (Kobayakawa, 2007). However, contrary to the conventional view, this work was unable to find evidence that either the level or the increase of net foreign liabilities contributes to New Zealand's higher rates. While it is beyond the scope of the analysis to identify what exactly causes the persistent interest rate premium, a possible candidate may be the swings in the NZ dollar that last longer than market instruments for managing risk can cover. As a result, risk-averse investors may demand a premium for holding New Zealand dollar assets. The empirical evidence on the average *ex post* return on Eurokiwis suggests that they have been significantly underpriced, relative to their exchange rate risk. However, once the bonds issued in 1996-1997 – which delivered particularly low returns – are excluded, the Eurokiwi risk appears to be appropriately priced (Drage *et al.*, 2005).

Lastly, the so-called “Fed model” (Lander *et al.*, 1997) indicates that the earnings yield of a stock market index and the long-term rate are likely to be co-integrated. Recent evidence using cross-country analysis confirms that there is a long-term relationship between the stock earnings yield and the long-term government bond rate (Durré and Giot, 2007). Given that the earnings yield of the NZ stock market index has generally been higher than in other countries, this could also be a factor behind higher long-term rates.

Figure 1.9. **Commodity prices and exchange rates**

Source: Reserve Bank of New Zealand and ANZ Bank.

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Assessment of the costs and benefits of alternative exchange-rate strategies would be helped by a more comprehensive empirical analysis of the impact of the exchange-rate cycle on productivity growth. This depends on the behaviour of firms in response to exchange-rate uncertainty and the degree to which they are risk averse. Indeed, a survey of business attitudes and currency-management practices in 2000 suggested that there may be considerable foregone opportunities for small firms on the threshold of exporting to Australia and that the dynamic costs of an independent currency may be considerable (Grimes *et al.*, 2000).

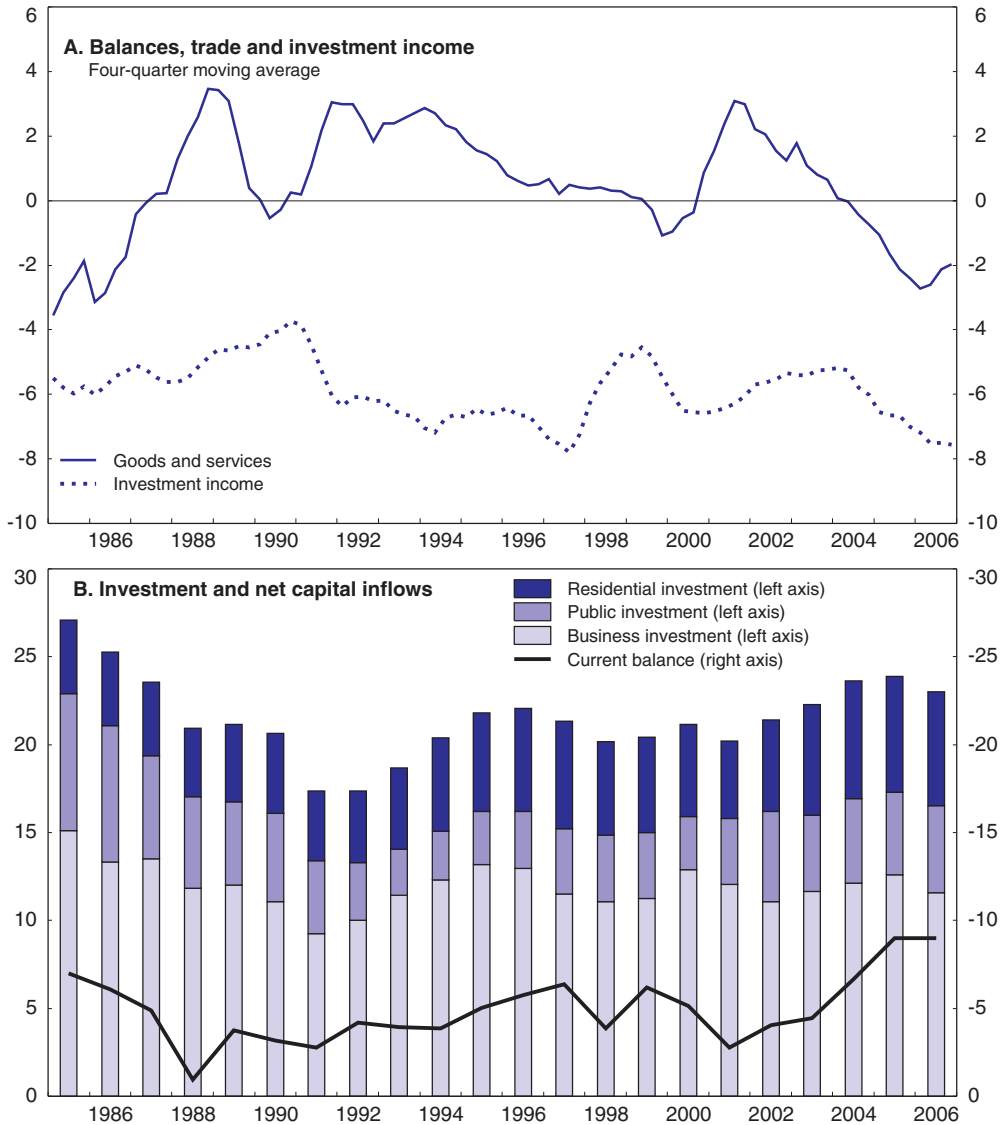
Of course, firms facing currency exposure have the option of reducing their risk using hedging techniques. These comprise natural hedges (such as sourcing some inputs from their main export markets), contracting to shift some of the exchange-rate risk onto their customers or suppliers through their pricing structure, purchase of forward cover contracts or using financial derivatives. But each of these options can be costly, and NZ exporters are reluctant to use them beyond the short term: use of cover for trade-related transactions beyond 12 months ahead is minimal, and longer-term hedging is seen as risky if forward contracts are used and overly expensive if options are taken (Brookes *et al.*, 2000). Thus, most firms choose to ride out the exchange-rate cycle. It is also worth noting that all local firms are affected to a greater or lesser degree, even if they have no foreign-currency transactions. For example, businesses competing with imports will face stiffer price competition when the currency is close to its peak than at its trough. Even companies producing in the non-tradeables sector will be exposed to demand swings as the relative price of tradeables and non-tradeables adjusts to the exchange rate. Thus, the exchange-rate cycle could also have potentially significant distributional impacts on the owners and employees of many different types of firms.

## Savings and investment


The performance of exporters also matters for the sustainability of New Zealand's external position. The trade balance is currently negative, although it has been positive for most of the past 20 years (Figure 1.10). But the country has been drawing on foreigners' savings to finance a share of domestic investment over a long period, resulting in large net

Figure 1.10. **External balances**

Per cent of GDP



Source: OECD (2006), Economic Outlook 81 database (forthcoming).

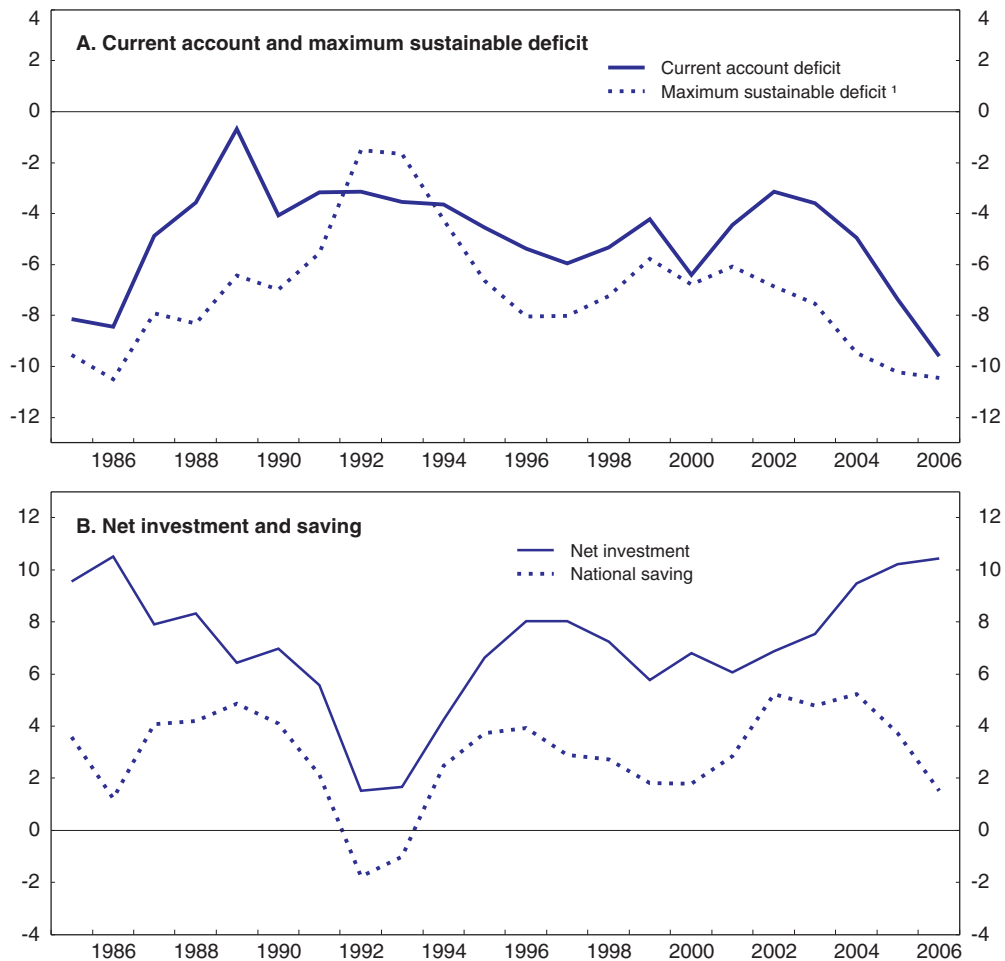
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outflows of investment income that have increased recently to around 7½ per cent of GDP after hovering around 6% for several years. The resulting current account deficit is financed by further capital inflows. This would generally be achieved through a future stream of net exports, although a rise in New Zealand's ownership of foreign assets would also help by generating higher offshore investment income.

Whether the present current account deficit is sustainable depends on the uses to which the capital inflows are put. Capital inflows that finance investment expand the capital stock, resulting in faster growth and greater future productive capacity that has not been constrained by the level of domestic savings available. Within the business sector, it can be reasonably assumed that only those investment propositions that will generate high enough returns to cover the cost of capital will go ahead, generating higher national


wealth at the aggregate level. Put into a balance-sheet framework, the accumulation of net foreign liabilities is matched by increases in physical capital. This is a “win-win” situation that allows both lenders and borrowers to achieve “gains from trade in savings” (Makin, 2005). By extension, it can be argued that the total level of net investment sets an upper limit to the sustainability of the current account deficit (Makin, 2005). And on this basis, New Zealand’s present current account position is very close to becoming unsustainable (Figure 1.11).

Figure 1.11. **National savings, net investment and the current account**  
Per cent of GDP, year ended March



1. The maximum sustainable deficit is defined as equal to total net investment (Makin, 2005).

Source: Statistics New Zealand.

StatLink  <http://dx.doi.org/10.1787/007338882160>

However, the composition of gross fixed capital formation has shifted over the years in a direction that may indicate that the present deficit is less sustainable than the above analysis would suggest. Business-sector gross investment has remained around 12% of GDP over the past decade, but its share of total investment has fallen by around 8 percentage points. Since business-sector depreciation rates are likely to be considerably higher than those for housing and government (infrastructure) investment, the share of



the business sector in net investment has almost certainly fallen further, implying that the future income-generating capacity of total net investment is overstated.

Furthermore, concerns have been raised about whether housing is crowding out “productive” investment. Housing investment has averaged slightly under 6% of GDP over the past 10 years, a rate that shows some upward drift over a longer horizon (Box 1.3). Housing is the most long-lived example of a consumer durable, with the economic characteristics of both investment and consumption. It is an asset that generates a stream of housing services over time. Rental accommodation allows this stream of services to be delivered as a market transaction, whereas owner-occupation represents non-market production and consumption, whereby the owner is, in effect, renting to herself. Thus, housing investment is also productive investment and the distinction is somewhat artificial. Nonetheless, owner-occupied housing expands non-tradeables production and does not generate a stream of market income that can be applied to paying back any foreign borrowing used to finance the investment. Hence, other parts of the economy must do so. Indeed, more generally, the higher the share of GDP that is in the tradeables sector, the easier it will be to maintain a sustainable external position, not least because the exchange-rate channel can play a stronger role in any adjustment process.

Another housing-related concern is that the national savings rate has fallen because the sustained rise in house prices has stimulated housing equity withdrawal, financed indirectly by foreigners. During the 1990s and until 2003 households were, on average, building up their housing wealth by paying off their mortgages. But since then, they have withdrawn equity estimated at around NZD 7 billion<sup>12</sup> (equivalent to 4.5% of GDP in the year to March 2006) (Smith, 2006). This has been more than matched by the upsurge in mortgage debt, largely using funds that NZ banks have raised on international capital markets (RBNZ, 2006a). In effect, this offshore borrowing is financing additional consumption that does nothing to raise productive capacity.

National savings fell to 1.5% of GDP for the year to March 2006. With strong government savings, estimated at around 7% of GDP for the same period, it is clear that the private sector (households and businesses) is consuming well beyond its income and appears to have been doing so for some years. Households have become negative savers, although it is difficult to assess to what extent, given the lack of official institutional sector accounts in New Zealand. A number of reasons have been cited to explain this trend (Hodgetts *et al.*, 2006). One element is the strong increases in wealth arising out of capital gains on housing. Financial-market liberalisation has encouraged financial innovation and made it easier for households to obtain credit and access the equity in their house, while enabling lenders to manage credit risk more efficiently. Ricardian equivalence (where households adjust their saving to offset changes in government saving) may also have played a role.<sup>13</sup> These developments lie behind some of the current cyclical pressures in the economy. However, it is less clear whether saving rates are sufficient from a long-term perspective.

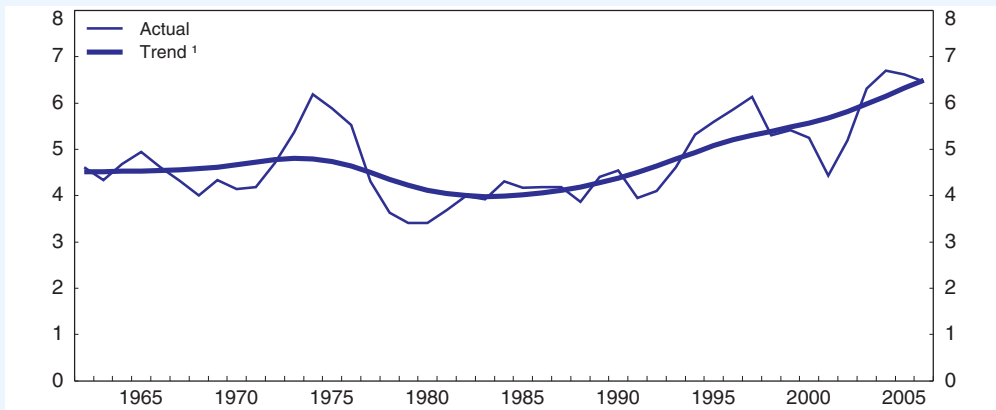
A key question is whether New Zealanders are saving enough if they want to be able to maintain consumption patterns in retirement that are reasonably close to pre-retirement levels. Household balance sheets show that real wealth per person has doubled over the past two decades (Table 1.3). But the gains have been almost entirely due to the accumulation of housing rather than financial assets. And to a considerable extent, this reflects housing asset revaluations.

### Box 1.3. Housing investment

Housing construction has risen over the last 40 years as a share of GDP (Figure 1.12), driven in large part by demographic developments and increases in real incomes. Growth in the share of the population at the typical household formation age also boosts demand, as do high rates of net migration (Girouard *et al.*, 2007). There has also been a considerable expansion in average house size over the decades even though the average occupancy rate had fallen, before stabilising in the last two decades (Table 1.2). This trend is not surprising, since housing services are a “normal good” in the sense that demand rises with income.

Figure 1.12. **Housing investment**

As a share of GDP



1. Hodrick-Prescott filter.

Source: OECD, Economic Outlook 80 database.

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Table 1.2. **Features of the current housing stock**

	Share of housing stock Per cent <sup>1</sup>	Average size m <sup>2</sup>	Average occupancy rate (persons per dwelling) <sup>2</sup>
Pre-1920s <sup>3</sup>	5.3	144	4.3
1920s	4.6	137	4.2
1930s	3.2	136	3.9
1940s	5.0	119	3.7
1950s	11.1	121	3.6
1960s	15.0	131	3.5
1970s	18.7	146	3.2
1980s	13.0	149	2.8
1990s	13.2	173	2.7
2000+	4.1	194	2.7

1. The age of the remaining 7% of the housing stock was either unknown or mixed.

2. From census taken in the sixth year of the decade.

3. Statistics are for the 1910s, except for the share of the housing stock.

Source: DTZ New Zealand Ltd (2004), “Changes in the Structure of the New Zealand Housing Market”, Vol. 1, Statistics New Zealand.

**Box 1.3. Housing investment (cont.)**

Real house prices play an important signalling role in stimulating more housing construction, with a small but significant positive relationship across OECD countries between the so-called “Tobin’s Q” – a measure of the ratio of nominal house prices to the housing investment deflator – and residential construction (Girouard *et al.*, 2006). A more in-depth investigation into New Zealand’s housing markets drew a similar conclusion that, *all else equal*, a 1% increase in the housing stock decreases real house prices by 0.7% in the long term (Grimes *et al.*, 2003). Nonetheless, these aggregate figures obscure a considerable amount of regional variation: the most rapid growth in real prices has taken place in the Auckland and Wellington regions, making internal migration to those areas more expensive. It also points to the importance of designing local-authority regulation so that it affects the speed with which urban land can be made available for housing investment. Flexible land-use policies can help to avoid long-lasting mismatches of supply and demand that become reflected in house prices that are significantly out of line with fundamental ratios.

However, it is less easy to judge whether the existing housing stock is currently over-valued at the national level (Girouard *et al.*, 2007). The ratio of the price of housing relative to incomes has risen steeply in recent years in both New Zealand and a range of other OECD countries. To some extent, this could reflect an inadequate supply response. In contrast, when the actual price-to-rent ratio is compared with the estimated user cost of owning a house, the country’s residential real estate market appears less significantly over-valued, in contrast to housing markets in Australia, Ireland, the Netherlands, Spain and the United Kingdom. However, this latter comparison should be interpreted with caution. The price-to-rent ratio is calculated from the nominal house price index divided by the rent component of the consumer price index and, as such, it does not take into account expected capital gains. The user cost of ownership measure includes a moving average of overall consumer price inflation as an estimate of expected capital gains.

**Table 1.3. Household wealth**  
NZD billion

	1985	1990	1995	2000	2005
Housing assets	73	126	183	232	506
Financial assets	47	72	102	126	162
Total assets	120	198	285	358	668
Financial liabilities	14	28	48	78	142
Net wealth	106	170	237	280	526
Real wealth (2005 NZD billion)	214	225	286	311	519
Real wealth per person (2005 NZD 000s)	64	65	78	81	127

Source: RBNZ and OECD calculations.

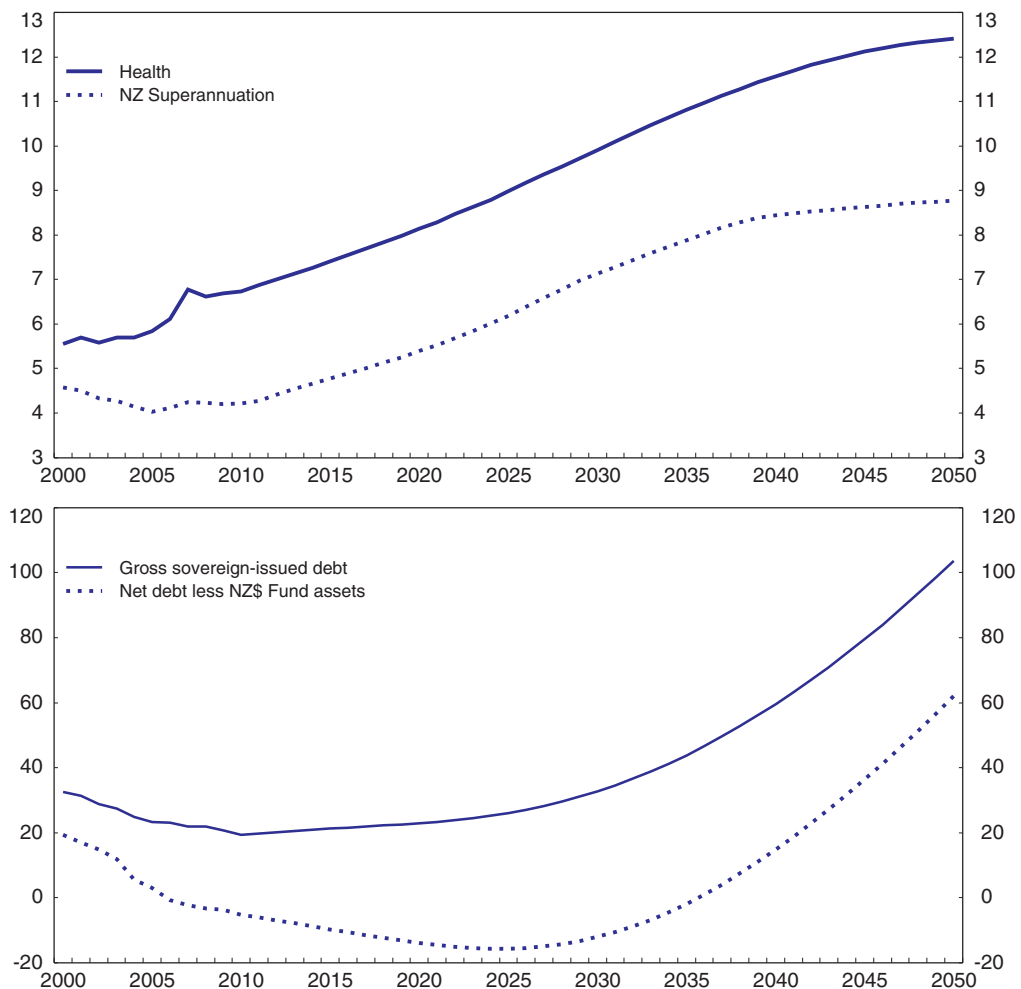
The extent to which households might want to accumulate financial assets that they can then draw down during retirement is significantly affected by the public pension system. All people are entitled to receive New Zealand Superannuation (NZS), the universal public pension, from age 65 years onwards, subject only to a residency requirement. This provides a floor for retirement income, such that, for around 30% of the current working-

age population, no additional savings would be required to enable them to smooth consumption over their lifetimes (Scobie *et al.*, 2006). For those in this group, it would not be rational to save. It is more difficult to make an assessment for the remainder of households. In practice, participation in private superannuation schemes is very low, suggesting that many people will experience a major drop in income when they retire from the workforce. The government is already endeavouring to address this through the introduction of the workplace-based KiwiSaver scheme, tax exemptions for employer contributions to superannuation schemes and financial education. It remains to be seen whether these measures will generate a significant increase in household saving rates.


As noted above, the government is a significant net saver and has adopted a partial pre-funding approach to meeting its future public pension obligations by accumulating financial assets in the NZ Superannuation Fund. Pre-funding will cover only around 15% of future NZS costs. This equates to about 30% of the increase in costs, given that expenditure on NZS and health (including long-term care) could each double as a share of GDP over the next 50 years (Figure 1.13). On Treasury projections, further changes to spending and/or

Figure 1.13. **Long-term fiscal projections**

Per cent of GDP



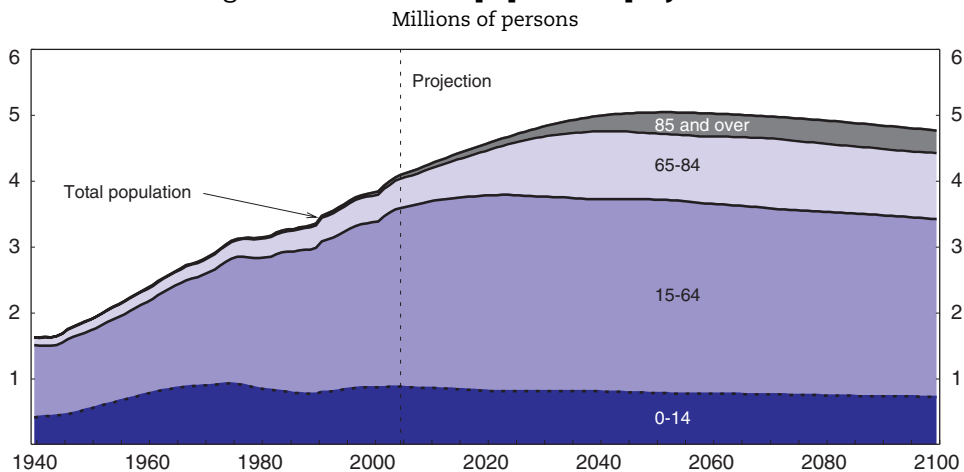
Source: Treasury (2006), Statement of Long-term Fiscal Position.

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taxes will be required to ensure public finances are sustainable over the very long term. On present policy settings debt ratios would rise, albeit from very low levels, from the 2020s onwards. The associated fall in national saving that would imply is another factor to be taken into account when considering the country's ability to generate future current-account surpluses. Despite the size of the current budget surplus, significant tax cuts that were not matched by policy changes to reduce public expenditure would result in a deterioration in this outlook, and make the task of ensuring a sustainable fiscal position more difficult.

A key assumption underlying these projections concerns life expectancy.<sup>14</sup> They are based on the median population projections of Statistics New Zealand, which assume that gains in life expectancy slow over the projection period to reach an end-point of 83½ years for men and 87 years for women in 2050. On this basis, the share of those over age 65 would expand from 12% of the population in 2006 to 26%, while the overall population stabilises before falling slightly from the middle of the century onwards (Figure 1.14). However, Statistics New Zealand's alternative low-mortality projection would see life expectancy climb to 86 years for men and 89 years for women, leading to an additional 105 000 people aged over 65 years in 2050 (equivalent to a 2 percentage point increase in the share of over-65s in the population). Even this assumption assumes a smaller increase in life expectancy than has actually been experienced over the past two decades. This past rate, if continued, would correspond to 91.3 years for men and 92.9 years for women in 2050. This would result in 1.56 million NZS recipients in 2050 compared with 1.32 million in the long-term fiscal projections and 490 000 in 2004. The risks to the fiscal projections associated with assumptions about mortality rates are thus considerable.

Figure 1.14. **Baseline population projections**



Source: Treasury (2006), Statement of Long-term Fiscal Position.

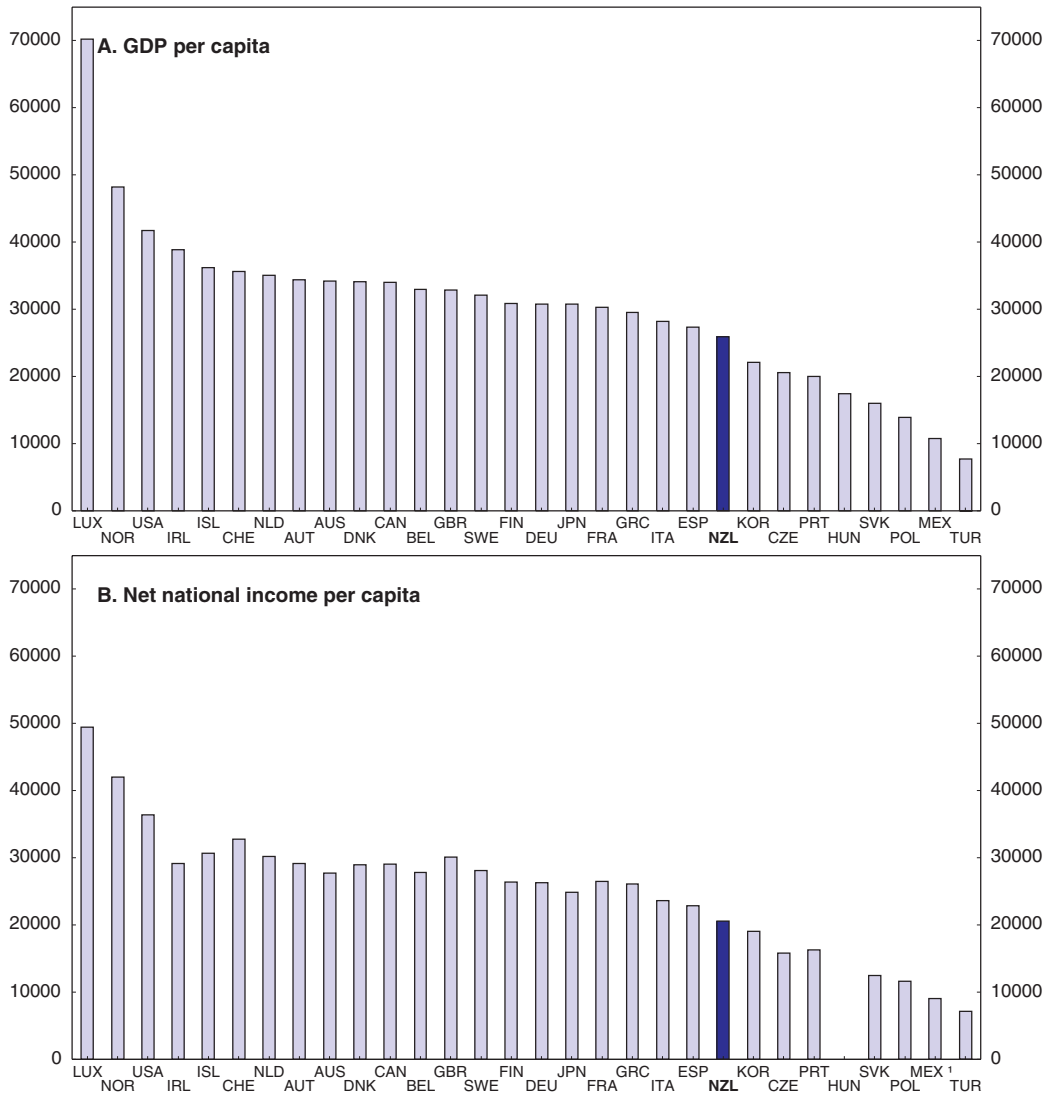
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## Key challenges

The underlying goal of New Zealand's economic policies is to raise living standards for all its people. This has been expressed as the ambition to lift the country's per capita GDP into the top half of the OECD. In fact, what matters even more is lifting net national income (NNI) per person, which is a better approximation to the resources that New Zealand residents actually have available (Figure 1.15). For New Zealand, the difference in concepts


Figure 1.15. **GDP and net national income per capita**

USD current prices and current PPPs, 2005



1. 2004.

Source: OECD, Annual National Accounts database.

StatLink  <http://dx.doi.org/10.1787/007517860186>

may become increasingly important: the size of its net foreign liabilities means that a share of the future income generated from production will flow offshore to foreign investors, leaving less than 100% of GDP available as domestic incomes. If such outflows are the result of greater investment, then GDP will be higher overall and New Zealanders will still reap benefits in the form of higher wages and non-wage incomes. However, to the extent that they represent loans to finance consumption (including housing), then less GDP will be generated over time for the same level of net foreign liabilities, and repayments will still need to be financed, lowering net national income.

### **Policy challenges looking forward**

Income levels would be higher in the longer run if policy settings were better tuned towards encouraging economic players to make savings and investment decisions for the future that both lift productivity growth and allow the country to respond efficiently and equitably to the changes associated with an ageing population. This *Survey* focuses on the scope for improving living standards for New Zealanders through three main channels. These are: improving policies for retirement savings, deepening financial markets and ensuring the tax system adapts to evolving circumstances.

New Zealand's public pension arrangements have many strengths, and the government has taken recent steps to encourage individuals to build up their retirement savings. Nonetheless, there may be scope for trimming back the long term cost of New Zealand Superannuation, especially given the fiscal risks associated with life expectancy developments, without jeopardising equity objectives. At the same time, policies being used to encourage household savings, especially for retirement purposes, may embody some perverse incentives that will undermine their success. And the tax treatment of income from financial assets *versus* housing may tend to discourage New Zealanders from diversifying their wealth portfolios from their heavy emphasis on housing and towards financial assets. These issues are analysed in detail in Chapter 2.

Higher household saving rates and a build-up of private pension-fund assets would contribute to developing deeper domestic financial markets, which could, in turn, facilitate economic growth. Efficient capital markets provide the instruments that allow businesses and households to make efficient inter-temporal decisions. They can help to smooth economic variations and manage risk as well as enable capital to move quickly and easily to its most productive uses, especially in response to changing technologies and opportunities. Comprehensive financial markets are also needed to provide a suitable range of retirement savings vehicles through which households can develop a wealth portfolio that provides them with the highest rate of return, given the amount of risk they are willing to accept. But at present, New Zealand's financial markets are small relative to GDP and dominated by the banking sector. Factors affecting the evolution of financial markets and encouraging their role in promoting growth are explored in Chapter 3.

Creating an optimal environment for retirement savings depends in part on a well designed tax system that provides optimal incentives to work, save and invest without compromising long-term fiscal sustainability. Public pressure has been building for tax cuts (along with further spending increases) on the basis of the currently large budget surplus, although, for the reasons outlined above, there is less room for manoeuvre than the public appears to appreciate. Easing the overall tax burden may be desirable, but only if it involves reforms that result in a simpler, more efficient and equitable system that will meet challenges facing it. In this context, and although the NZ tax regime has long been regarded as one of the most efficient in the OECD, it would be appropriate to carry out a stock-take of the challenges facing the system and put in place a clear long-term strategy for addressing them. The options need to be evaluated from an inter-temporal and economy-wide perspective in order to ensure that the tax system will promote higher living standards over time. This strategic approach would provide a framework within which specific proposals for tax changes could be assessed, but will take time to develop. Tax measures in the interim should be designed to ensure that they are consistent with the long-term strategy ultimately adopted. Chapter 4 sets out the issues and the options that

the country could consider as well as a number of the limitations of current tax bases than will need to be tackled.

### **Progress in implementing structural reforms**

Raising productivity growth through completing structural reforms that improve the efficiency and flexibility of product and labour markets remains an important route to lifting both GDP and NNI per capita. Indeed, given the swings in the exchange rate, the country needs policies that make it possible for firms to respond to changing relative prices quickly and without impediment. A number of outstanding structural reform issues that have been covered in some detail in previous *Surveys* still remain to be tackled or need to be seen through to successful completion, as spelt out in Annex 1.A1. Developments in several areas are set out below.

On the human capital and social side, the government's strategy for increasing access to *early childhood education and care* is progressing. The fee structure has now been established for funding approved early childhood education services for up to 20 free hours per week for three and four year-olds, allowing centres to prepare for implementation from 1 July 2007. But in March, 30% of existing centres surveyed said that they had decided not to offer free services, while another 46% were undecided.<sup>15</sup> It has also become apparent that even if all centres agreed to offer free services, there would still be insufficient places across the country to provide for all children in the age cohort, if parents wished to enrol them. These teething problems will need to be addressed. It will also remain important to monitor take-up rates to ensure that scheduled increases in required staffing qualifications over the next few years do not further compromise access, especially for disadvantaged children.

Separate programmes within the school system designed to improve *socio-economic outcomes for Maori and Pacific Island youth* are starting to bear fruit, with noticeable improvements in educational attainment. The shares of Maori and Pacific Island students leaving school with little or no formal attainment have trended down in recent years, and the gap with NZ students of European descent is shrinking (Ministry of Education, 2006). The share of school leavers qualified to attend university for these ethnicities is also rising, albeit at a slower pace than for other groups. Nonetheless, sustained efforts are needed to further improve educational outcomes for under-achieving groups. Since effective teaching practices have been identified as critical factors, it would still be desirable to reward the teachers that upgrade their skills by linking career opportunities (or advancement) and overall remuneration packages more closely to outcomes.

In *telecommunications*, the government announced in May 2006 that it would require full unbundling of the local loop to promote the deployment of fast, competitively-priced broadband. The Telecommunications Amendment Act (2006) also requires the operational separation of Telecom New Zealand Ltd. The government is also undertaking a review of the Telecommunications Service Obligations (TSO), focussing on delivery of rural services. The Telecommunications Commissioner has recommended to the Minister of Communications that mobile termination rates be regulated, but a decision has yet to be made. The Commissioner has also more recently launched a review into roaming and co-location services in the mobile telephone market. Rapid resolution of these competition issues is needed to enable the industry to deliver more efficient communications services to the public as soon as possible and help the government to deliver on its Digital Strategy (New Zealand Government, 2005).



The country's first toll road is now being built as part of efforts to improve the *roading infrastructure*. It is a small start, involving only 7.5 kilometres of motorway north of Auckland. Nonetheless, Transit New Zealand and Land Transport New Zealand are working together to develop an electronic toll collection and administration system in time for its expected opening in 2009. Once this system is in place, it could be applied more widely in upgrading the highway network to reduce bottlenecks and provide a closer link between road usage and the cost of construction. Congestion pricing options within urban areas have also been examined more closely for Auckland, and a single-cordon, double-cordon or area scheme could all help to ease congestion (Ministry of Transport, 2006). But there is strong public opposition to using the price mechanism, and the government's strategy is to concentrate its efforts on building support through information and education. Nonetheless, congestion pricing remains a promising tool for dealing with urban congestion, although it needs to be part of a broad strategy encompassing other measures such as more pro-active traffic operations management, improved public transport, mobility management and optimising urban roading infrastructure (CEMT and OECD, 2007).

Investment in *electricity generation and transmission* has been held up by ongoing uncertainty about the regulatory framework governing the sector and climate change policies (see below). In October 2006, the government released its revised Policy Statement on Electricity Governance, clarifying the statutory objectives for the Electricity Commission. In December 2006, it published a draft National Energy Strategy, inviting submissions by the end of March 2007. It is hoped that these will provide a transparent and durable regulatory framework for electricity without further delays, and the right incentives to promote efficient, market-based outcomes.

### **Climate change**

Another topical issue is New Zealand's approach to the global challenge of climate change. The country's greenhouse gas emissions are currently around 21% above 1990 levels, with agriculture emissions up almost 15% and transport and electricity emissions about 34% higher. A set of policies including a proposed carbon charge was initially announced, but then withdrawn. A new series of whole-of-government work programmes on climate change policy was commissioned in December 2005 and a suite of discussion papers related to climate change policies were released in December 2006.

The government's approach lays out the challenge facing New Zealand as being how to design immediate- and longer-term climate change policy measures that capture the potential benefits of emissions pricing, minimise costs and best enable New Zealand to achieve its integrated sustainable development goals. Furthermore, in her opening statement to Parliament in 2007 the Prime Minister stated her government's aspirational goal of making New Zealand carbon neutral and announced some measures to promote the use of biofuels. Notwithstanding this, the discussion documents make clear that the pace and stringency of New Zealand's response to climate change should be aligned with national interests and in step with the efforts being made by major international emitters, including the country's main trading partners.

Two of the discussion papers deal directly with measures to reduce greenhouse gas emissions.<sup>16</sup> The *Transitional Measures* discussion paper explores ways to reduce greenhouse gas emissions in the stationary energy supply sector before 2012. The *Measures to Reduce Greenhouse Gas Emissions in New Zealand Post-2012* discussion paper aims to start a

dialogue on preferred policy measures beyond 2012 to reduce the country's emissions and to protect and enhance its forest carbon sinks (Box 1.4). Although no decisions have been made, the government states clearly that it views positively the use of an efficient price-

#### Box 1.4. Policy options for reducing greenhouse gas emissions

Price-based measures, also referred to as market instruments, can be applied to internalise the costs (or opportunity costs) of greenhouse gas emissions in economic decision-making, thereby influencing choices made about production, consumption and technology development. Price-based measures can be applied narrowly or more broadly across whole sectors or multiple sectors of the economy.

In the longer term, a broad price-based measure such as emissions trading could potentially be applied across the NZ economy. But the government expects different sectors might follow different pathways towards increasingly stringent emission constraints and emission pricing over time.

An emissions trading scheme would require emitters to hold tradable units or allowances that match some or all of their greenhouse gas emissions over a defined period. Limiting the quantity of emissions permits and allowing trading ensures the least-cost means of compliance. Emissions trading could be achieved through one of three models: cap and trade, baseline and credit trading, and offsets trading.

Alternatively, a predetermined charge per unit of greenhouse gas emitted, if applied to all emitters, would create an incentive for firms to reduce emissions, starting with those who face the lowest abatement costs and continuing up the marginal abatement curve until it is no longer cost-effective to do so.

The key difference between the two approaches is that under the charge, the government sets the price and allows market forces to determine the extent of emissions reductions whereas under emissions trading, the government sets the level of emissions and the market determines the price.

Regulatory options could include amendments to the Resource Management Act 1991 (RMA) or the Electricity Act 1992. For example, regulations could impose offset requirements, emission limits or performance standards. In the case of the RMA, such measures could give local government the responsibility for administering direct emissions of greenhouse gases.

With emission reduction agreements, a firm or sector would make a commitment to the government to manage its emissions or meet specified targets. Commitments could be voluntary or mandatory, and the consequences of non-compliance could be binding or non-binding.

The transitional measures paper lists three additional categories of policy measures that could be applied to the stationary energy supply sector: renewable obligations, incentives/subsidies and project-based measures. Such measures should enable a transition to longer-term policy options where the cost of greenhouse gas emissions would be reflected in the relative cost of the fuels that produce greenhouse gas emissions. And they should ensure that investors in new generation face a price signal that reflects the value of greenhouse gas emissions avoided for renewables, relative to fossil fuels, either immediately or over a transitional period. Owners of existing fossil fuel generating capacity would follow a transitional path to facing the full cost of greenhouse gas emissions.

The post-2012 paper also considers the extent to which decisions on longer-term implementation measures can, or should, be made now, rather than left for future decision-makers. There is a trade-off between taking early decisions – so as to create more certainty for business investment and provide clearer signals about the need to both reduce emissions – and the need to remain flexible enough to accommodate current uncertainties about the future international framework for addressing climate change (thereby retaining options value). One possibility would be to define the measures' architecture now but leave decisions about their stringency across different sectors open, while another would be to outline a set of principles for when measures would be applied and how stringently, but not specify actual measures until the international situation is clearer.

Source: Ministry of the Environment.

based measure (e.g. emissions trading) in the stationary energy supply sector as a start that could be more broadly applied across key sectors of the economy after 2012.

Consultations on the discussion documents are taking place over the first quarter of 2007. Officials will then develop a set of longer-term sectoral emission reduction goals (and possibly an overall emission-reduction goal), and a policy package will be drawn up for the Cabinet to consider. Even then, the likely evolution of policy remains unclear as the country is cautious about moving too far forward ahead of the international policy framework.

## Notes

1. Business investment includes the purchase of aircraft in the September quarter and shows a fall once this lumpy item is excluded.
2. Two factors produced an unusually low CPI result for the December 2006 quarter and will lead to apparently lower CPI inflation during 2007. First, petrol prices fell sharply and second, the reweighting of the CPI is estimated to have lowered headline inflation by 0.3 percentage point. In contrast, core inflation is expected to remain closer to 3% throughout 2007.
3. Floating rate mortgages comprise 16% of the total, 34% of fixed-rate mortgages have a duration of less than one year, 25% have a renewal period of between one and two years, and 25% have rates fixed for more than two years (RBNZ, 2006b).
4. The fiscal outlook includes an unallocated operating allowance for new initiatives each year. These amount to an additional NZD 2 billion (equivalent to around 1.2% of GDP in 2006) each year, except for 2008/9 when another NZD 1 billion is included to cover the promised business tax package. The details of this package will be announced in the 2007 Budget to be presented to Parliament on 17 May and will be implemented from 1 April 2008.
5. This would mean aiming to produce Tables 0101 to 0112 of the standardised OECD-Eurostat Questionnaire on a quarterly basis and the full set of National Accounts on an annual basis. This would include producing the following on a quarterly basis: GDP measured on the income side, along with employment, salaries and wages and compensation of employees by industry. On an annual basis it would include the following accounts by institutional sector: generation of income; allocation of primary income; secondary distribution of income; use of disposable income; change in net worth due to savings and capital transfers; and the acquisition of non-financial assets.
6. One of the few pieces of empirical firm-level analysis was carried out using Canadian data covering a 10-year period during which the Canadian dollar experienced a 30% appreciation in the first five years followed by a 30% depreciation over the subsequent five years. The authors found that the exchange rate swings had considerable impacts on firm survival, sales and entry rates and the effects were asymmetric, consistent with a hysteresis hypothesis about firms' behaviour (Beaulieu et al., 2005).
7. As an example of the government's concerns about firms shifting offshore, in 2006 the IT company Right Hemisphere was offered an interest-free loan of NZD 14 million on the condition that it would maintain its presence in New Zealand for a further three years.
8. Estimated income elasticities for food products range from 0.11 for meat, 0.12 for dairy and 0.09 for fruit and vegetables in the United States to 0.86, 0.96 and 0.71, respectively, in Tanzania (Seale et al., 2003). However, the observed movement towards more processing within primary products can help to improve returns. For example, more than 70% of export lambs were shipped as carcasses in 1985-86, but less than 5% were shipped in this form in 2003-04 (Borkin, 2006).
9. There is also some evidence of causality in the other direction: that is, that the narrowness of New Zealand's export base results in a more variable currency (Bowden and Zhu, 2006).
10. In fact, the New Zealand dollar is a liquid market, accounting for 1% of global currency turnover in 2004, most of it offshore (BIS, 2004).
11. Estimates range from 0.7% for the TWI over the medium term (Wren-Lewis, 2004), to 1.8% for the long-term USD bilateral rate (Huang, 2004). The broad thrust of the relationship holds even when a world commodity price index is used to account for the possibility that some commodity producers might be able to exercise market power (Chen and Rogoff, 2003). However, more recent work that examines the direction of causality between commodities and currencies for countries

including New Zealand found that commodity prices were more likely to be affected by currency movements than the reverse (Clements and Fry, 2006). An interesting corollary noted in this work is that the results suggest that the market power of commodity producers over price setting has been increasing over time.

12. There has also been an upsurge in farm equity withdrawal in recent years, amounting to an estimated NZD 9.8 billion between April 2002 and March 2006 (Smith, 2006). However, it is less obvious that this has been entirely, or even substantially, channelled into higher consumption.
13. In addition, capital transfers from migrants may also have contributed to a lower savings rate and the propensity to save may have fallen with the sharp reduction in both the actual unemployment rate and the NAIRU.
14. The projections also assume long-term annual net inward migration of 10 000 persons.
15. The Early Childhood Council surveyed its members who are responsible for almost 1 000 centres and care for more than 50 000 children, asking them "will your centre be opting into free ECE?". The response rate was 50.6% and it should be noted that the responses are not weighted by the number of children cared for by each provider. However, only 12% of respondents in Greater Auckland were planning to opt in ([www.ecc.org.nz](http://www.ecc.org.nz)). There are 92 000 children in the cohort of three and four year-olds.
16. The other papers are the draft New Zealand Energy Strategy to 2050, the draft New Zealand Energy Efficiency and Conservation Strategy and a discussion document on sustainable land management and climate change (all papers are available on [www.climatechange.govt.nz](http://www.climatechange.govt.nz)).

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## ANNEX 1.A1

*Progress in structural reforms*

This Annex reviews action taken on recommendations from previous *Surveys*. Recommendations that are new in this *Survey* are listed in the relevant chapter.

Recommendations	Action taken since previous <i>Survey</i> (September 2005)
<b>Labour markets and social programmes</b>	
Monitor and minimise any risks of increased rigidities arising from changes in labour legislation and avoid any measures that could increase rigidities or employment costs.	The protective provisions in the Employment Relations Act for employees affected by the sale, transfer or contracting out of businesses in specified activities have been amended so that information on transfer costs is provided.
Introduce a trial period for marginal groups of workers, during which the law for unjustified dismissal does not apply. Loosen restrictions on fixed-term contracts, especially for older workers.	No changes have occurred in unjustified dismissal provisions. Policies to increase the utilisation of existing probationary provisions have been adopted.
Provide greater encouragement and assistance to beneficiaries to shift from public income support back into paid work. Make the benefit system less passive by strengthening activation policies. Broaden and enforce the work test.	Cabinet agreed to the Working New Zealand package of reforms, including: new employment services; employment and training assistance; enhancing expectations; and enhanced services for Maori beneficiaries and young unemployment beneficiaries.
Evaluate ALMPs, the paid parental leave scheme, the cost and impact of the income-related rent programme.	The Ministry of Social Development reviewed existing employment and training programmes in 2005 as part of the Working New Zealand reforms. The parental leave scheme was evaluated in 2005/06 and a new report is expected in early 2007. Housing New Zealand Corporation is undertaking an economic analysis of housing interventions, including income-related rents.
<b>Education</b>	
Implement a nation-wide school assessment and publish indicators. Increase the supply of teachers through merit-based pay and/or by differentiating pay to reflect shortages in certain subjects. Invest additional resource in research and development on effective teaching and learning strategies in schools and diffuse best practices across classrooms.	Qualifications data (covering years 11-13) for all secondary schools is now published with comparison data for similar schools. The on-line "SchoolSmart" database gives school principals and boards detailed benchmarking information to assist their planning and reporting, although this is not publicly available. The Ministry of Education's Iterative Best Evidence Synthesis programme has been expanded and a strategy for dissemination and use is being implemented.
Reduce wasted expenditure in the tertiary sector by vigorously pruning low-priority and low-quality courses.	Funding for sub-degree level tertiary education has been capped. The funding system from 2008 will tie provider funding to negotiated plans, assessed against national strategy and priorities. Student loans and allowances are no longer available for courses that do not qualify for government funding. Quality assurance and funding checks on courses with poor completion rates and/or dubious relevance have been tightened.
Early education and care: Further reduce the cost and expand availability of high quality childcare and out-of-school-hours care. Ensure that 20 hours free early childhood education is provided to all 3 and 4 year-olds in the most cost-effective way.	Free 20 hours per week of ECE for 3-4 year olds in teacher-led services will be implemented from July 2007. Funding rates are tailored to services' costs, and were set using data on actual costs of provision. ECE participation continues to increase. Take-up of Childcare Assistance (subsidies for childcare and out-of school hours care) has expanded. The Government is developing a five-year Action Plan for Out-of-School Services.

Recommendations	Action taken since previous <i>Survey</i> (September 2005)
<b>Product market competition</b>	
Further improve the competition legislation framework.	A review of the Commerce Act is expected by September 2007. It will comprise a review of Regulatory Control Provisions (including the regime for electricity lines businesses) and a review of Authorisation and Clearance Provisions.
Remove uncertainties in the electricity sector by clarifying the situation on water property rights, the mandate of the Electricity Commission, the National Energy Strategy and climate change policy. Inject more competition into electricity markets.	The government has agreed to a staged package of actions to improve the sustainable management of rivers, lakes and groundwater. In December 2006, the government released a draft New Zealand Energy Strategy (NZES), including discussion on competition in the electricity markets. A final NZES is due to be released in mid-2007.
Assess competition in the phone mobile market and ensure that call termination charges reflect costs. Investigate the reasons for low broadband uptake.	In May 2006, a Government review concluded that limited competition was hampering broadband development. New policies include local loop unbundling, unlimited unbundled bit-stream services, and strengthened powers for the Telecommunications Commissioner. Operational separation of Telecom NZ Ltd. is also being implemented. The Commerce Commission has recommended that mobile termination charges should be regulated. A decision from the Government is pending. The Commerce Commission has commenced an investigation into the mobile phone market. It is investigating whether co-location and roaming services should be regulated.
Resume the privatisation process.	No action.
<b>Innovation and business creation</b>	
Favour collaboration between universities and private firms.	The Global Technology Partnership scheme has been launched to improve New Zealand firms' ability to access researchers worldwide to solve specific problems. The Capitalising on R&D Action Group (CRAG) has been launched to develop and oversee follow-up actions.
Foster a closer integration of education, immigration and labour market policies with innovation policies.	The government approved work on an immigration change programme, including the drafting of a new Immigration Act, reviews of migrant categories and the Immigration Agency's service model. One objective is to improve New Zealand's ability to be a competitive recruiter of talent.
Improve co-ordination among agencies responsible for the delivery of public support.	Officials will report to Ministers shortly on a framework for joint assessment of the priorities for the allocation of Foundation for Research, Science and Technology (FRST), Tertiary Education Commission (TEC), and New Zealand Trade and Enterprise (NZTE) resources to technology areas and sectors, setting out where joint working currently takes place and where opportunities exist for greater collaboration. There is now an on-going tripartite FRST/TEC/NZTE programme aimed at coordinated and seamless delivery of services to firms, and leveraging better performance from existing funding instruments.
Undertake a systematic evaluation of programmes.	A number of programme evaluations have been completed or are underway.
Monitor developments in venture capital.	The government has announced a further investment of NZD 60 million in the Venture Investment Fund.
<b>Infrastructure</b>	
Develop and implement an effective congestion charging scheme for key urban areas.	The government has completed a study on road pricing/congestion charging options for the Auckland region.
Relax the framework for road infrastructure to make it easier to construct toll roads.	No action.
<b>Taxation</b>	
Align the top personal tax rate with the corporate rate.	No action.
Consider a temporary exemption for foreign-sourced income to remove disincentives to immigration.	From April 2006, new migrants and returning New Zealanders who have not been tax-resident for at least ten years are exempted from tax for four years on foreign income.



Recommendations	Action taken since previous <i>Survey</i> (September 2005)
Consider introducing progressive taxation of employers' pension contributions, if the objective is to encourage participation of lower-income employees in employer-financed retirement savings plans.	From July 2007 the exemption on specified superannuation contribution withholding tax (SSCWT) will be extended to employer contributions to KiwiSaver and qualifying employer registered superannuation schemes. Employer contributions are exempt from SSCWT, subject to a cap.
Avoid introducing new subsidies or tax preferences and consider placing time limits on subsidies provided to the film industry.	No action.
Reduce very high EMTRs faced by some single-income households and second-income earners.	The Working for Families scheme was extended by raising the threshold at which family income assistance begins to abate and reducing the abatement rate. An additional 85 000 families benefited from this change.
<b>Public management</b>	
Undertake regular and comprehensive evaluation of baseline expenditures.	Reviews have covered capital asset management, employment relations/wage pressures, and the use of ICT. The 2007 Budget process included a specific "baseline analysis" component, where Ministers were asked to demonstrate that their baseline outlays were allocated to government priorities.
Increase incentives on public sector managers to develop relevant information systems to enhance performance.	The budget process now more clearly requires departments and Ministers to specify the particular results that they expect their budget bids to deliver. The budget system has been changed to better capture and report this information to allow monitoring and follow-up. The strategic phase of the budget has been lengthened to allow more time for Ministers to consider performance information and strategic fit when prioritising budget bids. The central agencies (Treasury, State Services Commission and Department of the Prime Minister and Cabinet) will share and collate information on performance issues of particular importance to the Government (the "Vital Few") and discuss them regularly with their Ministers.
In education, introduce a national testing system for children at the beginning and end of each year.	No action.
In health, develop output measures for a much larger share of the sector and robust price and volume measures for major classes of inputs.	The Director-General of Health's Performance Assessment and Management Group is developing indicators to better measure health sector productivity.
<b>Sustainable development</b>	
Rely on market instruments to meet greenhouse gas emission targets.	The government has published discussion documents covering land management (forestry and agriculture), stationary energy supply, and the post-2012 environment. These present options for introducing market instruments to assist in meeting greenhouse gas emission targets. Decisions are expected in the second half of 2007.
Make water discharge permits tradable within catchments. Monitor the effectiveness of voluntary agreements, and stand ready to introduce compulsory measures if needed.	Following public consultation, the government has agreed to a staged package of actions to improve the sustainable management of rivers, lakes and ground water. The Sustainable Water Programme of Action includes the establishment of a leadership group and, in partnership with local government, sector groups and the public, drafting a National Policy Statement on water as well as National Environmental Standards on methods and devices for measuring water take and use (released in December 2006) and establishing environmental flows, nutrients, microbial contaminants and sediment.
Implement the planned monitoring and evaluation of foreign aid as soon as possible, and focus aid on a core group of countries.	Between 5% and 10% of all activities undergo formal independent evaluation each year. Evaluation is generally targeted to development activities that are particularly large, focussed in an area where New Zealand wishes to see if there are lessons that can be usefully learned, or that are particularly strategic. Results of evaluations carried out over the last year are generally positive. New Zealand continues to focus its development programmes into a core group of countries. In 2007, New Zealand's bilateral ODA will go to only twenty countries.

## Chapter 2

# Public pensions and retirement savings

*New Zealand faces the challenge of an ageing population, as well as doubts about whether it can continue relying so heavily on foreigners' savings in the future. New Zealand Superannuation, the public pensions scheme, is straightforward and well-designed, but the growing share of recipients will lead to rising costs, although the New Zealand Superannuation Fund will help smooth the rise, through partial pre-funding. Future outlays could be pared back by adjusting the indexation of benefit rates and/or by raising the age of eligibility, and an automatic adjustment mechanism to share the fiscal risk associated with life-expectancy increases could also be considered. Households have accumulated relatively few financial assets and relatively few working-age adults are covered by registered superannuation schemes. KiwiSaver, starting in July 2007, is designed to encourage participation in voluntary work-place savings schemes, by automatically enrolling new employees. Employer contributions have been made tax-exempt up to capped limits. This should promote retirement savings although the housing elements of KiwiSaver may be inconsistent with households diversifying their net wealth away from housing. And all registered superannuation schemes that have lock-in of savings comparable to KiwiSaver should be treated equally for tax purposes to avoid substitution effects.*

Concerns that New Zealanders may not be taking sufficient steps to prepare financially for their retirement and doubts about whether the country can continue to rely on foreign savings to such an extent have focused attention on household savings (see Chapter 1). New Zealand's policy approach to retirement income is an unusually simple one compared with other OECD countries. It provides a universal state pension, called New Zealand Superannuation<sup>1</sup> (NZS), and leaves it up to individuals to choose whether to supplement that with an unsubsidised private pension. The approach has strengths, but it is unlike systems in most other OECD countries, which put much greater emphasis on linking retirement income to earnings during working life.

Against the background of an ageing population and the increase in costs associated with NZS, the government has already undertaken important reforms. Most notably, the age of entitlement to a public pension was raised from 60 to 65 years and the NZ Superannuation Fund was established to provide partial pre-funding of future pension costs. More recently, the KiwiSaver Act 2006 aims to create voluntary investment-based personal retirement accounts from July 2007 to encourage greater saving for retirement. Such government efforts reflect global trends in social security reform, shifting from pure pay-as-you-go to partial pre-funding and from systems with defined benefits towards those with defined contributions, with investment-based personal retirement accounts playing a larger role.

This chapter first presents an overview of the pension system in New Zealand with particular emphasis on recent measures. It then discusses some ways in which the current arrangements could affect incentives to work and save. The budgetary affordability of NZS under current parameters is then considered and the desirability of making KiwiSaver compulsory is reviewed. The chapter concludes with reform options pertaining to NZ pensions and retirement savings.

## Overview of public pensions and other retirement savings

Public pension policies are generally designed to achieve two objectives (OECD, 2005a). The first tier of pension systems redistributes income to ensure that pensioners are provided with a minimum standard of living. The second tier ensures that pensioners have adequate retirement income relative to pre-retirement earnings so as to smooth their consumption over their lifetimes. OECD countries show a range of different approaches, and, in some cases, the objectives may have become somewhat intertwined (Table 2.1).

New Zealand is one of six countries that provide only a so-called "basic" pension for the first tier of their pension systems (see Box 2.1). This distributes the same amount to each retiree (i.e. a flat rate), and entitlement is not affected by other pension income. Four countries combine basic and targeted schemes in their first tiers, and nine countries (including Australia) have targeted systems where the benefit is linked to either income or assets. Remaining countries generally provide minimum benefits or social assistance.

Table 2.1. Pension systems in OECD countries

	Pension scheme types		Eligibility age	
	First tier	Second tier	M	F
Australia	Targeted	Private DC	65	65
Austria	Targeted	Public DB	65	65
Belgium	Minimum credit	Public DB	65	65
Canada	Basic + targeted	Public DB	65	65
Czech Republic	Basic	Public DB	63	63
Denmark	Basic + targeted	Public + private DC	65	65
Finland	Targeted	Public DB	65	65
France	Targeted + minimum	Public DB + points	60	60
Germany	Social assistance	Public points	65	65
Greece	Minimum	Public DB	65	65
Hungary	. .	Public DB + private DC	62	62
Iceland	Targeted	Private DB	67	67
Ireland	Basic	. .	66	66
Italy	Social assistance	Public notional accounts	65	65
Japan	Basic	Public DB	65	65
Korea	Basic	Public DB	60	60
Luxembourg	Basic + minimum	Public DB	65	65
Mexico	Targeted	Private DC	65	60
Netherlands	Basic	Private DB	65	65
<b>New Zealand</b>	<b>Basic</b>	. .	<b>65</b>	<b>65</b>
Norway	Basic + targeted	Public points	67	67
Poland	Targeted	Public notional accounts + private DC	65	60
Portugal	Minimum	Public DB	65	65
Slovak Republic	Minimum	Public points	62	62
Spain	Minimum	Public DB	65	65
Sweden	Targeted	Public notional accounts + private DB + DC	65	65
Switzerland	Targeted	Public DB + private defined credits	65	64
Turkey	Minimum	Public DB	60	58
United Kingdom	Basic + targeted	Public DB	65	65
United States	Targeted	Public DB	67	67

1. The Swiss plans combine DB and DC schemes, where an employee and an employer are obliged to pay contributions, but the government sets the minimum rate of return that the scheme must pay and a mandatory annuity rate at which the accumulation is converted into a flow of pension payments.

Source: Whiteford, P. and E. Whitehouse (2006), "Pension Challenges and Pension Reforms in OECD countries", *Oxford Review of Economic Policy*, 22(1).

In the OECD, only New Zealand and Ireland do not provide any compulsory second-tier pension schemes. Among other countries, defined-benefit schemes are most widespread, with defined-contribution schemes still in the minority. Three countries run systems of notional accounts, in which contributions earn a notional interest rate, which is then converted to a benefit upon retirement. This method has the same incentive structure as a defined-contribution approach but without the risks to individuals associated with retirement income flows that depend on actual market returns.

In New Zealand, the first tier has historically been at the core of public pension design, leaving the second tier as a matter of individual choice and responsibility.<sup>2</sup> As a result, public pension policy had been limited to providing benefits under NZS until the advent of KiwiSaver, which aims to encourage individuals to develop long-term savings habits and accumulate financial assets.

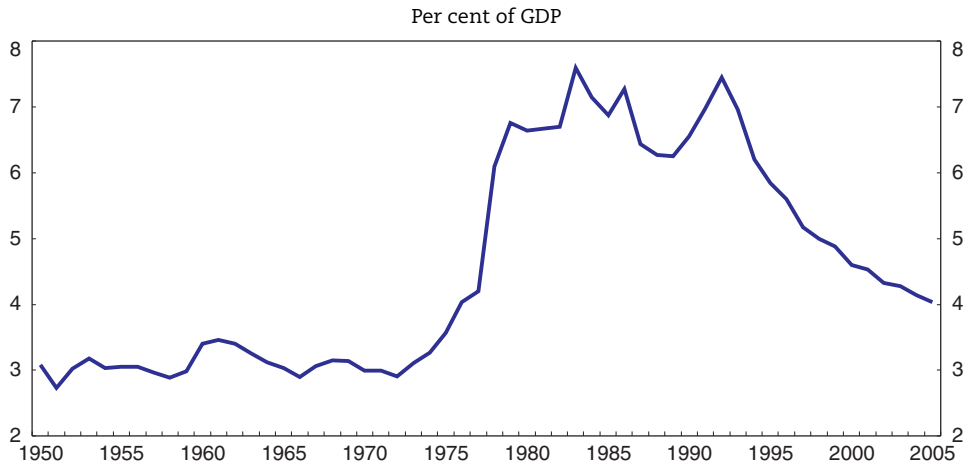
### Box 2.1. Key pension concepts

This box briefly sets out some basic concepts associated with pension schemes. Pension schemes can be classified according to their policy objective:


- The **first tier** aims to provide security against old-age poverty. Schemes are generally financed as pay-as-you-go or on a partial pre-funding basis and may be designed in a range of ways:
  - ❖ *Basic* systems pay a flat rate benefit to all elderly, irrespective of earnings history.
  - ❖ *Targeted* systems pay a higher benefit to poorer elderly than to those with other financial resources.
  - ❖ *Minimum* pension systems ensure that every person has access to a benefit at a minimum level.
- The **second tier** is constructed to smooth consumption spending over a lifetime. Second-tier schemes may be organised and managed by the government sector or by private-sector funds, and they are generally at least partly compulsory. They can be fully funded, partially pre-funded or purely pay-as-you-go. They can be designed in one of the following ways:
  - ❖ *Defined contributions*, where the pension benefits an individual receives are determined by the contributions he or she has made and returns on the investment of those contributions. Such schemes are generally designed to be actuarially fair and by definition do not redistribute income between individuals.
  - ❖ *Defined benefits*, where retirement benefits are defined by a formula (which might include pay, years of employment, age at retirement, etc.). An actuarial assessment is generally made to establish the contribution rate that is required to keep the entire plan solvent.
  - ❖ *Points* systems, where earnings-based points are used as the determinant of the pension on retirement.
  - ❖ *Notional accounts* are earnings-related plans where contributions earn a notional interest rate instead of being actually invested.
- The **third tier** is designed to provide insurance to cover individual longevity risk and is always privately funded and voluntary. However, it may receive favourable tax treatment, at least relative to other forms of savings.

### New Zealand Superannuation

The basic parameters of public pension policy in New Zealand have a long history. An income-tested old-age benefit from age 65 was first introduced in 1898, and the age of eligibility was lowered to 60 during the 1930s. A basic pension called Universal Superannuation from age 65 was added in 1940. In 1977, National Superannuation was introduced, significantly raising the benefit rate, reducing the age of eligibility for the basic pension from 65 to 60 years and discarding the income-tested element.<sup>3</sup> These changes more than doubled expenditure on public pensions as a share of GDP (Figure 2.1). During the 1990s, the age of eligibility was gradually brought back to 65, to reflect rising life expectancy and to contain the associated fiscal burdens. It is against this background that National Superannuation was replaced by New Zealand Superannuation (NZS) in 2001, and at the same time, the New Zealand Superannuation Fund (NZSF) was created in order to prepare for the future cost of NZS.

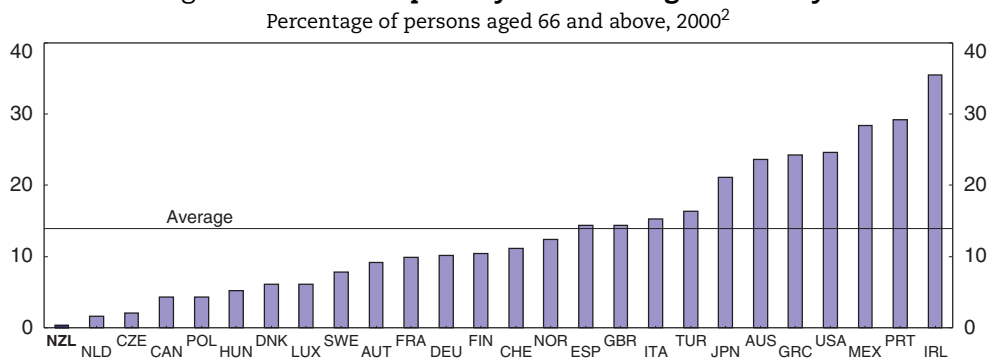
Figure 2.1. **Superannuation expenditure**

Source: Treasury (2006), New Zealand's Long-term Fiscal Position.

StatLink  <http://dx.doi.org/10.1787/007541155311>

NZS is a partially pre-funded, pay-as-you-go retirement income system with the following key features:


- **Eligibility:** Anyone aged 65 who satisfies the residency requirement is entitled to NZS.<sup>4</sup> There is no income or asset test, no contributions are required, and entitlement is not contingent upon previous employment history or retirement from employment.
- **Benefit:** The NZS benefit rate depends only on marital status and living arrangements. The net rate (i.e. after the deduction of standard tax) for a married couple is set between 65% and 72.5% of the net average ordinary-time weekly earnings (AWE).<sup>5</sup> A single person living alone receives 65% of the amount granted to a married couple, and a single person sharing accommodation receives 60%. These rates have successfully eliminated poverty in older generations (Figure 2.2), although the poverty rate among the working-age population remains close to 10% (OECD, 2005b).
- **Adjustment:** Benefit rates are adjusted annually based on *upwards* movements in the consumer price index. The adjustment is also subject to a floor, such that the benefit cannot fall below 65% of the AWE.

Figure 2.2. **Relative poverty rates among the elderly**<sup>1</sup>

1. The poverty thresholds are set at 50% of the median income for the entire population.

2. 1999 for Australia, Austria and Greece; 2001 for Germany, Luxembourg, New Zealand and Switzerland; 2002 for Czech Republic, Mexico and Turkey.

Source: Förster, M. and M. Mira d'Ercole (2005), "Income Distribution and Poverty in OECD countries in the Second Half of the 1990s", *OECD Social Employment and Migration Working Papers*, n° 22.

StatLink  <http://dx.doi.org/10.1787/007551401636>

The NZS benefit is subject to taxation. Depending on other sources of income, a higher or lower effective marginal tax rate will be levied ranging from 15% to 39% (Table 2.2). Consequently, although the pension itself is flat-rate, the net after-tax benefit received by those in the highest income bracket will be only 72% of the after-tax benefit received by those in the lowest bracket.

Table 2.2. **Personal income tax rates**

Income bracket (NZD)	Effective marginal tax rate (per cent)
0-9 500	15
9 501-38 000	21
38 001-60 000	33
60 001	39

Source: Inland Revenue Department.

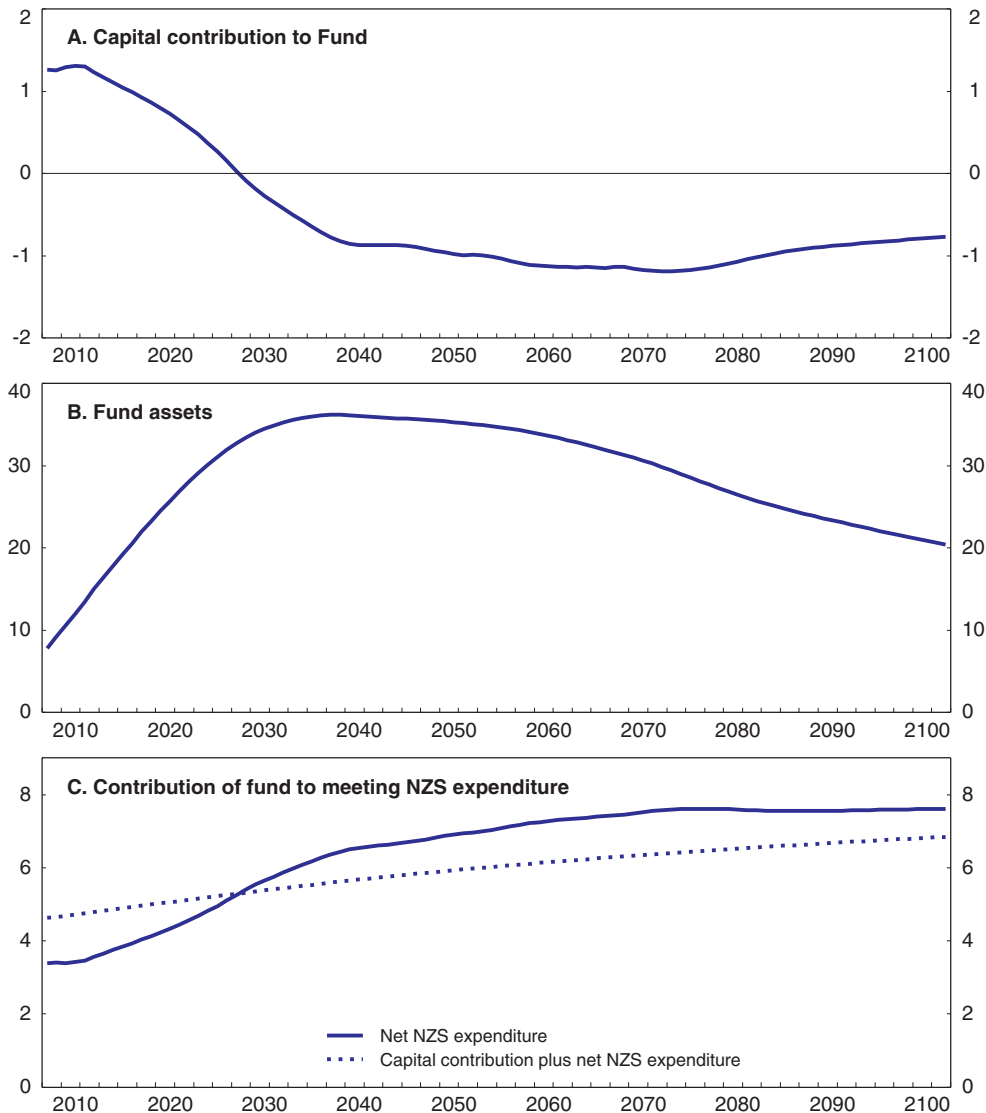
In order to cope with the fiscal burden associated with population ageing, the government established the New Zealand Superannuation Fund (NZSF). This fund provides a mechanism for the government to prepare for the future cost of NZS, which is expected to rise from 4.1% of GDP in 2006 to 8.8% of GDP by 2050 (Treasury, 2006). The effect of the NZSF is to effectively increase the cost in 2006 to 5.3% but hold the cost in 2050 to 7.6% of GDP. In short, NZS has moved from a purely pay-as-you-go system to a partially pre-funded system that smoothes taxes over time.

Capital contributions to the NZSF come out of the government's fiscal surpluses according to a funding rule. As part of each budget preparation, Treasury calculates the level of annual funding required on the basis that if the so-called "contribution rate" were to be held constant as a proportion of projected GDP, it would be sufficient to finance the expected net costs (i.e. after tax deductions on NZS) of NZS entitlements over a rolling 40-year time frame. Projected net NZS expenditure is deducted from this contribution rate to establish the capital contribution to the fund (Figure 2.3). In exceptional circumstances, the government can deviate from this "required" rate, but, if it does so, it is required to be transparent and explain the implications for future required contributions as well as how it will make up the shortfall as a part of its long-term fiscal strategy.


This formula leaves future entitlements far from fully funded. The fund is projected to keep accumulating over the next 30 years to reach an asset holding equivalent to 36% of GDP, although it starts being drawn down to cover part of future NZS payments earlier. While the bulk of future pension costs will still require funding from other government revenue (around 95% of net pension expenditures in 2030, 87% in 2040 and 86% in 2050), it is expected that around one third of the increase in projected pension liabilities will be addressed by the pre-funding strategy.

The fund's assets had already reached NZD 11.4 billion (7.2% of GDP) by December 2006. Although growing rapidly, the fund presently remains relatively small compared to the social security reserves of several other countries<sup>6</sup> (Figure 2.4). The NZSF's investment performance<sup>7</sup> has been stellar so far, achieving an average annual rate of return since inception of 15.25%, compared with a risk-free rate of 6.37% (New Zealand Superannuation Fund, 2006). This performance was much higher than some foreign counterparts. For example, the Canada Pension Plan Fund registered a five-year average rate of return of 7.0%, well below the NZSF's performance. The high rates of return reflect

Figure 2.3. **New Zealand Superannuation Fund projections**  
Per cent of GDP, year ended June



Source: New Zealand Treasury's New Zealand Superannuation Fund Model, HYEFU 2006.

StatLink  <http://dx.doi.org/10.1787/007552370824>

the NZSF's investment strategy, which is to generate higher returns than the risk-free rate. Consequently, it puts more weight on equities and equity-type instruments, which are likely to yield higher returns than fixed-income securities over the long run but also carry more risk. This stands in sharp contrast to the United States and Spain where investment is limited to fixed-income assets.

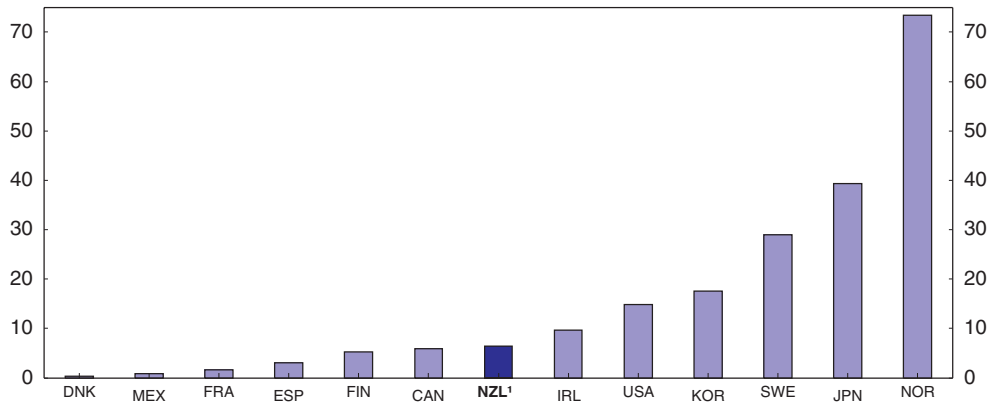
### Private pensions

The private pensions market is relatively under-developed in New Zealand, with fund assets of around 11% of GDP (Figure 2.5) and coverage of less than 15% of the labour force in occupational schemes (Government Actuary, 2006). Private pensions are voluntary arrangements, and a variety of schemes are available (Table 2.3). Employers can offer a




Figure 2.4. **Public pension reserve funds**

Per cent of GDP, 2005

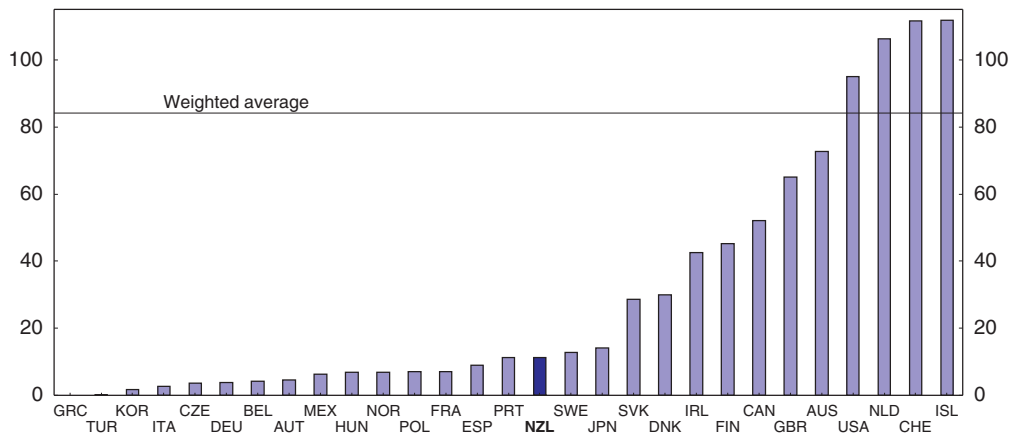


1. As at June 2006.


Source: OECD, Global Pensions Statistics database.

StatLink  <http://dx.doi.org/10.1787/007556510617>Figure 2.5. **Pension fund assets**

Per cent of GDP, 2004 or latest available year



Source: OECD, Global Pensions Statistics database.

StatLink  <http://dx.doi.org/10.1787/007558144725>

stand-alone company scheme where employers themselves are responsible for its management. Large companies have historically provided this type of pension scheme. Alternatively, they can opt for a master trust savings scheme provided by a third party who will then administer and manage the investment on behalf of employers.<sup>8</sup> In practice, most NZ-registered superannuation schemes provide lump sum benefits. In 2005, schemes paid out NZD 774 million in lump sums for retirement, death, disablement and redundancies and NZD 1 429 million in transfers out and other exits. In contrast, annual pension payments amounted to NZD 237 million (Government Actuary, 2006). In addition, the pensions paid from the closed civil service scheme, the Government Superannuation Fund, currently total NZD 453 million per year. The NZ annuity market is undeveloped, with only one provider, and industry statistics show annuity payments of NZD 26 million per year.

Participation in employer schemes (both public and private sector) has declined over the past 15 years, although membership rose in 2005, probably reflecting, in large part, the enrolments in the State Sector Retirement Savings Scheme (SSRSS)<sup>9</sup> that was introduced

Table 2.3. **Registered superannuation schemes 2005**

	Number of schemes	Assets (NZD millions)	Members
Total	590	18 195	638 123
Private <sup>1</sup>	39	32	58
By asset grouping			
Less than NZD 1 million	33	7	48
Between NZD 1 million and NZD 20 million	6	24	10
Per cent of members active			100.0
Employer <sup>2</sup>	431	11 452	304 622
By asset grouping			
Less than NZD 1 million	165	41	772
Between NZD 1 million and NZD 20 million	180	1 159	25 548
Between NZD 20 million and NZD 50 million	36	1 205	20 385
More than NZD 50 million	50	9 048	257 917
By scheme type			
Defined benefit	145	4 980	70 177
Defined contribution	286	6 472	234 445
Per cent of members active			91.4
Retail <sup>3</sup>	120	6 711	333 443
By asset grouping			
Less than NZD 1 million	29	9	895
Between NZD 1 million and NZD 20 million	53	408	33 245
Between NZD 20 million and NZD 50 million	16	547	30 319
More than NZD 50 million	22	5 747	268 984
Per cent of members active			99.3
Government Superannuation Fund <sup>4</sup>	1	3 793	67 895
Per cent of members active			21.4

1. Private schemes are set up for individuals and their immediate families.

2. Employer schemes are those sponsored by private-sector employers, public-sector employers and all National Provident Fund employer-sponsored schemes. The Government Superannuation Fund, which was closed to new members in 1992, is excluded.

3. Retail schemes are those where membership is available to the general public.

4. The Fund was estimated to have unfunded liabilities equivalent to NZD 11 438 million in June 2006.

Source: Government Actuary (2006), *Report of the Government Actuary for the year ended 30 June 2006*, Government Actuary, Wellington.

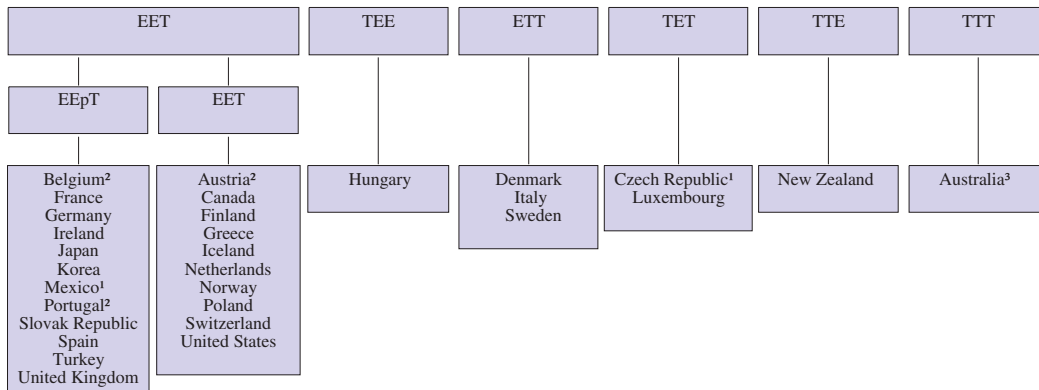
in 2004. In contrast, retail schemes have become more popular since 1990, but membership shrank in 2005. Employer schemes have also undergone considerable consolidation through the dramatic upsurge in master trusts, which offer gains in management efficiency. However, employers have not generally seen the need to offer employees a private pension scheme (ESR Consortium, 2003).

New Zealand's present tax treatment of private pensions was put in place in 1990 when the government shifted to a comprehensive income tax approach (see Chapter 4). Pension savings receive no tax advantage relative to other financial investments, and all savings vehicles are taxed at the same marginal tax rate as earned income. In contrast, virtually all other OECD countries provide a more favourable tax treatment of private pensions, in effect adopting at least a partial expenditure tax approach (Figure 2.6). Indeed, in New Zealand prior to 1990 employer and employee contributions, as well as fund earnings, were taxed at a lower rate and pensions were taxed as income, although up to 25% of capital could be taken out without tax.

Currently, contributions to private pension schemes come out of after-tax income, fund earnings are taxed at the corporate rate of 33%, and capital withdrawal from the fund is exempt from tax. In addition, employer contributions to pension schemes are taxed at

Figure 2.6. Tax treatment of private pensions

2004



Note: E = exempt; pT = partially taxed, only in the EET system; T = taxed. The sequence of letters represents the tax treatment of contributions to pension schemes, of investment income earned on pension assets, and of pensions when paid out.

1. Mexico and the Czech Republic provide a state subsidy to contributions.
2. The employee's contributions are partially exempt or receive tax credits in Austria, Belgium and Portugal.
3. Australia has subsequently passed legislation to remove taxes on private pensions payouts.

Source: Yoo, K.-Y. and A. de Serres (2004), "Tax Treatment of Private Pension Savings in OECD Countries," *OECD Economic Studies*, No. 39/2, OECD, Paris.

33% via the Specified Superannuation Contribution Withholding Tax (SSCWT). But this creates a distortion. Earners facing a marginal tax rate of 39% could exploit a significant tax advantage by making a "salary sacrifice", negotiating an increase in their employer's pension contributions taxed at 33%, in exchange for a wage reduction by the same amount. To reduce tax avoidance, a 5% Fund Withdrawal Tax (FWT) is now applied to early withdrawal from the superannuation fund.<sup>10</sup> In addition, until recently the tax rules effectively over-taxed low- and middle-income employees, making it less attractive for them to join employer superannuation schemes.<sup>11</sup>

Late in 2006 the government announced that it would make employer contributions to all registered superannuation schemes tax free for amounts up to 4% of an employee's gross salary (or the equivalent of the employee's contribution if that is a lower amount) from July 2007. However, qualifying schemes must have lock-in rules to prevent abuse. This move minimises the distortions noted above and, more importantly, provides a stronger tax incentive for people to save through employer-based superannuation schemes. However, it is difficult to assess whether this will lead to a switch from retail schemes and other financial instruments to occupational pensions. International experience suggests that where some savings vehicles are tax-advantaged relative to others, the substitution effects can be significant, and evidence to show that such preferential treatment raises overall savings is difficult to find (Börsch-Supan, 2005; Attanasio *et al.*, 2005).

Saving through pension funds has generally incurred a particular tax penalty because they are particularly exposed to capital gains tax<sup>12</sup> (see Chapter 4). This has made it less likely for employees to join pension schemes that may be subject to capital gains tax and has generated a bias towards investment in other types of assets, including housing, which are not subject to capital gains tax. However, legislation passed in December 2006 eliminated capital gains on shares in NZ and Australian companies held by portfolio

investment entities, including registered superannuation schemes, effectively going a long way towards resolving this issue.

### **KiwiSaver**

The KiwiSaver scheme is designed to address government concerns that New Zealanders are not saving enough for their retirement through current private arrangements. The KiwiSaver Act 2006 allows for the creation of investment-based personal retirement accounts for employees, starting on 1 July 2007. In brief, it has the following features:

- It is a defined-contribution approach where employees' contributions can be deducted from gross wages at a rate of either 4% or 8% and invested in financial assets. Participants will be entitled to choose between approved schemes with different risk profiles, and savings will be generally locked in until the age of 65 when participants become eligible for NZS.
- The approved schemes will be run by the private sector and need to be registered and regulated in the same manner as other private superannuation schemes. But there are no government guarantees on financial returns. Six default providers have been chosen, and those people who join KiwiSaver without nominating a preferred savings scheme will be automatically allocated to one of these default providers.
- Participation is not compulsory. Nonetheless, employees starting a new job are enrolled automatically with the right to opt out during the first eight weeks with their new employer. Automatic enrolment is expected to raise the probability that employees participate compared with an opt-in approach, in line with findings from behavioural economics,<sup>13</sup> and thereby encourage more saving in aggregate. Existing workers can opt in, as can the self-employed and those not currently in work.
- The government will provide a "kick-start" in the form of a NZD 1 000 lump-sum contribution to each participant's account. It will also pay part of the management fees (a flat dollar amount per scheme member) and provide tax exemptions for employers' contributions. The tax exemption for employer contributions will be extended to registered superannuation schemes that have lock-in provisions similar to KiwiSaver. in line with those for registered superannuation schemes.
- After the first 12 months, contribution holidays can be taken for periods of up to five years, and renewable on application. And up to half of employee contributions can be diverted to mortgage repayment as long as the chosen KiwiSaver scheme provides this option. But employer contributions cannot be diverted.
- Members who have contributed to KiwiSaver for at least three years will be entitled to withdraw their savings to purchase a first home. They may also receive a home ownership deposit subsidy of NZD 1 000 per year of savings up to a maximum of NZD 5 000 per person. This will be subject to eligibility criteria that will include income and house price caps.

KiwiSaver shares some characteristics with systems in several other countries – those already in place in Australia, Sweden and the United States, and the National Pensions Savings Scheme (NPSS) currently under consideration in the United Kingdom (Table 2.4). But it has some distinctive features. *First*, only KiwiSaver (and the proposed NPSS in the United Kingdom) is designed to be run as a national automatic-enrolment-with-opt-out scheme. *Second*, KiwiSaver is the only scheme that will explicitly subsidise home

Table 2.4. **Defined-contribution schemes across countries**

	Starting year	Target population	Nature of compulsion	Number of members	Minimum contribution	Benefit restriction
New Zealand KiwiSaver	2007	All employees and self-employed	Automatic enrolment with the right to opt out	680 000 after 7 years	4% of gross salary/wages	Withdrawal available after age 65 as a lump sum or annuity. Withdrawal also possible after 3 years for first-home buyers
Australia Superannuation Guarantee	1992	All employees and self-employed	Employer contributions compulsory	9 million in 2005	9% of gross earnings	Withdrawal available after age 60 as a lump sum, annuity or mixture
UK National Pensions Savings Scheme (proposal)	2010	All employees from age 21 with earnings threshold	Automatic enrolment with right to opt out. Employer contributions compulsory	7 million	5% of gross earnings by employees and 3% by employers	Withdrawal as annuity or equivalent drawdown between 55 and 75
US Thrift Savings Plan	1987	All federal employees	Automatic enrolment, contribution voluntary	3.5 million in 2004	None	Withdrawal upon retirement as annuity, partial withdrawal or transfer
US 401k	1981	All employees and self-employed	Automatic enrolment permissible subject to employer criteria	45 million in 2001	None	Withdrawal available after age 59.5 (maximum age 70.5). Loan provisions from 401k accounts available
Sweden Premium Pension	1998	All employees and self-employed	Employer and employee contributions compulsory	5.3 million	2.5% of gross earnings split between employee and employer	Withdrawal as annuity between age 61 and 67

Source: Pensions Policy Institute (2006), *NPSS Policy and Design Choices*, [www.pensionspolicyinstitute.org.uk](http://www.pensionspolicyinstitute.org.uk).

ownership.<sup>14</sup> And, as it stands, the scheme does not rule out members making a withdrawal to purchase their first home, thereby benefiting from the home ownership subsidy, and then going on a perpetual contribution holiday and leaving inactive KiwiSaver accounts behind.

### **Housing as a “retirement savings” substitute**

Household wealth in New Zealand is largely held in the form of housing rather than financial assets (Table 2.5). This stands in contrast to most other OECD countries where the share of financial assets in household wealth is larger (Figure 2.7). There are various explanations typically put forward as to why New Zealanders have such a strong predilection for housing. As in most OECD countries, the tax system favours owner-occupied housing investment relative to investment in financial assets. For owner-occupied dwellings, imputed rents are not taxed, but, unlike most OECD countries, mortgage interest is not deductible either. Capital gains are typically not taxed either for housing investment or financial assets, though many pension schemes have been paying capital gains tax under provisions that are repealed with effect from 1 October 2007. Owners of rental accommodation can deduct mortgage interest, depreciation and expenses pertaining to repairs and maintenance from income from all sources but rental accommodation is generally except from capital gains taxation, in contrast to most OECD countries. However, investors in shares can also leverage share investments, deduct losses against other income and not pay capital gains tax on sale and thus, the tax

Table 2.5. **Assets held by the household sector**

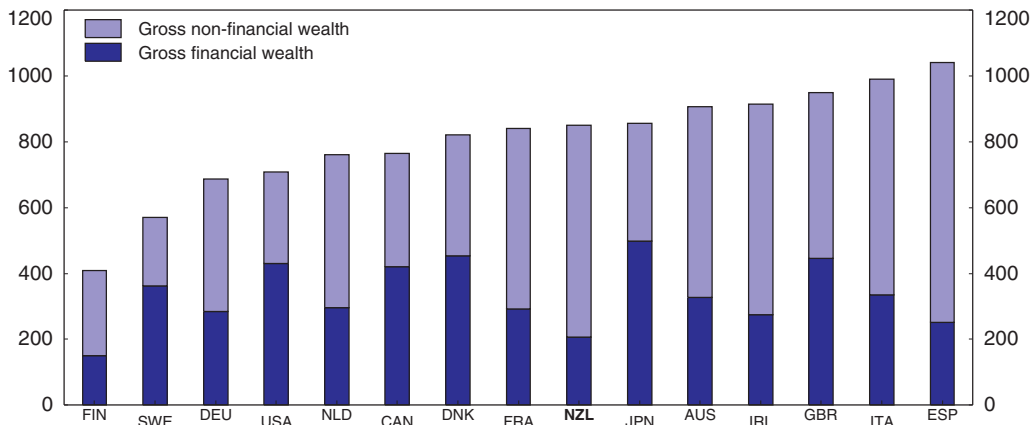
Billion NZD			
	1990	2000	2005
Deposits	30 (63)	45 (64)	72 (81)
Life, superannuation and managed funds	26 (54)	57 (81)	57 (64)
Housing stock	127 (265)	231 (330)	506 (568)
Other	16 (33)	24 (34)	33 (37)
Total assets	199 (415)	357 (510)	668 (751)

Note: Figures in parentheses indicate a percentage of personal disposable income.


Source: Reserve Bank of New Zealand statistics database [www.rbnz.govt.nz](http://www.rbnz.govt.nz).

Figure 2.7. **Household wealth composition**

Per cent of disposable income, 2005



Source: OECD Economic Outlook 80.

StatLink  <http://dx.doi.org/10.1787/007558685705>

treatment is consistent across asset types. But although retail products offering share leverage exist, the practice is not nearly as common as in housing. These tax treatments, particularly the treatment of pension schemes, and the greater ability to leverage housing investment create an effective bias towards housing investment compared to private pensions and other savings vehicles. It remains to be seen whether the removal of the pension disincentive will have a significant impact on the accumulation of housing assets. Indeed, 15% of households own at least one investment property (i.e. a non-owner occupied dwelling) although only 8% of households are currently renting out properties (Scobie *et al.*, 2006). The share of households owning rental dwellings rises to 18.5% for those in the highest income quintile.

While such a distortion in the tax system is widely acknowledged, there has been little attempt to address it. Indeed, the tax review conducted by the McLeod Committee in 2001 identified the non-taxation of residential housing as well as the absence of a comprehensive tax on capital gains as two important areas where there remain significant gaps in New Zealand's tax base (see also OECD, 2000). In OECD countries, housing is generally not subject to tax on either imputed rentals or on capital gains, but the bias

relative to other saving instruments is generally minimised by the E/E/T tax treatment of households' financial assets, especially private pensions (Yoo and de Serres, 2004). The McLeod Committee proposed the risk-free return method<sup>15</sup> (RFRM) as an alternative approach to removing the incentive for housing investment at the expense of other investment and to treating owner-occupiers and rental-housing occupiers equally.

The McLeod Committee's proposal, nevertheless, received little support, and in its final report, the Committee recommended that the government not adopt the RFRM. Since then, the discussion on housing taxation has been muted. Indeed, the Periodic Report Group – an independent statutory group that reviews pension policies every six years – concluded there was “no value in addressing the anomaly” (Periodic Report Group, 2003). However, it acknowledged that the tax treatment of owner-occupied housing creates a distortion, because many New Zealanders are dependent on housing investment as a way of ensuring a reasonable living standard after retirement.

## Incentives to work and save under present arrangements

Incentives generated by the whole set of pension policies are multi-faceted. The challenge is to design the overall structure of pensions so that it is more likely to encourage people to save and to work while minimising the distortions created by any adverse incentives. If pension policies are carefully set so as to foster work and private saving, they will, *ceteris paribus*, contribute to higher national savings, thereby promoting higher national incomes (see Chapter 1). The key challenge for the government is therefore to establish pension policies that not only serve their primary objectives of redistributing income and smoothing consumption but also promote higher living standards overall.

### Incentives to save

The incentives to save are typically analysed in the following simple inter-temporal framework. If a person aims to smooth consumption over the life cycle, then the optimal level of savings will be that which generates enough income after retirement to maintain the pre-retirement consumption path. Alternatively, some people may prefer to accept lower income and consumption in retirement than during their working lives and thus need to save less. Assuming people behave rationally, then the current savings rate already reflects household choices about the extent to which they want to smooth consumption. Under such circumstances, the introduction of new pension instruments – be it KiwiSaver or other products – will not change the overall level of savings, because they will only “crowd out” existing pension schemes. In contrast, people may be myopic about saving for their future or have unrealistic expectations about the level of future consumption that their expected retirement income can finance. In this case, new or more attractive pension schemes can complement existing savings vehicles and raise the level of overall saving. Financial education can also raise the awareness of the need to save more, and participation in occupational schemes can lead to higher savings in other forms as well (Bernheim and Garrett, 2003).

In assessing the incentives to save for retirement in New Zealand, the following analysis highlights its three important features: the relatively higher level of New Zealand Superannuation compared to first-tier benefits available in other countries; the low replacement rates for those on middle incomes or higher; and the predilection for housing. While these features may not be exhaustive, the analysis will aim to clarify how they

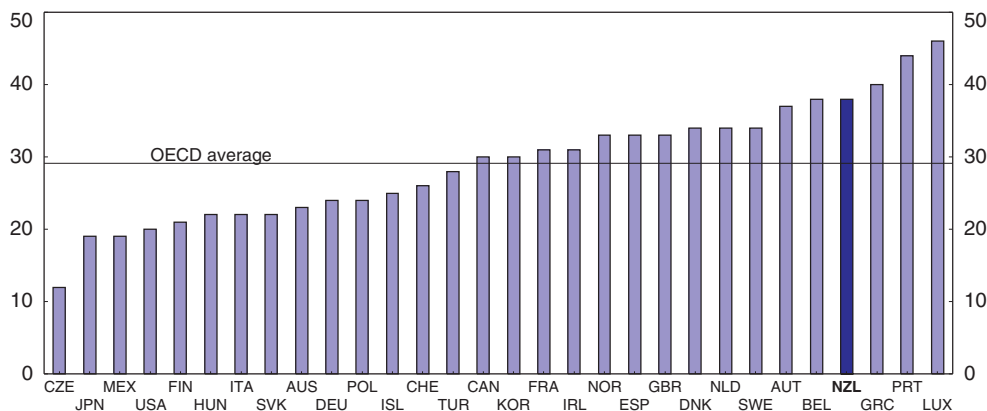


interact with the incentive to save, referring to the recent empirical evidence from the Household Savings Survey.


### Generosity of New Zealand Superannuation

As explained at the outset, NZS forms the basis of the pension system in New Zealand. The objectives of NZS, set out by the Royal Commission on Social Policy in 1988, are to ensure a minimum standard of living for pensioners and enable the elderly to participate in their community, but the benefit provided by NZS is relatively high compared to the first-tier pensions in other countries (Figure 2.8). The estimated average minimum retirement benefit that New Zealanders receive from the first-tier pension is 38% of average earnings (OECD, 2005d). This is well above the OECD average (29%) and exceeded only by Luxembourg, Portugal and Greece, although nearly all other countries also have compulsory second-tier systems for workers: these are taken into account in comparisons of overall net replacement rates for mandatory pension schemes (Figure 2.9).

Figure 2.8. **Average minimum retirement benefit<sup>1</sup>**  
Per cent of average earnings



1. Parameters are based on 2002 values but include all legislated changes even when these take effect in the future. Source: OECD (2005), *Pensions at a Glance*, OECD, Paris.

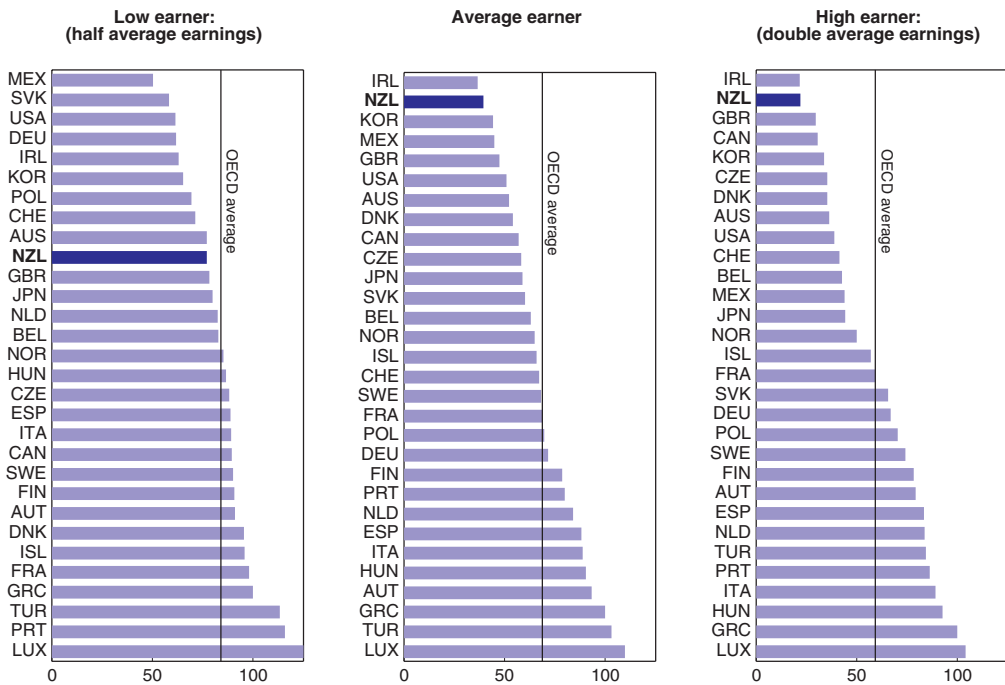
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Nonetheless, low-income New Zealanders will be provided with a level of retirement income that represents a reasonably high net replacement rate. Even pensioners whose earnings histories are virtually non-existent are still entitled to receive the same benefits, which stand at more than 70% of low-income employees' average earnings. For most New Zealanders whose income falls in the lowest 40% of the income distribution, additional saving for retirement would not be a rational strategy, because NZS already provides sufficient retirement income to allow them to maintain their previous consumption patterns (Scobie et al., 2004). Even for those on higher incomes, NZS reduces the incentive to save, since it provides everyone with a basic level of retirement income (although this may fall considerably short of that needed to maintain previous consumption patterns). Indeed, European experience suggests a strong negative correlation between the generosity of first-pillar schemes and the importance of private pensions (Börsch-Supan, 2005). Thus, NZS acts as a substitute for private savings in smoothing individuals' consumption.




Figure 2.9. **Net replacement rates at different earnings levels<sup>1</sup>**

Per cent of individual pre-retirement net earnings, 2002



1. Mandatory pension programmes for men.

Source: OECD (2005), *Pensions at a Glance*, OECD, Paris.StatLink  <http://dx.doi.org/10.1787/007633147438>

### Low replacement rates for higher-income groups

Many average and high earners are nevertheless headed towards a significantly lower income in retirement and are able to consume considerably less in retirement than they could during their working lives. For these people, NZS provides low net replacement rates, well below the OECD average. At the same time, only around 15% of the employed labour force participate in private occupational pension schemes, and there is no information on the extent to which their assets would be sufficient to ensure adequate consumption smoothing even for these participants. However, people participating in occupational pension schemes – presumably those on middle or high incomes, by and large – do have a significantly higher level of total net worth relative to income (Scobie *et al.*, 2005). Although this is only a correlation and may reflect some self-selection bias, it does suggest that they have chosen to join occupational schemes without necessarily compromising other types of savings. In any case, to the extent that KiwiSaver encouraged non-savers to start accumulating financial assets, savings would increase at an aggregate level.

### Predilection for housing

New Zealanders appear to have a strong desire to accumulate housing assets, although it is difficult to identify to what extent this reflects the tax biases discussed above versus underlying preferences (RBNZ, 2006). It is clear that for any given net pension income, effective disposable income will be higher for those who have paid back their mortgages than for those who have debts to service or pay rent. From that point of view, home ownership can, in itself, improve consumption smoothing over the life-cycle by

allowing people to reduce retirement outgoings by paying off the mortgage before retirement. Another motivation may be the scope for partial or total liquidation of housing assets during retirement to convert them into a stream of income. This could be achieved through sale of rental or other investment properties to realise capital gains, down-sizing to a smaller property, or through equity-release instruments such as reverse mortgages. However, demographic patterns may make these strategies more risky than the general public realises; if the share of the population reaching retirement increases and there is a corresponding upsurge in efforts to realise capital gains, this would put downward pressure on house prices, thereby cancelling out some, or conceivably even all expected capital gains (Bollard *et al.*, 2006).

Furthermore, the housing-related provisions of KiwiSaver may undermine the impact of the scheme on the allocation of households' net wealth towards financial assets. Allowing households to use "mortgage diversion" of employee contributions undermines the portfolio diversification process, although in practice the attractiveness of "mortgage diversion" may be limited because employer contributions are only tax-exempt if matched by non-diverted employee contributions. In contrast, the one-time capital withdrawal and sweeteners designed to help first home buyers (see above) risk being simply capitalised in entry-level house prices. However, the one-time capital withdrawal may have an important behavioural feature: it may encourage those who are unsure about whether they might want to buy a home at some point to remain in the scheme, knowing that they will not be foreclosing their options. Likewise, under KiwiSaver those that purchase a home will have a natural path back to saving once they have paid off their mortgages. As a result, the impact of the one-time withdrawal is ambiguous. The housing-related sweeteners do not generate such potential benefits. Overall, KiwiSaver may help to boost total household net wealth, but its impact on financial asset accumulation and the predominance of housing in portfolios is somewhat blunted by these pro-housing measures.

### **Incentives to work**

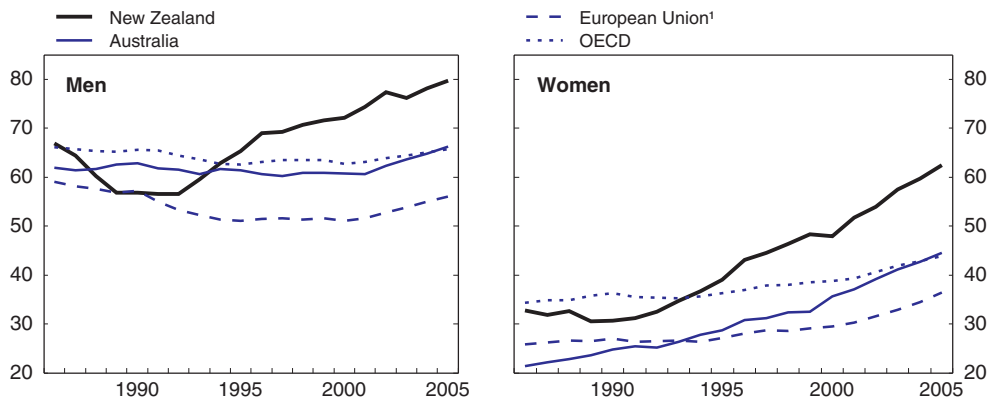
While the decision when to retire is influenced by a number of factors, the availability of a pension undoubtedly plays an important role. Indeed, at one extreme, if there were no public pension at all, then retirement income would depend on inheritances, transfers from family members or savings accumulated during one's working life, providing a very direct incentive to work. If the pension benefit is linked to the length of employment, as happens for public pensions in a number of OECD countries, this can encourage work attachment at the margin. In contrast, if the scheme provides generous benefits irrespective of the employment record, it may tilt employees' preferences towards retirement relative to work through an "income" effect. This can affect the intensity of work (hours and level of responsibility) and/or the timing of labour-force withdrawal. And the incentive to work may be weakened if income or asset tests are applied, so that higher earnings during working life incur a direct penalty in retirement income. However, a pension that is decoupled from employment avoids a "substitution" effect of leisure for work, which has been found in a number of OECD countries where there is an implicit tax on continuing to work after a certain age (OECD, 2005b).

Overall, NZS provides an "income" effect by reducing the lifetime hours of work required to attain a target level of retirement income, but it does not involve any substitution effect between work and retirement. First, there is no means (or asset) test and pension eligibility is completely decoupled from earnings history. NZS also imposes no

retirement requirement: there is no disincentive to continuing to work after reaching age 65, except to the extent that people find themselves earning above the income level where the marginal effective tax rate reduces the net after-tax pension (see above). Separation of pension eligibility from retirement can provide, on the one hand, an incentive to retire for those whose replacement rates are high. On the other hand, it can also provide an incentive to continue working for those who have a low opportunity cost of leisure or whose replacement rates are relatively low, if they have no private retirement savings. Flexibility in retirement decisions is an important factor that makes the NZ labour market less distorted by the public pension system than those in many other OECD countries, especially as New Zealand has also avoided the trap of early retirement provisions that have undermined labour force participation among older workers elsewhere (OECD, 2005b).


However, the age of entitlement for NZS does impact on incentives to work. The age of eligibility for superannuation was raised gradually from 60 to 65 years between 1992 and 2001. This is one factor explaining the reversal in the previously falling labour force participation rate of workers aged 55-64 since 1991 (Hurnard, 2005), in contrast to patterns observed in other countries (Figure 2.10). Indeed, participation has continued to increase for those aged 65 and older, indicating that other factors also influence retirement decisions. Private pensions can also play a role in influencing the retirement decision. Ironically, their relatively low coverage to date in New Zealand and the preponderance of defined-contribution schemes (including KiwiSaver) mean that New Zealand has avoided some of the negative labour-market impacts of occupational pensions, in particular, that other countries have experienced (see, for example, OECD, 2004).

Figure 2.10. **Labour force participation rates of older workers**  
55-64 years old, per cent



1. 19 OECD countries.

Source: OECD Labour Force Statistics database.

StatLink  <http://dx.doi.org/10.1787/007647720560>

KiwiSaver has been carefully designed to have minimal impact on incentives to work, although the tax exemption for employer contributions might arguably provide a marginal positive incentive. However, it has been largely marketed as a workplace-based savings scheme, thereby drawing out the link between work, saving and future retirement income, even though it also caters for those not in work who wish to participate. It remains to be seen whether emphasising this relationship makes some psychological difference, at the

margin, in the degree of attachment to the workforce of some groups, such as potential second-earners with family care responsibilities. It is possible that accumulation of financial assets through KiwiSaver might allow some people to withdraw from the workforce earlier than they might otherwise have done, once they have acquired their target wealth (i.e. an income effect). But it seems reasonable to assume that those likely to want to do this are already significant savers.

### Is New Zealand Superannuation affordable?

Demographic pressures will lead to considerable increases in age-related public expenditures as a share of GDP (see Chapter 1). This will pose a significant challenge to the government to ensure that fiscal position remains sound in the very long run. Affordability of NZS depends on other choices about government revenues and expenditure. On present policy settings, government expenditures are expected to exceed revenues from around 2030 onwards and public debt would begin to rise as a share of GDP. Thus, putting government finances on a sustainable track will require either lower expenditure or higher revenues (Treasury, 2006). Trimming back NZS would be one option to consider as part of the strategy for putting the long term fiscal position back on a stable track.

The creation of the New Zealand Superannuation Fund enabled a move from a strictly pay-as-you-go system to a partially pre-funded system; nonetheless, there remains uncertainty as to how much the fund will ease the pressure stemming from rising pension liabilities. Most crucially, it relies on an assumed rate of return equivalent to 8.65% (expected annual pre-tax nominal return excluding management fees). So far, the fund has been able to outperform this assumed rate. In setting the contribution rate, it also uses a rolling time horizon of 40 years for balancing the financing gap, beyond which the financial shortfalls in the system are not be taken into account.<sup>16</sup>

More fundamentally, however, the partially-funded system can alleviate but not solve the underlying budgetary implications of a pay-as-you-go system in a country experiencing an ageing population. Other countries have typically examined two major areas where reform can be pursued. The first option is to establish investment-based personal retirement accounts and reduce reliance on pay-as-you-go components. This not only encourages individuals to accumulate their own pension assets but also insulates the government from pressure to augment the level of benefits. New Zealand has already taken steps in this area by proposing the introduction of KiwiSaver from 2007, but so far, without any intention to scale back NZS. The second option is to restrain the growth of pension benefits that future cohorts will receive. This can be done by adjusting the indexation rules and/or by raising the age of pension entitlement.

#### *Indexation to prices*

One reform strategy that could be considered is to change the indexation regime of superannuation payments. Indeed, a variety of indexation approaches are used across OECD countries (Table 2.6). The effects on projected NZS expenditures of different indexation rules – wage inflation, CPI inflation or CPI inflation plus 1% – are considerable (Figure 2.11). In the NZ context, shifting to price indexation (by removing the wage floor) would be one way of gently scaling back the overall cost of NZS. Indeed, this basic universal pension approach avoids one of the largest obstacles to price indexation, which is that older pensioners can end up receiving considerably smaller pensions than their younger counterparts. But a shift to an index formula that increased NZS payments more slowly

**Table 2.6. Indexation of pension benefits in OECD countries**  
Percentage of total adjustment linked to prices or earnings

Scheme		Prices	Earnings	Scheme		Prices	Earnings
Australia	Targeted	–	100	Japan	Basic	100	–
	Defined contribution	(Individual choice)			Earnings-related	100	–
Austria	Earnings-related	(Discretionary)		Korea	Earnings-related	100	–
Belgium	Social assistance	100	–	Luxembourg	Social assistance	(Discretionary)	
	Minimum pension <sup>1</sup>	100	–		Basic <sup>7</sup>	–	100
	Earnings-related <sup>1</sup>	100	–		Minimum	–	100
Canada	Targeted	100	–		Earnings-related	–	100
	Basic	100	–	Mexico	Minimum <sup>8</sup>	100	–
	Earnings-related	100	–		Defined contribution	100	–
Czech Republic	Basic	67	33	Netherlands	Basic <sup>9</sup>	–	100
	Earnings-related	67	33		Occupational <sup>10</sup>	–	100
	Minimum	100	–	<b>New Zealand</b>	<b>Basic<sup>11</sup></b>	–	<b>100</b>
Denmark	Targeted	–	100	Norway	Targeted	–	100
	Basic	–	100		Basic	–	100
	ATP	(Discretionary)			Earnings-related	–	100
	Defined contribution	(Periodic bonuses)		Poland	Targeted	80	20
Finland	Basic	100	–		Defined contribution	100	–
	Earnings-related	80	20	Portugal	Targeted <sup>12</sup>	–	–
France	Targeted	–	100		Minimum <sup>13</sup>	–	100
	Minimum	100	–		Earnings-related	100	–
	Earnings-related	100	–	Slovak Republic	Earnings-related	50	50
	Occupational <sup>2</sup>	100	–	Spain	Earnings-related	100	–
Germany	Social assistance	(Discretionary)		Sweden	Targeted	100	–
	Earnings-related <sup>3</sup>	–	100		Earnings-related <sup>14</sup>	–	–
Greece	Minimum	(Discretionary)			Occupational	(Discretionary)	
	Targeted	(Discretionary)		Switzerland	Targeted	50	50
	Earnings-related	(Discretionary)			Earnings-related	50	50
Hungary	Minimum	50	50		Occupational	(Discretionary)	
	Earnings-related	50	50	Turkey	Targeted	100	–
	Defined contribution	50	50		Earnings-related	100	–
Iceland	Targeted <sup>4</sup>	–	100	United Kingdom	Targeted <sup>15</sup>	–	–
	Occupational <sup>5</sup>	100	–		Basic	100	–
Ireland	Targeted	–	100		Earnings-related	100	–
	Basic pension	–	100	United States	Targeted	100	–
Italy	Social assistance	(Discretionary)			Earnings-related	100	–
	Earnings-related <sup>6</sup>	75-100	–				

1. Price index excludes alcohol, cigarettes and fuel: increases only if inflation exceeds 2%.

2. No automatic procedure, but recent practice.

3. Wages net of pension contributions.

4. In line with public-sector pay.

5. Minimum legal up-rating.

6. Increased between 75% and 100% price indexation depending on pension level.

7. At least prices with extra increase related to earnings growth.

8. Equal to real value of minimum wage for 1997.

9. Net minimum wage.

10. No legal requirement but customary.

11. Because indexing of NZS is based on net benefits relative to net average wages, actual indexing on a gross wage basis is less than 100% on average.

12. Discretionary increases; recently above prices.

13. Minimum wage net of contributions.

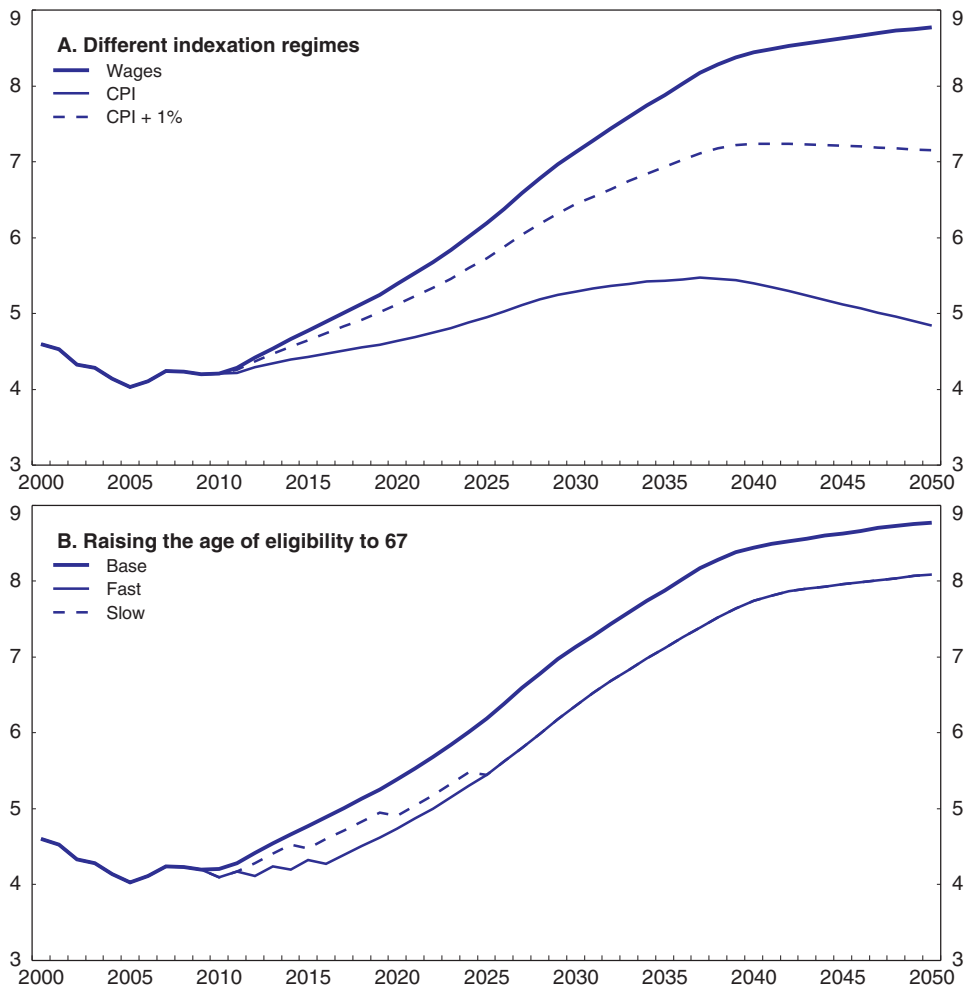
14. Gross earnings less “growth norm” of 1.6%.

15. Prices or more; up to wages if possible given fiscal situation.


Source: OECD (2005), *Pensions at a Glance*, OECD, Paris.

Figure 2.11. **Path of New Zealand Superannuation payments**

Per cent of GDP



Source: Treasury (2006), *New Zealand's Long-term Fiscal Position*, Treasury, Wellington.

StatLink  <http://dx.doi.org/10.1787/007683607072>

than wages could result in increased poverty among the elderly (measured relative to median incomes<sup>17</sup>) if lower-income individuals did not increase their private savings to compensate. Thus, there would almost certainly be a political limit to the extent to which increases in NZS pension benefits could fall behind wage growth.

### **Raising the pension entitlement age**

Another possible reform strategy is to raise the age of pension eligibility. New Zealand already lifted the age of eligibility from 60 to 65 during the 1990s to reduce overall superannuation costs, but it could increase the age even further to match other countries such as Germany, Iceland, Norway, and the United States where the eligibility is already at, or moving towards, 67 years. Lifting the eligibility age to 67 years would reduce projected NZS spending relative to baseline by an estimated 0.7 percentage point of GDP in 2050.

Raising the age for pension entitlement by two years has a less significant impact than changing the indexation regime, but both options would help alleviate the increase in the fiscal burden in the future. Whether these options are desirable depends in part on the

trade-off. On the one hand, lower spending on NZS would help ensure long-term fiscal sustainability without recourse to large increases in taxes or such large expenditure reductions in other areas. However, such a reform strategy would need to be pursued in the context of how best to achieve the primary objectives of NZS – ensuring that New Zealanders not only avoid poverty after retirement but are able to take part in society – while taking account of distortions created by the level of benefits and by the taxes levied to pay for them.

### **Indexation to life-expectancy risk**

Another factor that could make a significant difference to the affordability of NZS is the evolution of life expectancy. The demographic projections used for modelling the long-term fiscal position assume that life expectancy will rise to 85.2 years in 2050 (see Chapter 1). But if people were to live an extra 2.2 years on average by 2050, this is estimated

#### **Box 2.2. Life-expectancy risk in public pensions systems**

Life-expectancy risk is a risk associated with uncertainty about expected increases in the projected length of life in a generation as a whole. It is distinct from longevity risk, which stems from a mismatch at the individual level between remaining years of life and risk of individuals outliving their retirement capital. In general, the former risk is borne by pension providers (*i.e.* the government in public schemes), whereas the latter risk is attributed to individuals.

Traditionally, life-expectancy risk has been entirely borne by pension providers (*i.e.* the government in public schemes) but several governments have redesigned pension systems in ways that shift at least some of the life expectancy risk onto individuals approaching retirement. One argument for expecting this cohort to bear some of the risk is that it is the very generation that will gain the additional benefits if life expectancy increases.

There are four broad approaches to allowing the pension entitlement to adjust automatically with changes in life expectancy:

- *Defined-contribution pensions*: Under these schemes, adjustments to life expectancy are built into the actuarial conversion of defined contributions into a benefits stream: higher cohort life expectancy will be automatically translated into lower benefits. This is the case in Australia, Hungary, Mexico, Poland, the Slovak Republic and Sweden.
- *Notional accounts*: These schemes automatically incorporate the life-expectancy adjustment in the same way as for defined-contribution schemes. These apply in Sweden, Italy and Poland.
- *Adjusting benefit levels*: Under defined-benefit schemes the level of pension benefits can be linked to life expectancy. This is done directly in Finland. Similarly, under the German points system, financial sustainability is measured by the ratio of pensioners to contributors; hence, a larger number of pensioners as a result of longer life expectancy will reduce pension benefits. Portugal is also considering reform proposals that would adjust benefits.
- *Adjusting qualification requirements*: Under defined-benefit schemes, conditions such as the age of pension eligibility and the years of contributions required for full benefits can be linked to life expectancy. In Denmark, measures to link the age of eligibility to life expectancy will be introduced. In France, the number of contribution years required to obtain full pension benefits are directly linked to life expectancy.

The majority of countries, including New Zealand, have not shifted any of the life-expectancy risk onto individuals, leaving it to be borne entirely by the government. It is worth noting that *ad hoc* adjustments to the age of entitlement can mitigate the effects of increases in life expectancy without transferring any of the risk to individuals. In the absence of an automatic adjustment mechanism, all the life-expectancy risk around the higher age of entitlement would still remain with the government provider.

Source: Whitehouse, 2007.



to incur an additional 0.5% of GDP expenditure on NZS. The overall impact on net debt is even higher at 12 percentage points of GDP because of other age-related expenditure and debt dynamics. Thus, providing an automatic adjustment mechanism to link pension entitlement to this demographic risk would help to attenuate the fiscal pressures. However, as noted above, such a strategy needs to be pursued within the context of ensuring retirees maintain a reasonable standard of living. A number of countries have already gone some way down this path (Box 2.2) although life expectancy risk and its financial consequences for public pension systems will undoubtedly vary across countries.

### Does KiwiSaver go far enough?

KiwiSaver remains a voluntary scheme, albeit with both incentives for participation and the behavioural advantage of automatic enrolment for those starting a new job with the right to opt out. Its design would be very easy to convert to a compulsory private pension scheme, and a number of commentators have called for this, especially since New Zealand is almost alone among OECD countries in not having any form of compulsory second-tier pensions. But although making KiwiSaver compulsory has some attractions, it would also have considerable drawbacks.

One of the main arguments in favour of compulsion in other OECD countries is to reduce the moral hazard associated with income-tested or minimum first-tier pensions, whereby people are less inclined to save for themselves, especially knowing that this may reduce their public pension entitlements. But this argument is much weaker in New Zealand as long as NZS remains a universal basic pension. It could also be argued that compulsion would enable the government to scale back the generosity of NZS, knowing that all workers would be able to call on at least some private pension assets. However, as the previous section pointed out, compulsion is not a necessary pre-condition for seeking such a change.

A further argument in favour of compulsion is that people are generally myopic in their attitudes towards retirement savings. The KiwiSaver approach is an innovative response to this that applies lessons from psychology to overcome this hurdle through the opt-out principle. The government has also made a major effort to promote financial education, not least through the activities of the Retirement Commission ([www.sorted.org](http://www.sorted.org)). Although it is impossible to be sure until KiwiSaver has been up and running for some time, in principle these approaches should go a long way towards addressing the myopia problem. However, one advantage of compulsion is that the present “sweeteners” built into KiwiSaver to encourage take-up would no longer be necessary, reducing the fiscal cost of KiwiSaver.

Compulsion also forces households to diversify their wealth portfolios by requiring them to accumulate financial assets. It is a well-accepted principle of finance that diversification lowers the overall risk of a portfolio. But housing is unusual because, unlike financial assets, it delivers a stream of services in itself as well as being a store of wealth. It is thus difficult to identify an optimal portfolio mix, because each household could have different preferences for housing.

Some NZ commentators have pointed to the Australian experience with its compulsory superannuation to argue that compulsion would help deepen financial markets (see Chapter 3). A significant voluntary uptake of KiwiSaver would also have this effect, and it is arguable how much additional funds compulsion would contribute,



especially since those likely not to save without compulsion are probably lower-income earners. If the objective is to increase the supply of domestic savings *per se*, then alternative measures such as adjusting the tax treatment or increasing financial education need to be investigated and evaluated for effectiveness as well.

The strongest argument against compulsion is that it pre-empts individual decision-making and can lead households towards sub-optimal results, through a false presumption that the state can identify better than individuals what is in their best interests (the so-called “nanny state”). While this may appear to be a largely moral or philosophical point, there are at least three situations where compulsion could easily lead to adverse outcomes. The first arises because, as noted earlier, NZS is already sufficient for a significant share of households to achieve consumption smoothing. Forcing them to save would give them greater consumption in retirement than they had been able to afford during working life. This could have particularly adverse effects during their child-raising years. The second occurs because, more generally, expenses and preferred consumption patterns are not constant during the working life, and imposing a fixed minimum savings rate may preclude many families from optimal household budget allocations (or oblige them to borrow to smooth their consumption). The third situation reflects differences in underlying household preferences towards home ownership – abstracting from biases induced by the tax system. Forcing some households to hold a greater weight of financial assets than they otherwise wish would lower their overall welfare, although securitisation through real estate investment trusts (REITs) would provide a way of rebalancing portfolios back towards real estate.

## Conclusions and policy recommendations

Overall, the foundations of New Zealand’s set of pension and retirement savings policies are sound, and the country has avoided some of the distortions experienced in other countries where pension policies have had some adverse effects on the incentive to work, in particular. Nonetheless, some residents are not saving enough for their retirement and/or are disproportionately relying on housing assets as a retirement savings substitute: they may get a rude shock when they retire to discover that they have considerably less spending power than they had expected. Such concerns have motivated the development of KiwiSaver, which, along with improved financial education, may play a considerable role in redressing these shortcomings. However, the effectiveness of KiwiSaver and other private retirement savings instruments will depend on the depth and efficiency of New Zealand’s financial markets (see Chapter 3) and removing the biases favouring housing at the expense of financial assets currently built into the tax system (see Chapter 4).

The basic structure of NZS has considerable merit: it is simple to understand and administer, it has successfully eliminated poverty amongst the elderly, and for the most part it enables a minimum level of participation in society. But it will contribute to rising government net debt levels relative to GDP over the longer term, despite the tax-smoothing role of the NZSF, unless other spending or revenue policy settings are adjusted to provide an offsetting effect. There may be some scope to pare it back without causing elderly poverty to re-emerge, especially if financial education helped people to develop realistic expectations about retirement income and the role of private savings efforts. There are two main options for lowering pension spending. The first would be to adopt an indexation formula that increased benefits more slowly than wages, thereby lowering replacement

rates for each pensioner. The second would be to gradually push back further the age of entitlement to NZS, leaving replacement rates the same, but paying benefits to fewer people. Careful attention also needs to be paid to managing the fiscal risks, most notably those associated with increasing life expectancy. Evaluating these options would also need to take into account the possible impact on take-up rates of other social transfers that could result from changes to the parameters of NZS.

KiwiSaver is an innovative approach to encouraging private savings for retirement, drawing on the insights from behavioural economics. It remains to be seen whether its introduction will raise aggregate household saving, but, *a priori*, the strategy is promising. However, its effectiveness in leading households to diversify their net wealth away from housing could be undercut by the housing-related possibilities that have been embedded in it, especially if mortgage withdrawal becomes a widespread feature. The removal of these provisions would enhance the efficiency of KiwiSaver as a retirement saving instrument. However, extending KiwiSaver further by converting it into a compulsory scheme would be premature. The pros and cons of compulsion need to be carefully studied and assessed against alternative policy options that may turn out to be more efficient and effective than compulsion in achieving higher living standards for all.

The advent of KiwiSaver has led to a number of other adjustments to existing employer-based registered superannuation schemes to avoid disadvantaging those already saving through such instruments, including providing a tax exemption for employer contributions. However, retail pension schemes have been rendered less attractive as a result. At this point it is difficult to establish whether this will lead to them being crowded out of the market or whether their members will find themselves less well off as a result. Their situation should be kept under review to ensure that all pension schemes receive equal treatment.

Overall, the key elements are in place to allow for an improvement in New Zealanders' preparation for retirement at both the aggregate and the individual level. But judicious fine-tuning could produce even better results (Box 2.3).

### Box 2.3. Policy recommendations for public pensions and retirement savings

The following measures could enhance New Zealand's policy settings for public pensions and private retirement savings:

#### **New Zealand Superannuation**

- Evaluate paring back the projected cost of New Zealand Superannuation (NZS) by choosing an index formula that provides for benefits to increase more slowly than wages and/or by further raising the age of entitlement.
- Consider adopting a mechanism for linking the age of NZS entitlement to life expectancy.
- Monitor periodically the situation of pensioners to ensure that they do not become more exposed to poverty and hardship than other groups within society.

#### **KiwiSaver**

- Remove the housing-related sweeteners from KiwiSaver and monitor and evaluate the impact of the one-time capital withdrawal provision on KiwiSaver take-up rates and savings behaviour more generally.

### Box 2.3. Policy recommendations for public pensions and retirement savings (cont.)

- Ensure that KiwiSaver and provisions for employer-based registered superannuation schemes do not disadvantage or crowd out retail pension plans.
- Keep KiwiSaver voluntary for the present time, and monitor its impact on household savings rates and the supply of domestic savings. But keep the compulsory option in mind if the voluntary route does not produce the desired effects over the medium term.

#### Other policy areas

- Pay careful attention to financial market regulation (see Chapter 3) and the tax regime (see Chapter 4) to ensure that policies in those areas are consistent with government objectives to encourage the accumulation of financial assets for retirement purposes and provide a neutral treatment between housing and financial assets.

#### Notes

1. For the rest of this chapter, the term NZS will be used to describe both National Superannuation and NZ Superannuation.
2. A mandatory scheme has been historically viewed as undesirable in a number of government reports that reviewed the social security system (Hurnard, 2005). Moreover, a government proposal to introduce a compulsory retirement savings scheme was heavily defeated in a referendum in 1997. This has made it difficult for subsequent governments to put any compulsory system on the political agenda.
3. There was also, briefly, a compulsory contribution scheme established during the term of the third Labour government (1972-75).
4. More specifically, residency must be established for at least 10 years after age 20, five of which must have been after the age of 50.
5. Together with the age qualification, this is often called “65 at 65” – at age 65 a married couple will receive at least 65% of the average net earnings.
6. This may reflect the fact that some other reserve funds have been in place much longer than New Zealand’s (e.g. the Social Security Trust Fund in the United States was established in 1940), and, in Norway’s case, special endowments from the petroleum fund have made a substantial contribution to reserve fund assets since 2003.
7. The NZSF is managed by “Guardians of the Fund”, an independent board of trustees, who appoint professional fund managers to make its portfolio investment decisions.
8. Unlike a stand-alone scheme, master trusts can also include an insurance component, in which employees take advantage of life, disability and medical plans.
9. The SSRSS is a voluntary, portable defined-contribution scheme (using master trusts), in which a variety of investment choices are offered by scheme providers. Employers can contribute up to 3% of gross salary, matching the contributions made by employees. Just under a quarter of members of occupational pension plans are in defined-benefit schemes. After the Government Superannuation Fund (GSF) – a defined-benefit scheme – was closed to new members in 1992, some individual departments initiated their own schemes. These schemes are being integrated into the new scheme. At the same time, the GSF is responsible for the unfunded liabilities equivalent to NZD 11 438 million as of June 2006, according to the Government Actuary. In parallel to the SSRSS, teachers are entitled to join their own defined-contribution scheme, called the Teachers Retirement Savings Scheme (TRSS).
10. ESR Consortium (2003) reports, however, that less than half a per cent of all employers actually use the salary sacrifice facility due to its high compliance costs.
11. Investment through a collective scheme generally resulted in that scheme falling foul of the definition of revenue for tax purposes, which resulted in gains that would be non-taxable if made directly by an individual becoming taxable when made on behalf of a group of investors. There

were ways for trustees to avoid this treatment, but the only way to do this without leaving a risk of reversal was to obtain a ruling from the revenue department that the fund was a purely “passive”, i.e. index tracking, investment. These rules distorted the efficient use of capital in New Zealand and were removed last year.

12. Individuals’ direct investments are not subject to capital gains, and funds trading activities are unlikely to be subject to capital gains tax as long as they are “passive” in the sense that the investment decisions are being made in accordance with the market index. But active trading activities had been subject to capital gains tax.
13. The idea of an automatic enrolment in KiwiSaver has its origin in behavioural economics. According to this theory, employees, who find it difficult to make decisions regarding joining the pension schemes, deciding contribution rates and choosing investment strategies, are likely to stick with default options provided in the scheme. From the perspective of the government, which wants to encourage participation in KiwiSaver, it is better to provide the automatic enrolment as the default option, and then give employees a chance to opt out, rather than waiting for them to join KiwiSaver.
14. Some countries, however, have provisions to allow withdrawal of savings for home purchase. The Canadian government provides a Home Buyers’ Plan under which members of the plan are allowed to withdraw up to CAN 20 000 from their Registered Retirement Savings Plan so as to buy a home. But there is a clear repayment schedule imposed. Germany allows members to withdraw funds from the tax-favoured Reister-Plans, as long as they are repaid before retirement. Switzerland also allows pensions savings to be withdrawn for home purchase or investment in real estate funds, with no repayment required. US workers can take out loans from 401(k) accounts but must pay them back with interest or face a tax penalty.
15. Under this approach the net start-of-year values of the assets are treated as being hypothetically invested in a risk-free government bond, and the income from an inflation-adjusted risk-free rate of return will be subject to taxation according to the investor’s marginal tax rate. In this way, the income is captured in a comprehensive manner, and it is subject to the same tax liabilities.
16. Some countries have chosen longer time horizons. For example, the time horizon in the United States has historically been 75 years. More recently, there is a move to prolong that to an infinite horizon, or at least 75 years with the condition that the financial balance of the fund will not deteriorate at the end of the horizon. This variable essentially controls the degree of pre-funding. A one-year time horizon corresponds to a pure pay-as-you-go system.
17. It should be noted that the relationship between income and material well-being among the elderly is not necessarily simple. One empirical assessment indicates that the factors that affect material well-being among older New Zealanders to some extent, at least, reflect their circumstances before retirement, so that even those at the same income level may have significantly different levels of material well-being. Nonetheless, although most of the elderly score highly on measures of material well-being, there is a long tail of those in poorer circumstances, even at present levels of NZS benefits. This suggests that supplementary measures targeted at the small share of the elderly in real need might be appropriate in any case (Hurnard *et al.*, 2005).

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## Chapter 3

# Deepening financial markets

*New Zealand's financial markets are relatively small by OECD standards, and dominated by the banking sector, although there are no obvious regulatory barriers impeding financial market development. The country has accessed international capital markets for many years to finance investment, although in recent years the banks have channelled a significant share of foreign capital inflows into mortgage lending. Domestic bond market liquidity has been hampered by the twin developments of shrinking public debt and the Approved Issuer Levy that discourages domestic corporate bond issues. Fostering the development of deeper bond financial markets would provide a wider range of options for managing risks as well as for raising capital. However, there is little evidence that NZ businesses are systematically constrained by lack of access to finance and the small corporate bond market may partly reflect the small share of large private-sector enterprises. Some improvements could be made to enhance the environment for savings instruments. The governance structure for collective investment schemes needs to be strengthened and a more rigorous approach to disclosure requirements for fees and expenses would enhance transparency and comparability. Efforts to improve financial literacy and plans to integrate financial education into the school curriculum are welcome.*

The depth and efficiency of financial markets matter for economic growth. Financial markets play several important roles. By easing liquidity constraints, they help to stabilise the economy by smoothing output and consumption in response to exogenous shocks. They provide an intermediation role, channelling funds from savers to borrowers, allowing for a more responsive and efficient allocation of scarce economic resources. And they provide the wherewithal for capital formation. The link between their development and economic growth has been established in a number of empirical studies that find a direct link to productivity outcomes or to the accumulation of physical and human capital (see, for example, de Serres *et al.*, 2006).

Although New Zealand's financial markets were liberalised in the second half of the 1980s, they have remained relatively shallow by OECD standards, which could be a factor holding back the country's overall economic performance. This chapter starts by assessing the key features of the financial system. It then examines the role that financial markets play in smoothing volatility and managing risk exposure in New Zealand. The performance of the system in allocating capital to its most efficient and productive uses is then discussed. Next the chapter looks at the range of financial instruments available to savers, especially in the context of efforts to encourage greater diversification of household portfolios by promoting financial asset accumulation. The chapter ends with some concluding remarks and recommendations for policy.

### Financial markets in an international context

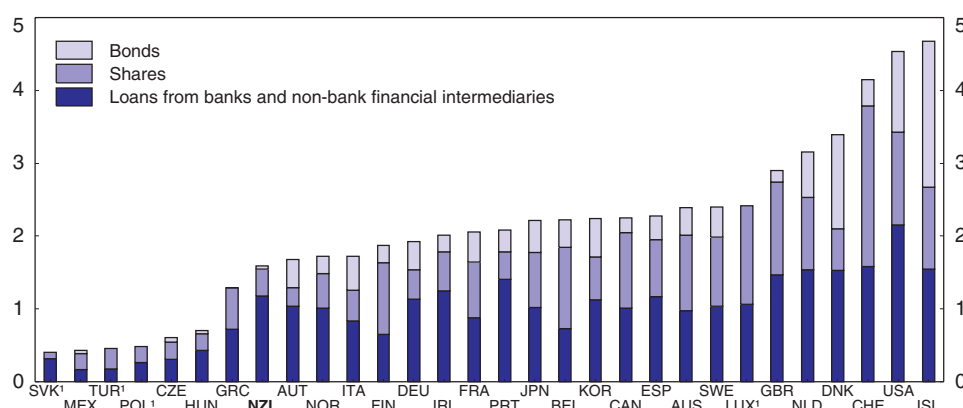
New Zealand undertook widespread and comprehensive financial market liberalisation in the 1980s and some sophisticated financial instruments have been developed, but the overall size of the financial market remains relatively small. On a measure combining total loans to the private sector and securities market capitalisation relative to GDP, New Zealand's market overall is smaller than most OECD countries and the smallest among the more advanced countries (Figure 3.1). The main differences are in securities markets. New Zealand's share market capitalisation is around 35% of GDP, compared with an OECD average of 65% of GDP and the domestic corporate bond market is less than 5% of GDP compared with an OECD average of 39%.

New Zealand thus relies more heavily on bank loans as a source of financing than most other countries. Furthermore, bank lending is becoming increasingly concentrated in residential mortgages.<sup>1</sup> Hence, overall lending to households as a share of total bank assets rose by 10 percentage points to 47% between 2000 and 2005 (RBNZ, 2006). To some extent, this reflects the large increases in house prices in recent years (see Chapter 1). In any case, NZ households tend to be relatively highly indebted, compared to other countries, and this debt is overwhelmingly held as mortgages (Girouard *et al.*, 2006).

A further unusual feature in New Zealand is the dominance of agriculture in bank lending to the resident non-corporate financial sector, even though agriculture accounts for less than 5% of GDP (Table 3.1). Agriculture may have a larger need for working capital

Figure 3.1. **Financial market size and composition**

Ratio to GDP, average 2003-05



1. Figures are the sum of private credit and stock market capitalisation.

Source: Reserve Bank of New Zealand; New Zealand Exchange and World Bank, Financial Development and Structure database.


StatLink  <http://dx.doi.org/10.1787/007702353070>

Table 3.1. **Bank lending to non-financial corporate sector**

	Per cent
Agriculture	36
Property and business services	27
Other sectors	37
Total	100

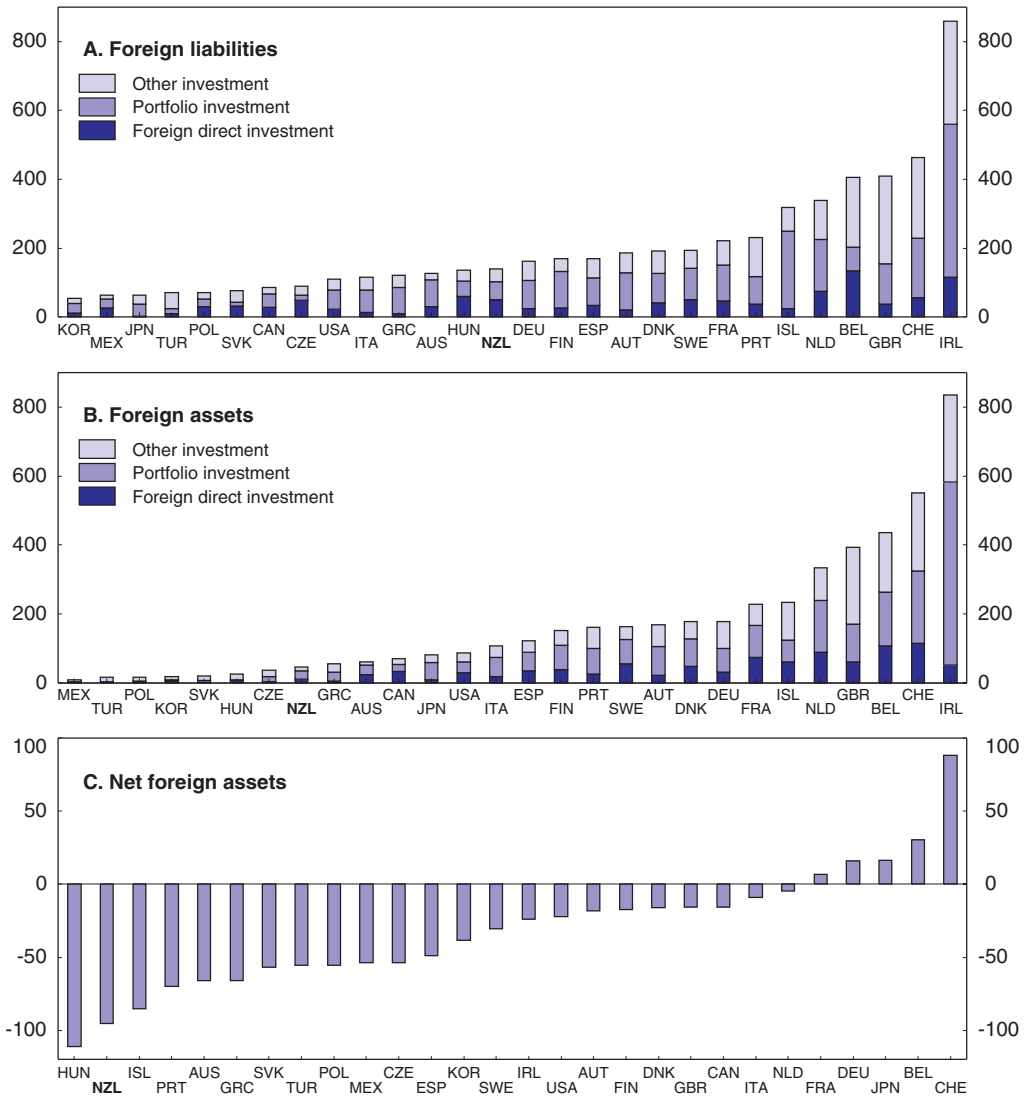
Source: Reserve Bank of New Zealand (2006), Financial Stability Report, November.

than other businesses, but it is more likely that this credit growth has been driven to a large extent by sharp increases in rural land prices. Those prices, in turn, encapsulate buoyant returns on dairy farming, in particular, the conversion of farmland into rural “lifestyle blocks”<sup>2</sup> and new residential developments more generally. The debt-to-profit ratio for the agriculture sector is twice as high as for the non-financial corporate sector as a whole although 20% of indebted farms account for around 80% of rural debt (RBNZ, 2006).

With a long-standing gap between domestic investment and savings, the country has for many years tapped into international financial markets to make up the shortfall in availability of local funds. As a result, New Zealand has net international liabilities amounting to over 80% of GDP, the second highest ratio in the OECD (Figure 3.2). Portfolio and other investments account for two-thirds of the stock of foreign liabilities in New Zealand, with foreign direct investment (FDI) the remainder. New Zealand has a relatively large inward FDI position relative to other countries. Around a quarter of this FDI comprises the equity of the foreign-owned banks in New Zealand.


It is impossible to say whether the country’s securities markets are small more because of lack of supply or of demand. Domestic markets are small when measured not only by the use of funds but also by their supply, most notably with low levels of assets for pension funds and life insurance (Figure 3.3). The supply of these funds is driven by public pensions and retirement savings policies (see Chapter 2) and taxation (see Chapter 4). It would, of course, be inefficient risk management for such investments to be held



Figure 3.2. **International investment position**Per cent of GDP, 2005 or latest available year<sup>1</sup>

1. 2004 for Austria, Finland, Ireland, Korea, Netherlands, Norway, Sweden, Turkey; 2003 for Slovak Republic.

Source: IMF, International Financial Statistics database and OECD calculations from Economic Outlook 80 database.

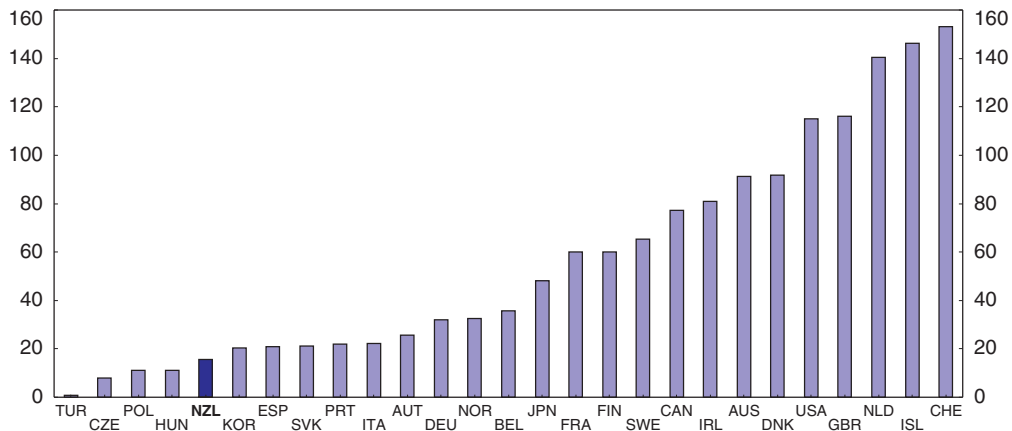
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exclusively domestically; but even if a portion were held offshore, larger asset holdings would increase the depth of financial markets (as long as such instruments did not completely crowd out other savings channels).

There are no major regulatory barriers inhibiting the development of financial markets. Indeed, New Zealand is very well placed according to the OECD's indices of banking and securities market regulation (Figure 3.4). This means that not only is the country fully open to international capital markets, but it should also be an attractive destination for both foreign and domestic savings. But it also indicates that excess or inappropriate regulation could not be a plausible explanation for why New Zealand's

Figure 3.3. Pension fund assets and life insurance investments

Per cent of GDP, 2004 or latest available year



Source: OECD, Global Pensions Statistics database.


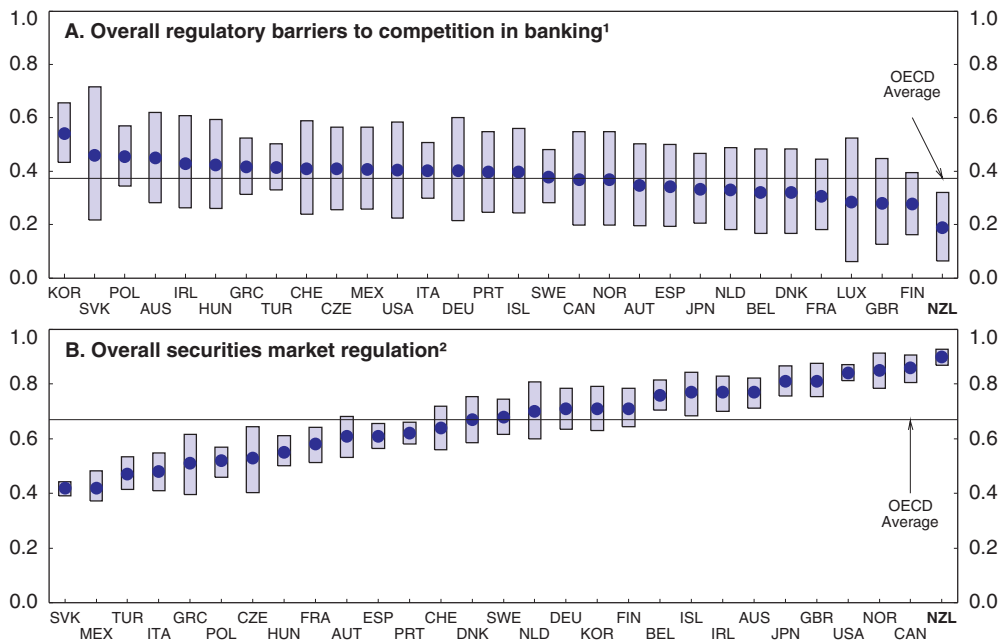

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Figure 3.4. Indices of banking and securities market regulation



1. The scale of the indicator is 0-1 from the least to the most restrictive. A higher value indicates more competition-restraining regulation. It is compiled as an average of indicators covering domestic entry, foreign entry, activity, and government ownership.

2. The scale of the indicator is 0-1 from least to most demanding. A higher value indicates regulation that is more conducive to financial development. It is compiled as an average of indicators covering contract enforcement, access to credit, investor protection, and bankruptcy procedures.

Source: OECD (2006), *Economic Policy Reforms, Going for Growth*, 2006 Edition, OECD, Paris.StatLink  <http://dx.doi.org/10.1787/007808737642>

markets have remained so small. Nonetheless, the government has two regulatory reviews underway – the Review of Financial Intermediaries and the Review of Financial Products and Providers<sup>3</sup> – to verify whether there are areas where improvements could be made (see Box 3.1).

### Box 3.1. Regulatory reviews covering financial markets

#### Review of Financial Intermediaries

The objectives of this review are to ensure that intermediaries are effective and efficient in addressing information asymmetries in the market, and that the policy framework addresses the information asymmetries about the intermediaries themselves by providing the investor with confidence in the competency and integrity of their intermediary.

The review focuses on the following matters:

- ensuring adequate disclosure of intermediaries' conflicts of interests, fees and competency so that investors/consumers can make informed decisions about whether to use an intermediary and whether to take its advice.
- ensuring that intermediaries have the experience, expertise and integrity to effectively match investing consumers with products that best meet their needs and risk profile, holding intermediaries accountable for any advice given, and establishing incentives for intermediaries to manage conflicts of interest appropriately.
- promoting the development of a sound and efficient financial sector in which the public has confidence in the professionalism and integrity of intermediaries, providing regulation that is well targeted without imposing unnecessary costs, and encouraging innovative and competitive markets.

#### Review of Financial Products and Providers

The key objective for this review is to develop an effective and consistent framework for the regulation of non-bank financial institutions and financial products. Its aim is to promote confidence and participation in financial markets by investors and institutions, resulting in a sound and efficient non-bank financial sector.

The review is essentially a stock-take of current regulation and an evaluation of whether that regulation needs to be improved so as to keep pace with the evolution of financial markets. Nine discussion documents on the options for reform have now been released. They cover the following areas: the registration of financial institutions; insurance; supervision of issuers; consumer dispute resolution and redress; non-bank deposit-takers; collective investment schemes; governance of mutuals; securities offerings; and platforms and portfolio management services.

#### Next steps

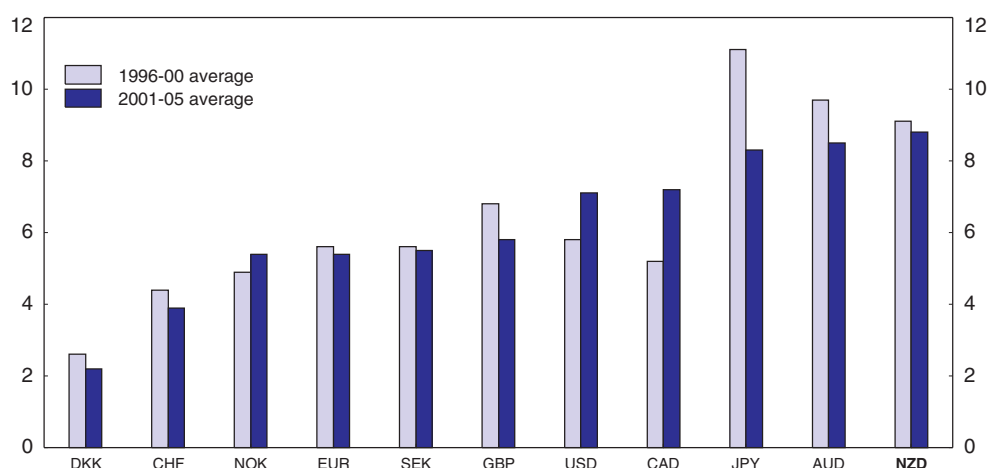
Public submissions on both reviews have now closed. Although they were originally on separate tracks, the government has decided that it would be better for the specific policy proposals emerging from each review to be considered together to ensure consistency. It is envisaged that policy proposals would go to Cabinet in mid-2007 and legislation would be introduced to Parliament subsequently.

Source: Ministry of Economic Development.

## Volatility, liquidity and managing risk


Deep and liquid financial markets play an important role in smoothing volatility in activity and managing risk. One source of volatility, especially for those dealing in tradable goods, is the exchange rate. The value of the NZ dollar has been highly volatile, compared with many other OECD currencies (Figure 3.5). Furthermore, businesses are exposed to large longer-term swings in the exchange rate which, in turn, account in part for the interest rate premium on longer-dated obligations (see Chapter 1). Well-developed and

Figure 3.5. Volatility of foreign currencies



Note: The historical volatility is based on the standard formula,  $\sqrt{\sum_{i=1}^{60} (\Delta \ln e_{t-i})^2 / 60}$ , where  $e_t$  is the level of nominal effective exchange rate at day  $t$ . It is then annualised by the number of working days in a year, simply assuming 260 days.

Source: Bank of England and OECD calculations.

StatLink  <http://dx.doi.org/10.1787/007830646375>

diversified financial markets generally provide the means through which firms can manage the impact of these fluctuations on profitability in a range of different ways. Indeed, the more efficiently that markets play this role, the steadier the economic path will be, all else equal.

The NZ dollar (NZD) bond market is segmented into a small domestic bond market and non-resident issued NZD-denominated bonds, often referred to as “Eurokiwi” and “Uridashi” bonds (Box 3.2). The total domestic bond market is not only small but also relatively illiquid, reducing the signalling information that market prices can convey. Turnover in government bonds can provide market participants with a benchmark yield curve against which firms can assess the cost of raising capital and corporate credit risk premia can be established. But strong public finances and diminishing gross public debt as a share of GDP over a number of years have reduced the supply of government paper to the market and around 70% of the existing stock is now held by offshore investors with little interest in active trading. However, a government bond futures market, which has emerged in some countries to fill the liquidity gap associated with the falling supply of physical bonds, has not developed in New Zealand.

The New Zealand Debt Management Office (NZDMO) is charged with minimising the cost of government borrowing. It is not required to issue bonds so as to provide liquidity to the market.<sup>4</sup> Nonetheless, over the past two fiscal years it has lengthened its issuance horizon and taken a strategic decision to take advantage of favourable yields and to maintain borrowing in anticipation of rising future funding requirements. This has resulted in greater liquidity than would have occurred if borrowing had been limited to matching current requirements. In addition, the government’s funding requirement has been consolidated into the domestic bond market rather than issuing more expensive foreign-currency debt. The NZDMO has also consolidated its lines of debt into benchmark holdings i.e. bonds with sufficient volumes at the given maturity to enable purchasers to buy with confidence over the liquidity. These measures have supported liquidity in the government bond market.

### Box 3.2. Eurokiwi and Uridashi bonds and the carry trade

Over the years, offshore NZD-denominated bonds, issued by non-resident borrowers and sold to non-resident investors, have become increasingly popular in international capital markets. Among those are “Eurokiwi” bonds, issued by European and global borrowers, and “Uridashi” bonds, issued for Japanese retail investors.

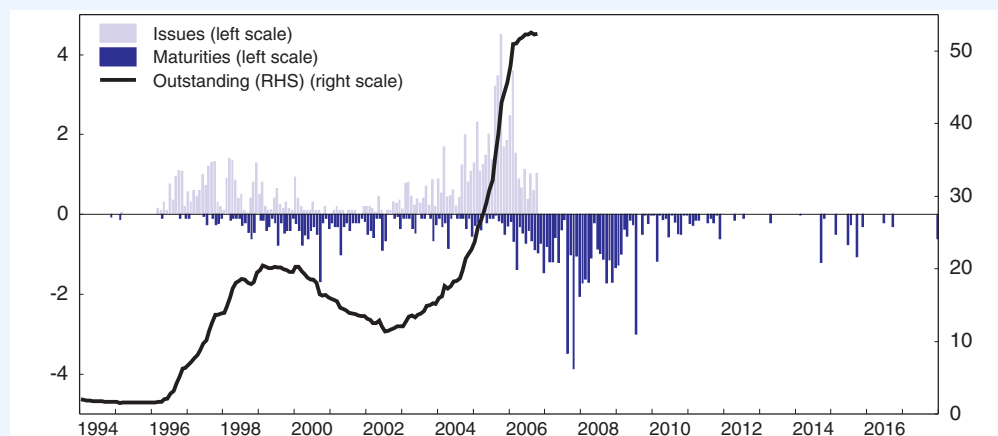
For global investors – Japanese retail investors in particular – the high yields on NZD offshore bonds provide attractive investment opportunities. The expected movement of the NZ dollar against investors’ home currencies will also affect the return, though it is not entirely clear whether the foreign exchange risk is thoroughly understood by retail investors overseas.

For issuers with high credit ratings and facing large funding needs, offshore NZD markets provide an opportunity to exchange the NZD proceeds, *via* swap transactions, with NZ banks that have raised funds in foreign currencies in international capital market and are willing to exchange their proceeds with issuers. Under this transaction, issuers benefit from the rate differentials between the cost of issuing offshore NZD bonds and the swap rate they receive from NZ banks. NZ banks also benefit from a lower cost of borrowing in foreign currencies, rather than the NZ dollar in international capital markets, and enjoy the interest rate margin between the swap rate and the retail interest rate (e.g. mortgage rate) they charge on New Zealand households. Thus, both issuers and NZ banks will gain from such transactions.

Reflecting matching needs of global investors, offshore bond issuers and NZ banks alike, the outstanding amount of Eurokiwi and Uridashi bonds has increased at a rapid pace since 2002, reaching NZD 53 billion in August 2006 (Figure 3.6). However, a significant share of offshore bonds is scheduled to mature within a relatively short time. Indeed, NZD 16.9 billion will mature in 2007 and NZD 15.2 billion in 2008. Unless these bonds are rolled over into new NZD-denominated bonds or other NZD assets, they will exert considerable pressure on exchange rates and interest rates.

Figure 3.6. NZD bond issuance in offshore markets

Eurokiwi and Uridashi bonds, NZD billion



Source: Reserve Bank of New Zealand.

StatLink  <http://dx.doi.org/10.1787/007851787734>

Some countries with shrinking debt have decided that it is important, in any case, to maintain the government debt market infrastructure in anticipation of rising future financing needs associated with ageing populations. But they then need to hold correspondingly higher financial assets. Holding cash can be costly, while investing in private financial assets (domestic or foreign) increases government ownership of the private sector.<sup>5</sup> In New Zealand's case, additional issuance of government bonds at a time of very strong investor demand has enabled the proceeds to be invested in a portfolio of high quality assets at a positive margin. Over time these assets will be reduced and the proceeds will be used to smooth out future increases in the Government's debt programme.

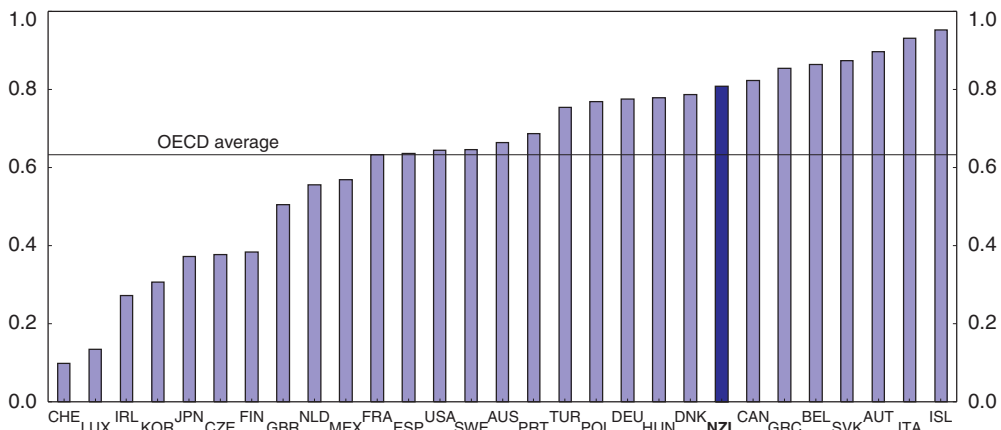
It could be argued that New Zealand's deep swap market has sufficient liquidity to provide benchmarks needed to underpin the development of a larger corporate bond market, making additional government debt issuance unnecessary. Although liquidity has fallen in the New Zealand government bond market, the spread between 10-year bonds and 10-year swaps has widened since its low point in early 2003 to 88 basis points on average in 2006, compared with a spread of 52 basis points for the United States. In turn, as spreads have widened, local investors have moved into short-term debt and used interest-rate swaps to get longer-term interest rate exposure. Some of this spread could be interpreted as a "scarcity premium" on government bonds. However, the spread will also reflect credit risk and perhaps country risk more generally. If foreign investors were to become reluctant to roll over their swap transactions it could become difficult to disentangle the scarcity component from a higher risk premium on swaps. Indeed the New Zealand spread jumped to around 120 basis points in March. Overall, it remains unclear whether the swap market is able to provide a sufficient benchmark yield curve for the economy as a whole and whether increased government bond issuance may be warranted.

The domestic corporate bond market is also very small and rather illiquid, for a number of different reasons. One factor limiting interest in domestic issuance of corporate bonds may be the Approved Issuer Levy (AIL). This levy is a substitute for the non-resident withholding tax and is calculated at the rate of 2% of the yield of a NZ-registered security. At present banks and other large institutions can avoid payment of AIL by raising capital in foreign markets rather than through domestic issues. The mechanism used is to set up an offshore branch for the specific purpose of accessing offshore capital markets to obtain exemption from the AIL (Bollard *et al.*, 2007). These branches then lend the capital raised back to their parent companies. Indeed, the major New Zealand registered banks have all done this.

Offshore-issued NZD-denominated bonds have become increasingly popular among foreign investors searching for higher yields than available in other markets. As a result, offshore markets have provided an important channel for NZ banks to increase the availability of credit to households and enterprises by swapping the proceeds between foreign currencies and the NZ dollar with the issuer of the offshore bonds. Indeed, offshore markets have played a significant role in meeting the additional mortgage demand associated with the sustained period of rapidly rising house prices. Conversely, easy access to such credit may have spurred real estate prices to higher levels than they would otherwise have reached. And the maturity structure of offshore NZD bonds is relatively short, creating a risk that investors may decide not to roll over into NZD denominated assets at some point in the future.

Indeed, New Zealand may be particularly vulnerable to sudden shifts in global investor sentiment, and the situation may be exacerbated because its external liabilities consist mainly of short-term debts. More specifically, debt securities account for 80% of New Zealand's total portfolio investment liabilities (Figure 3.7), and the majority of them are expected to mature in a relatively short period of time.<sup>6</sup> The Reserve Bank is relatively sanguine about the risk of sudden withdrawal by foreign retail investors (RBNZ, 2006), but this depends on a number of assumptions about the ongoing preferences of foreign investors.

Figure 3.7. **Debt securities as a share of portfolio investment liabilities**  
2000-05 average



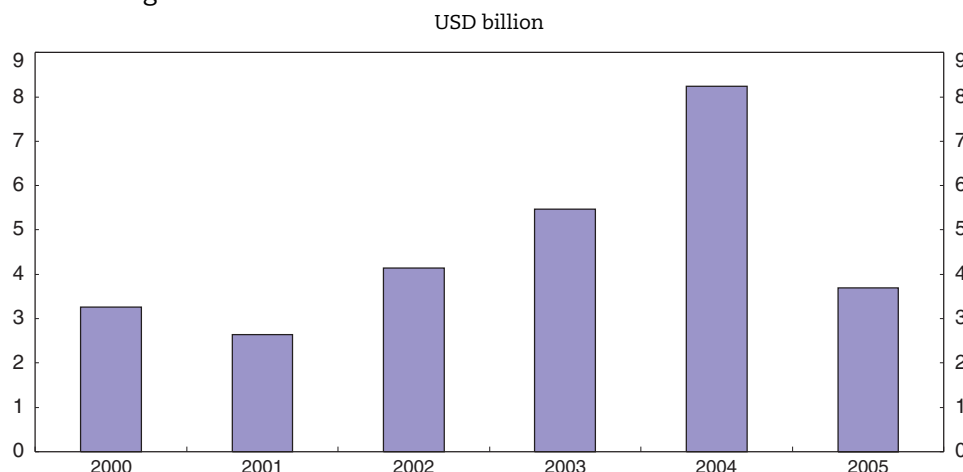
Source: International Financial Statistics database.

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In addition to the risk of changing foreign investor sentiment vis-à-vis New Zealand specifically, the current situation of abundant global liquidity could also change, against the background of the continued withdrawal of monetary accommodation worldwide and re-spending patterns by oil-producing countries. With less funds available internationally, local interest rates would have to rise relative to other countries to maintain the current level of inflows, over and above increases in global rates. Moreover, higher funding costs in foreign currencies may also squeeze the margin for banks to engage in swap transactions with offshore NZD issuers, and their situation may worsen if the higher costs cannot be passed on to households via a further pickup in mortgage rates.

New Zealand does have a deep and liquid derivatives market with both foreign currency and interest rate swaps (Figure 3.8). These allow larger enterprises to access international capital markets directly and cover the associated currency and interest rate risks. Hedging of foreign exchange risks is widely practised in New Zealand and worldwide and can also be done by matching the currency composition of the two sides of the balance sheet without resorting to formal derivative contracts. Natural hedging is also used by enterprises that can match the foreign exchange proceeds stemming from their overseas transactions. Companies may also choose to buy forward cover for their transactions. But managing exchange rate risk through whatever channel involves some cost.

While the hedging of foreign currency exposure is part of normal business, it covers relatively short-term exchange rate risk, and the risk management of foreign exchange movements in the longer term has been largely beyond the scope of market participants in

Figure 3.8. **Financial derivative liabilities of New Zealand**

Source: International Financial Statistics database.

StatLink  <http://dx.doi.org/10.1787/007862313430>

any country. Since markets are unable to provide instruments to help companies manage these exchange rate risks, one option is for the Reserve Bank to endeavour to attenuate the extremes of the exchange rate cycle. This would follow the practice of the Reserve Bank of Australia, which holds an open exchange rate position and intervenes in episodes where the exchange rate has clearly moved a long way from the level supported by fundamentals. The Reserve Bank's foreign exchange intervention policy was changed in 2004, so as to allow it to reduce cyclical exchange rate variability when the level of the exchange rate is considered exceptionally and unjustifiably high or low (Eckhold and Hunt, 2005). But so far, the Bank has not exercised these powers.

Another concern with the amplitude of the exchange rate cycle is related to household indebtedness. NZ households are highly indebted, and the share of mortgage debt to household debt is the highest across OECD countries. Moreover, holding patterns of debt in New Zealand are widely dispersed across different age and income groups (Girouard *et al.*, 2006). Under such circumstances, households are vulnerable to adverse developments, such as a sharp rise in interest rates, which exchange rate movements could trigger. Such impacts would be spread over time, affecting those with mortgage and other debts with floating interest rates immediately and those on fixed-rate mortgages with some delay. Nevertheless, the effect of adverse shocks on the household sector could be considerably wider than currently anticipated.

### Allocating capital to its most efficient use

A major channel through which financial markets contribute to productivity growth is by enabling capital to be quickly and efficiently reallocated to its most productive uses through time. Efficient financial markets ease the external financing constraints that firms face, both for working capital and, more importantly, for undertaking investment in productive capacity. Financial intermediaries play an important role in reducing the costs of collecting and analysing information about investment projects for borrowers, as well as managing risk.

The nature of financing for the corporate sector also makes a difference. Relationship-based systems (traditionally dominated by bank financing and private equity) can help to



smooth cyclical variations by providing greater cash flow support when demand changes are temporary<sup>7</sup> (IMF, 2006). In contrast, more arms-length (i.e. market-based) systems perform better at reallocating resources from declining sectors to relatively new sectors and firms by making it easier for them to capitalise on opportunities, especially in new technology, thereby driving productivity growth. Furthermore, internationally, banking services to businesses are shifting from direct lending to helping corporate clients to raise bond finance<sup>8</sup> and concentrating their relationship banking in household and small business financing (Issing, 2005).

In this context, the fact that NZ banks are providing a shrinking proportion of their lending to businesses should not be interpreted as a negative development, nor should it be blamed on the introduction of the Basel II Capital Framework, as some have suggested. However, in New Zealand's case, the counterpart of this shift – increasing business recourse to bond and equity markets for raising finance – does not appear to be emerging. There are 174 companies listed on the main New Zealand Stock Exchange, 29 companies on the Alternative Market and 47 companies with publicly listed debt securities. In contrast, the Australian Stock Exchange has 1 930 listed issuers for an economy 6 times the size of New Zealand's. However, there are less than 2 000 companies with more than 100 employees in New Zealand, including some large state-owned enterprises.

New Zealand's rather small domestic securities markets may, to some extent, reflect a lack of firms large enough to make tapping directly into capital markets through public trading an efficient way to access funds. Indeed, even among many larger businesses (100-500 employees), banks and finance companies dominate the provision of debt finance, and the individual in control of the business is the most frequent source of new equity (Table 3.2). Furthermore, the Survey of Business Finance conducted in 2004 did not point to any obvious difficulty with obtaining finance: a very high proportion of businesses seeking finance was able to obtain it. This picture is consistent with survey findings on constraints facing business: NZ companies were less likely to cite finance as a major constraint than companies globally (Figure 3.9). However, in New Zealand, it appears that many small business owners do not understand external equity finance, confuse it with debt and have a negative perception of their ability to attract external investment (Robertson and Belanger, 2006).

Although there are no obvious finance constraints hampering business growth in general, it is often believed that there is a serious financing gap, in both New Zealand and in other countries, for small, innovative firms with major growth potential (OECD, 2006). There is very little empirical research available to address this issue in New Zealand, and such a gap is difficult to discern (Robertson and Belanger, 2006). Venture capital is one possible source of such financing. To encourage the development of a local venture-capital industry, the government established the NZ Venture Investment Fund (NZVIF) in 2002 with NZD 100 million of committed capital. It is a state-owned enterprise with an independent board of directors, selected for their venture-capital and commercial experience. It operates as a "fund of funds" by investing in privately managed venture capital funds (known as VIF Seed Funds).<sup>9</sup> The NZVIF is also responsible for implementing the Seed Co-investment Fund, established in 2005, to provide finance for seed-stage and start-up investments, with NZD 40 million available for investment over around a six year period.<sup>10</sup>

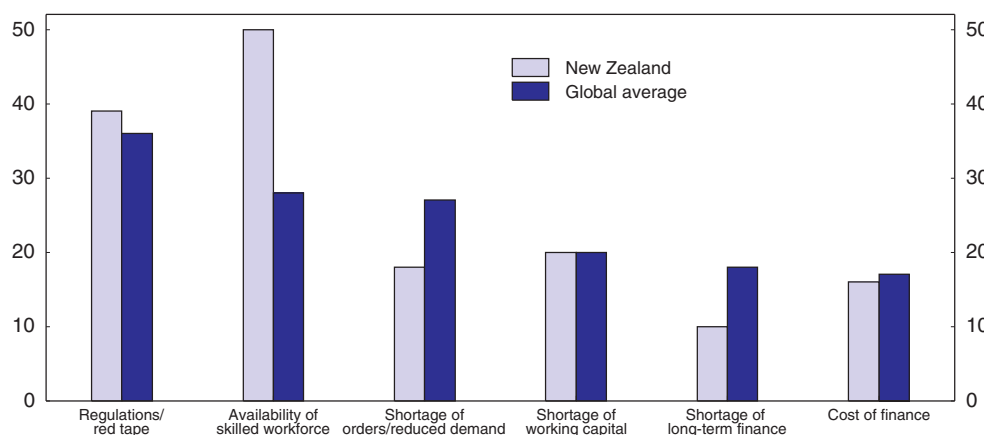
**Table 3.2. Sources of business finance**  
Last financial year<sup>1</sup>

	Size (employees)				Age (months)	
	1-5	6-20	21-100	101-500	6-36	Over 36
<b>Debt finance</b>						
Number of businesses receiving debt finance	13 385	9 349	2 268	198	7 129	18 072
Proportion of those receiving debt finance that obtained finance from <sup>2</sup>						
Banks	72	73	68	78	71	72
Finance companies	25	25	31	20	17	29
All other sources <sup>3</sup>	10	16	13	11	25	7
<b>Equity finance</b>						
Number of businesses receiving equity finance	1 969	1 470	350	21	1 666	2 143
Proportion of those receiving equity finance that obtained finance from <sup>2</sup>						
Individual(s) in control of business	88	78	75	57	85	81
Friends or family	10	13	8	..	14	9
All other sources <sup>4</sup>	11	20	29	50	17	16
<b>Debt and equity for NZ businesses</b>						
Total number of businesses	52 334	25 272	5 489	467	22 255	61 306
Total debt amount (NZD million)	10 436	11 968	8 589	5 152	5 471	30 675
Total equity amount (NZD million)	8 931	7 344	7 964	6 313	3 581	26 970
Debt to equity ratio	1.17	1.63	1.08	0.82	1.53	1.14


1. This information relates to the last financial year for which the business had results available as at August 2004.
2. Amounts are for NZ businesses in each category. Totals may exceed 100% if multiple sources are called upon.
3. Includes: "trade creditors or suppliers"; "existing owners"; "friends and family of existing owners"; "other individuals"; "other business"; and "other" sources.
4. Includes: "employees"; "other individuals"; "parent companies"; "venture capital/private equity funds"; "other businesses"; and "other" sources.

Source: Statistics New Zealand, Survey of Business Finance.

**Figure 3.9. Constraints on business expansion**  
Per cent of respondents rating constraint as major, 2004



Source: Grant Thornton International Business Owners Survey 2005.

StatLink  <http://dx.doi.org/10.1787/007888540133>

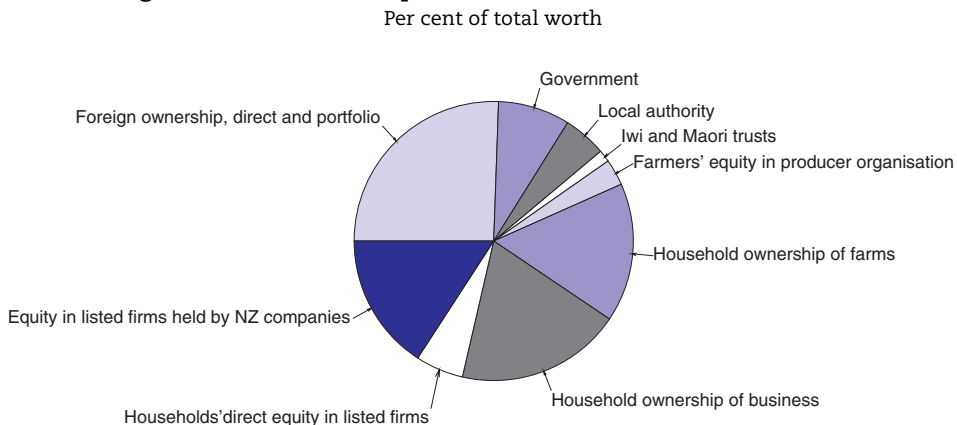
These government interventions have been carefully designed so as to foster the development of private equity markets to provide finance to business prospects with high potential (Lerner *et al.*, 2005). At the same time, the involvement of private investors and the risk-sharing arrangements are intended to avoid the pitfalls that are often associated with government efforts to address a perceived financing gap (OECD, 2006). Although the local venture-capital market is still relatively small, aggregate committed private equity

capital is estimated at NZD 2 billion (Ernst and Young, 2006). There were 54 deals made in the first half of 2006, worth an estimated NZD 434 million, but this included five very large private equity deals: the median deal size was only NZD 1 million.

It is an open question whether business expansion is essentially demand driven or could be stimulated by pension, venture capital and other managed funds taking the initiative to seek out potentially profitable opportunities. Under the latter hypothesis, local managed funds are able to see scope for expansion that business owners either fail to identify or are unwilling to exploit.<sup>11</sup> Local knowledge and proximity would enable domestic fund managers to fill niches that are of little interest to foreign funds (except possibly those from Australia). On this argument, a build-up of private pension funds, as envisaged under KiwiSaver, could help to spur productivity growth, assuming that such assets were not exclusively invested offshore.<sup>12</sup>


Another concern is that a considerable amount of capital is tied up in institutional forms that do not allow it to move quickly and easily to more productive uses. These comprise government and local authority enterprises, producer co-operatives, especially Fonterra, and Iwi and Maori trusts (Figure 3.10). The co-operatives and trusts must decide for themselves whether it would be in their interest to make changes that would allow their owners greater flexibility to reallocate their capital to other investments and to make it easier for the businesses to raise capital in equity markets. In contrast, the government could relinquish ownership of some of its business enterprises.<sup>13</sup> The sale of state enterprises operating in competitive markets would not unduly compromise its position to retain ownership of certain strategic assets and would both provide market discipline over those institutions' investment decisions and also allow that capital to be "unlocked" and shift to more productive uses over time if such opportunities were available in the market.

Figure 3.10. **Ownership of New Zealand's business sector**<sup>1</sup>



1. These estimates have been compiled by the Reserve Bank from a range of sources and therefore should be regarded as indicative only.

Source: Bollard, A. (2006), "Kiwis Like Buying Houses more than Buying Businesses", Pricewaterhouse Coopers Annual Tax Conference, 9 November, [www.rbnz.govt.nz](http://www.rbnz.govt.nz).

StatLink  <http://dx.doi.org/10.1787/008021186435>

A further feature is that around one quarter of the business sector is owned by foreigners, either directly (as subsidiaries or branches) or through portfolios. Foreign direct ownership can bring benefits that not only raise performance of the companies concerned but may also spill over to the rest of the economy by stimulating technology transfer and

innovative activity (OECD, 2003). But there are also concerns in New Zealand that if firms become foreign-owned, they may be more inclined to move their operations offshore, especially if they are able to reduce their exchange rate exposure and their tax liabilities by doing so. This so-called “hollowing out” would reduce the country’s productive capacity and thus its ability to generate income. Furthermore, foreign-owned companies that are part of multinationals may be less interested in developing their local operations beyond the domestic market if the company practises geographical market segmentation, limiting the contributions made by FDI to productivity growth.<sup>14</sup> Overall, foreign ownership corresponds to a significant outflow of investment income in the balance of payments, driving a wedge between GDP and national income, unless counter-balanced by New Zealanders’ holdings of offshore assets.

## Enhancing the environment for savings instruments

The expected growth in retirement savings will require the greater availability of suitable investment instruments, along with an efficient regulatory structure. There are already a number of registered pension providers (see Chapter 2). But the regulatory framework within which they, and all collective investment schemes (CISs), operate could be enhanced. Pension fund managers will also need to pay greater attention to their assets and liabilities management.

### **Regulatory framework of pensions**

The regulation and supervision of the financial sector in New Zealand is characterised as disclosure-based – providing depositors and investors with information and letting them make their own investment decision. CISs – participatory securities, unit trusts and superannuation schemes – are defined and regulated under different legislation. Managers and trustees in these different types of schemes face different duties and investor protection varies. Superannuation schemes are registered under the Superannuation Schemes Act 1989. The management of schemes is supervised by the Insurance and Superannuation Unit within the Ministry of Economic Development, and the Government Actuary reports on them to Parliament each year. The Act places emphasis on the roles and responsibilities of the trustees of schemes.

Trustees in superannuation schemes have an obligation to act in the best interests of investors and to protect their investments. They should act as independent monitors of the schemes’ issuers. Nonetheless, under the Securities Act, the trustees themselves are deemed to be the issuer. This undermines their role as trustees, as they cannot function as independent supervisors. As a result, checks and balances on trustees have not functioned well; in particular, the performance of their duties has been left largely unmonitored. Moreover, while the law stipulates that CIS issuers must appoint trustees, there is no criterion for the eligibility of trustees – anyone may become and act as a trustee. Such weakness in the regulatory structure has made investors vulnerable to opportunistic behaviour by issuers.

The Review of Financial Products and Providers (Ministry of Economic Development, 2006a and 2006b) proposes to streamline this structure into a single framework. It provides an umbrella definition of collective investment schemes, under which all the products with similar characteristics – pooling investors’ funds under professional management – will be treated equally. Furthermore, it clarifies the respective role of issuers, trustees and the supervisory body (i.e. the Securities Commission). While maintaining the role of

trustees as a “front-line” supervisor of scheme issuers, the review proposes that issuers and trustees be separated and the Securities Commission approve trustees according to “fit and proper” entry requirements (*ex ante* monitoring). The Commission would also monitor the performance of trustees on an ongoing basis (*interim* monitoring) and collect information both periodically and occasionally, so that it can build a comprehensive information base. Finally, the Commission would have the power to deal with any trustee misconduct.

These reforms would take New Zealand well along the road towards best practice in OECD countries as set out in the White Paper on Governance of Collective Investment Schemes (OECD, 2005a). This concludes, *inter alia*, that all CISs promoted to the investing public should be required to operate through a recognised legal and regulatory framework. It also concludes that the regulatory authority should play a decisive role in creating the governance framework, including ensuring that firms offering one or more CISs have an appropriate governance structure.

Another key issue for CISs is transparency and disclosure to investors, particularly concerning fees, commissions and costs. CIS operators, distributors and financial advisors have a significant information advantage over the general public, who can have considerable difficulty in assessing whether fees are reasonable and comparing them across alternative investment products. Raising the financial understanding of investors (see below) would help to redress the information asymmetry, but full and transparent disclosure is needed to provide the competitive pressure that restrains the level of fees and expenses. The regulatory framework needs to ensure that a high degree of transparency occurs, preferably without direct regulation (OECD, 2005a). Development of industry standards for presentation of information that facilitates comparisons across products would also be helpful. The CIS review considers a number of options, including the possibility of requiring trust deeds to specify the types of fees that are, or could be, deducted and how they would be calculated. It is proposed that details of the actual fees paid will be specified in annual disclosure statements. However, if New Zealand wishes to move in line with OECD best practice on transparency and disclosure it may be necessary to go further by doing as Australia did in 2005 and promulgate regulations that standardise the description and calculation methods for fees and costs, so as to allow for easier comparability and understanding of the information in Product Disclosure Statements.<sup>15</sup>

### **Pension fund risk management and new bond types**

In addition to these regulatory matters, risk management of pension schemes has become an important subject in financial markets (OECD, 2005b). As institutional investors, pension funds’ investment strategies could have a significant impact on the conduct and stability of the financial system. This raises the question of how effectively financial markets may be able to develop the types of instruments that would help pension funds manage a variety of risks they encounter and to better match their assets and liabilities (Box 3.3).

The government would seem to be the obvious and perhaps the only logical issuer for certain types of paper, especially ultra-long dated, inflation-linked and longevity<sup>16</sup> bonds. However, the experience with inflation-indexed bonds has been quite mixed, with relatively few sovereign debt managers entirely satisfied with their experience (McCray, 2002). Longevity bonds are complex instruments and private sector issuance depends heavily on the availability of a reinsurance market willing to assume the ultimate risk.

### Box 3.3. Risk management considerations for pension schemes

Asset and liability management (ALM) – ensuring that liabilities are covered by suitable assets at all times – has become a central tenet in the world of finance. In pension schemes, until recently such risk management had received somewhat less attention. Instead, pension funds, defined-benefit schemes in particular, have often used excess returns above the risk-free rate as a measure of their performance. But superannuation funds need to not only generate a large enough pool of resources to cope with future liabilities but also to ensure that their asset structure matches the structure of future liabilities.

Adopting an ALM approach to risk management in pension schemes has a wide array of implications. In particular, it would require scheme providers/issuers to minimise any gap between asset and liability structures. Such a gap could emerge from a variety of risks:

- *Duration risk*: Pension funds are increasingly searching for long-dated bonds in order to match the long duration of their liabilities. Some OECD countries have already started issuing ultra-long-dated government bonds – both France and the United Kingdom issued 50-year bonds in 2005, while Switzerland has a long history of issuing bonds whose maturity is more than 30 years. This is in sharp contrast to New Zealand, whose longest-dated government bonds mature in 2017. This reflects both limited market interest in ultra-long bonds and the NZDMO's preference to maintain issuance into benchmark bonds to foster liquidity and consequently obtain more cost effective funding, particularly in a declining debt environment.
- *Inflation risk*: Pension funds also need to manage inflation risk, which could involve them holding such instruments as inflation-linked bonds against their inflation-protected pension benefits. The United Kingdom was the first major issuer of inflation-linked bonds in 1981, and many OECD countries including New Zealand have followed suit. However, the issue of inflation-linked bonds has been suspended in New Zealand since 1999, reflecting cost concerns arising from declining demand for the product, coupled with a preference to build liquidity in government benchmark bonds.
- *Longevity risk*: Pension funds are encountering mounting payments as a result of both the ageing population and increasing longevity. Such a risk can be hedged in financial markets with longevity bonds whose returns are linked to future longevity. For example, this could operate as a zero-coupon amortising bond where the coupon payout was discounted by the share of the population aged, say, 65 years when the bond was issued that had survived to the coupon date (Blommestein, 2006). The issuance of longevity bonds is still in its early stage internationally, though it has the potential to encourage the development of annuities markets, where the re-insurance industry will play an important role.
- *Interest rate risk*: Most fundamentally, interest rate risk can create a substantial mismatch on the balance sheet of pension funds, especially for defined-benefit schemes. Because market rates are often used as a discount factor, the present value of future liabilities can increase sharply as market rates decline. Across OECD countries, it has become common to use high-grade corporate bond yields as a discount rate. As a result, superannuation funds' demand for corporate bonds has risen, and in order to meet the demand from these institutional investors, deep and liquid corporate bond markets as well as sovereign bond markets, have become an important part of financial market structure.
- *Liquidity risk*: The decline in the funding ratio also raised awareness that pension funds should remain fully funded against market adversity. It has become more common in OECD countries to implement minimum funding requirements. In the United Kingdom, the scheme-specific funding standard was introduced by the Pensions Act 2004, and the EU pension directive requires pension funds to maintain at least a 105 per cent funding ratio.

Indeed, for a number of reasons, the likelihood of a private market developing is rather small, despite tentative forays<sup>17</sup> (Blommestein, 2006). Government-issued longevity bonds would shift additional longevity risk onto the public purse, and New Zealand is already heavily exposed to such risks through the public pension scheme (see Chapter 2) and also, potentially, other spending programmes such as health and elderly care. Furthermore, such new types of government bonds could significantly raise the cost of government debt management, which ultimately falls on the taxpayer. Overall, a cautious approach should be taken to the possibility of developing these more sophisticated financial instruments.

### **Financial literacy and education**

As the range of available financial instruments has become more sophisticated, the financial literacy levels required by individuals in order to make optimal decisions about saving and borrowing have risen considerably. Surveys indicate that not only do individuals often fail to understand relatively basic financial concepts, they also overestimate their own level of financial literacy (OECD, 2005c). A survey conducted towards the end of 2005 found that, overall, New Zealanders have a reasonable level of personal financial knowledge, although there was a strong correlation between financial knowledge and socio-economic status (ANZ and Retirement Commission, 2006). Nevertheless, it found there was some confusion over New Zealand Superannuation (with a significant number of respondents believing that it is income and/or asset tested). Understanding of compound interest and debt consolidation was relatively weak, some basic financial terms were not well understood, and there was a mixed degree of understanding of investment strategies, particularly long-term returns from the stock market and the relevance of compound interest.

The NZ government has already taken important steps to improve financial education. The Retirement Commission, through its web-site [www.sorted.org.nz](http://www.sorted.org.nz), provides an essential source of information for New Zealanders as they prepare for retirement. A project to integrate financial education into the school curriculum is underway and is expected to be ready for implementation across all schools in 2009. Indeed, efforts to improve financial literacy at all ages constitute a low-cost, no-regrets contribution to deepening financial markets by making it easier for people to become confident investors who are able to use financial markets efficiently to optimise their lifetime paths of income and consumption.

## **Conclusions and policy recommendations**

New Zealand's financial markets are relatively small, and the country would be better placed to expand at a faster rate of growth if they were deeper. The main reason why they are not is the lack of domestic savings, most notably through private pension funds, which supply a considerable amount of capital in other countries. While New Zealand is able to access world capital markets to meet the gap between savings and investment, much of these flows are short-term portfolio investments. These have been channelled primarily through the banking sector, whose lending is, in turn, becoming increasingly concentrated on households and the agriculture sector. In contrast, little capital is raised directly through marketable shares and bonds, channels which play an important role in shifting capital among businesses and sectors, and responding to new, often technology-driven, opportunities. The government has taken careful steps to encourage the development of venture-capital and start-up financing. But a considerable amount of the net worth of the business sector is "locked-up" in its present ownership. In the case of trusts and co-



operatives, that is a matter for the owners to address as they see fit. But central and local government ownership could be scaled back, especially in sectors where there is well-established competition, thereby exposing that capital to the discipline of market scrutiny and allocation.

It is difficult to point to major obstacles in financial markets themselves that could explain their shallowness. Indeed, New Zealand outscores all other OECD countries on indicators for financial market regulation. Nonetheless, there are some areas where adjustments could be made to ensure that New Zealand's regulatory structure is well designed to respond to the dynamic nature of financial market innovation. This will be especially important with the expected expansion of private pension funds in coming years.

Overall, efforts to deepen the country's capital markets require actions in related domains, most notably to create a more favourable environment for savings and accumulation of financial assets (see Chapter 2 and Chapter 4). Nonetheless, some specific changes affecting financial markets directly would be helpful (Box 3.4).

#### Box 3.4. Policy recommendations for deepening financial markets

- Examine whether there is a sufficient benchmark yield curve and consider whether increased government bond issuance may be warranted to facilitate the development of a more extensive corporate bond market.
- Assess the net impact of removing opportunities for banks and firms to avoid paying the Approved Issuer Levy on interest payments, so as to reduce the incentive to issue bonds offshore rather than domestically.
- Reduce central and local government ownership in the business sector, so as to expose the capital in those businesses to market judgments about its most productive use.
- Ensure that the current review of financial products and providers results in a streamlined regulatory framework that requires firms offering collective investment instruments to have an appropriate governance structure with the requirements of trustees being sufficiently stringent to make sure that they are capable of discharging their duties.
- Adopt a more rigorous approach to disclosure requirements for fees and expenses for collective investment instruments so as to enhance transparency and allow for easier comparability across products.
- Continue efforts to improve financial literacy and integrate financial education into the school curriculum.

#### Notes

1. The residential mortgage to non-financial corporate lending ratio rose from 1.49 in 2000 to 1.64 in 2005.
2. These are small landholdings, usually on the edge of urban areas, where a semi-rural lifestyle is a major motivating factor for living there, although some agricultural activity may be pursued. The Valuation Roll in 2004 recorded around 140 000 such blocks, covering in total, more than 750 000 ha, although this included sections both with and without a house. Further details can be found on the website of the Ministry of Agriculture ([www.maf.govt.nz/statistics/primaryindustries/smallholdings/discussion.htm](http://www.maf.govt.nz/statistics/primaryindustries/smallholdings/discussion.htm)).



3. This review follows earlier work on implementation of the Takeovers Code, Securities Markets legislation and changes to the Securities Act, including rules concerning insider trading and market manipulation.
4. In contrast, sovereign debt issuers in many OECD countries have supporting domestic capital markets as one of their policy objectives (Kreiner, 2002).
5. One possibility could be to match ongoing debt issuance to maintain market liquidity with offsetting ad hoc contributions to the New Zealand Superannuation Fund (or one of the Crown Financial Institutions), where a strong governance structure has already been established for managing public ownership of financial assets.
6. Debt instruments make it more difficult to share risks under poor economic performance; the return is fixed irrespective of economic cyclicality. Equity-type instruments, such as FDI and portfolio equity investment, make risk-sharing easier by allowing for lower returns during cyclical downturns.
7. This result reflects the close alignment of the incentives of firms and of lenders.
8. Banks have also shifted towards greater securitisation, which allows them to exploit their access to private information about the borrower and the project, while separating the origination and funding of credit from the allocation of credit risk. Securitisation facilitates a greater spreading of the risk.
9. The NZVIF invests on a 1:2 ratio in the VIF funds, which must be a minimum of NZD 30 million (inclusive of VIF). It invests in the funds on the same terms as private investors, except that, first, other investors in each VIF fund are provided with an option that is exercisable up to the end of the fifth year of the Fund to buy out the NZVIF investment on the basis of capital plus interest only (i.e. other investors can access any upside above this amount); and, second, the VIF fund must operate within the investing profile across seed, start-up and early expansion phases as set out by NZVIF. It participates in investor governance decisions on the same terms as private investors, with the same voting rights. Investor governance arrangements reflect current market practice.
10. The Seed Co-investment Fund (SCIF) will invest alongside selected private investor groups ("approved investors") as a passive co-investor, providing up to 50% in any single eligible investment. Investments would be limited to a maximum single round of initial investment of NZD 250 000 in any one company or group of companies. It will operate for 12 years, with an expected investment period of five to six years.
11. In New Zealand, this is referred to as the "boat, bach and BMW" ambitions of business owners, who are supposedly uninterested in generating further business income once they have acquired these possessions (speeches by the Minister of Finance [www.beehive.govt.nz/](http://www.beehive.govt.nz/) and by the Governor of the Reserve Bank [www.rbnz.govt.nz/speeches/](http://www.rbnz.govt.nz/speeches/)).
12. The more typical concern is "home bias", where pension funds under-invest in foreign assets and thereby fail to maximise their risk-adjusted rate of return (Reisen, 1998).
13. Potential government-owned candidates for divestment could include, for example: Mighty River Power, Meridian Energy, Genesis, Solid Energy, Landcorp Farming, Kiwibank, and the government's shareholding in Air New Zealand.
14. Alternatively, local management may press the case for development of the local market in the process of intra-company bidding for new resources.
15. Product Disclosure Statements for superannuation and managed investment products in Australia are required to include the following components: a) a consumer advisory warning box, which alerts consumers to the importance of value for money and the compounding value of fees and costs and their impact over time on end benefits; b) a fees and costs template, with a standardised fee table; c) an additional explanation of fees and costs; and d) an example of annual fees and costs, which will provides an illustrative example of fees and costs in a balanced investment option for a specified account balance and level of contributions. The regulations also introduce the concept of an 'Indirect Cost Ratio' to provide a consistent methodology for the calculation of 'management costs' that are not deducted directly from a member's account.
16. In this chapter, longevity refers to the cohort life-expectancy risk discussed in Chapter 2.
17. The most well-known long-term longevity bond is the BNP/Paribas/PartnerRe/EIB bond issued by the European Investment Bank in 2003.

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## Chapter 4

# Toward a more efficient taxation system

*After the radical reforms undertaken in the 1980s, the NZ tax system has long been regarded as one of most efficient within the OECD, and is based on a comprehensive income approach. Looking forward, the country will require a tax regime that helps the economy to continue raising living standards, supports savings and investment and copes with emerging pressures such as increasing geographic mobility of labour and capital. In this context, it will be important to have in place a clear long-term direction for the tax system to guide reforms. There are at least two broad options that are worth considering: adapting the system within a comprehensive income approach or adopting a dual income tax system. Future changes to the tax system need to be consistent with the approach ultimately adopted. In any case, a number of limitations of current tax bases will need to be tackled.*

The design of the tax system is crucial as taxation impinges on most aspects of economic activity. Having a well-functioning tax regime is of particular importance for New Zealand as the country needs to compensate for its small size and remoteness. At the same time, only revenues that are needed to fund worthwhile programmes should be raised and they have to be levied as efficiently as possible. Pressures to spend the comfortable fiscal surplus have been mounting. The government has announced the forthcoming Budget will include changes to business taxes to take effect from 1 April 2008. At the current juncture, large tax cuts beyond those already planned would be counter-productive as they would inject further stimulus in the economy (see Chapter 1).

Looking forward, the tax regime needs to cope with several long-term challenges. Potential detrimental effects of relatively high taxes on savings and investment are a source of concern (see Chapter 1). Demographic changes associated with population ageing will increase fiscal pressures, particularly in the areas of health and superannuation expenditure (see Chapter 2). Globalisation and the associated increase in mobility of labour, capital and profits will continue to place pressure on ensuring that New Zealand's tax policies allow the economy to attract and retain the factors the country needs.

This chapter analyses the current taxation system and proposes changes that would make it more suitable to future needs. It starts from the position that New Zealand's tax system deviates relatively little from a comprehensive model. However, other tax approaches that tax capital income at a lower rate may be attractive, given the high deadweight costs of capital taxation in a dynamic framework. The chapter first underlines the benefits that would flow from a coherent and strategic long-term direction for the tax system. Two possible options are then discussed in turn: adapting the current model within the comprehensive income framework or adopting a dual income approach. Extending the latter approach to an extreme case where capital is not taxed at all would move the system toward an expenditure-based regime. The chapter then analyses a series of measures that would minimise the shortcomings of the current system. The last section summarises policy recommendations.

## The present tax system

The NZ tax system (Box 4.1) has been described as one of the simplest amongst the OECD countries (Leibfritz *et al.*, 1997; OECD, 2000), although policy changes since 2000 have added complexity. The tax burden is relatively low compared to most Western European countries but higher than, for example, in Australia, Japan, Canada and the United States (Figure 4.1). It has increased steadily since the beginning of the decade. Tax revenues rose from 34.4% of GDP in 2000 to 35.6% in 2004.<sup>1</sup> This stems from growing personal and corporate income tax flows and has come about in spite of stable statutory rates of corporate and personal income taxes over the period. Higher tax ratios reflect stronger economic growth, which has boosted both firms' profitability and household incomes, as

### Box 4.1. Main features of the NZ tax system

#### Personal income tax

Personal income tax is progressive with three brackets and non inflation-indexed thresholds that have not changed for seven years (Table 4.1), during which time household incomes have risen by about 30%.

Table 4.1. Personal income tax brackets

Taxable income NZD	Percentage of the population (18 and older)	2006/07 statutory personal income tax rate %	2006/07 effective marginal rate %
0-9 500			15
9 501-38 000	75	19.5	21
38 001-60 000	13	33	33
Over 60 000	12	39	39

Note: NZD 38 000 is close to 0.9 times the average wage and NZD 60 000 to 1.5 times the average wage.

A low-income “rebate” of 4.5 cents per dollar applies to the first NZD 9 500 of income. For income between NZD 9 500 and NZD 38 000, the rebate is gradually withdrawn, resulting in an effective marginal tax rate of 21% over that range. New Zealand has no local income tax.

The Working for Families package provides income support to almost all families with household incomes less than NZD 70 000 a year, many families with annual incomes up to NZD 100 000 and some larger families on higher incomes.

#### Social security contributions and payroll tax

New Zealand does not have social security contributions or payroll tax, except for the Accident Compensation Corporation levy on employers that is set at NZD 1.30 per NZD 100 of payroll, on average. Levies are risk-adjusted across different industries.

#### Corporate tax

There is a single tax rate of 33% for resident and non-resident firms. Trusts are also taxed at 33%. From the point of view of corporate funding, the neutrality of the system is enhanced by an imputation system.

#### Cross-border tax treatment

Income earned by a foreign branch of a NZ company is consolidated with that earned by the parent company and taxed in New Zealand. In the case of income earned abroad by a subsidiary, the system distinguishes between controlled foreign investment (Controlled Foreign Company or CFC) and portfolio investments (Foreign Investment Funds or FIF). These regimes tax the income that residents accumulate in foreign entities that are resident in any other country. Under the FIF rules residents are taxed on a deemed return of 5% of the value of the offshore shares (the “fair dividend rate”). The FIF regime does not apply to most investments in Australian listed companies. Under the CFC rules individuals and corporations are subject to tax on their pro-rata share of the annual total income of CFCs in which they own an income interest of 10% or more. The CFC regime does not apply to the so-called “grey-list” countries (Australia, Canada, Germany, Japan, Norway, Spain, the United Kingdom and the United States). Investors in foreign companies resident in these countries pay tax only on dividends. The CFC regime and the grey list are currently under review.

Income derived from New Zealand is subject to tax. Non-residents are essentially taxed on the same basis as residents, subject to any limitation imposed by virtue of a double tax agreement.

#### Box 4.1. Main features of the NZ tax system (cont.)

##### Capital gains tax

There are no capital gains taxes as such in New Zealand. However, income tax is applied on capital gains if they are part of the taxpayer's "usual activity". For instance, capital profits from the sale of land are brought within the income tax net in a variety of circumstances. Resident companies are taxed on all gains derived from certain types of financial arrangements and from certain property transactions. These gains are taxed at the standard corporate tax rate.

##### Consumption tax

New Zealand has an almost perfectly neutral value added tax system, owing to the single uniform Goods and Services Tax (GST) rate of 12.5% and the virtually complete absence of exemptions. Since 2005 a zero-rating system has been introduced for financial services. Housing services (e.g. renting a residential dwelling) are exempt from GST, as well as the supply of fine metals, penalty interest and donated goods and services sold by non-profit bodies. In October 2006, the government proposed to extend the exemption to registered owners of holiday homes, home-stays, farm-stays and serviced apartments.

##### Property tax

The only local taxes on land are the so-called "rates" charged by local and regional authorities on residential and commercial properties. Rates vary by location and are based on property use (i.e. residential or commercial) and on an annual assessment of the property's value in relation to current market values. Each local authority, after consulting with their community, can decide which basis to use or can use a mix of these bases. The Local Government Rating Act 2002 provides a number of options for setting rates: general rates (all ratepayers pay for all or part of a particular council service and what each ratepayer pays depends on the assessed value of their property relative to the value of other properties), targeted rates (the cost of a service or function is met by a particular group of ratepayers) and/or uniform annual general charges (flat dollar charge per property, where all properties pay the same for a delivered service regardless of the value of the property). A combination of these rates can also be used. The Rates Rebate Scheme was established in 1973 to provide a subsidy to low-income homeowners on the cost of their rates. An inquiry on local rating is underway with the aim to improve local funding.

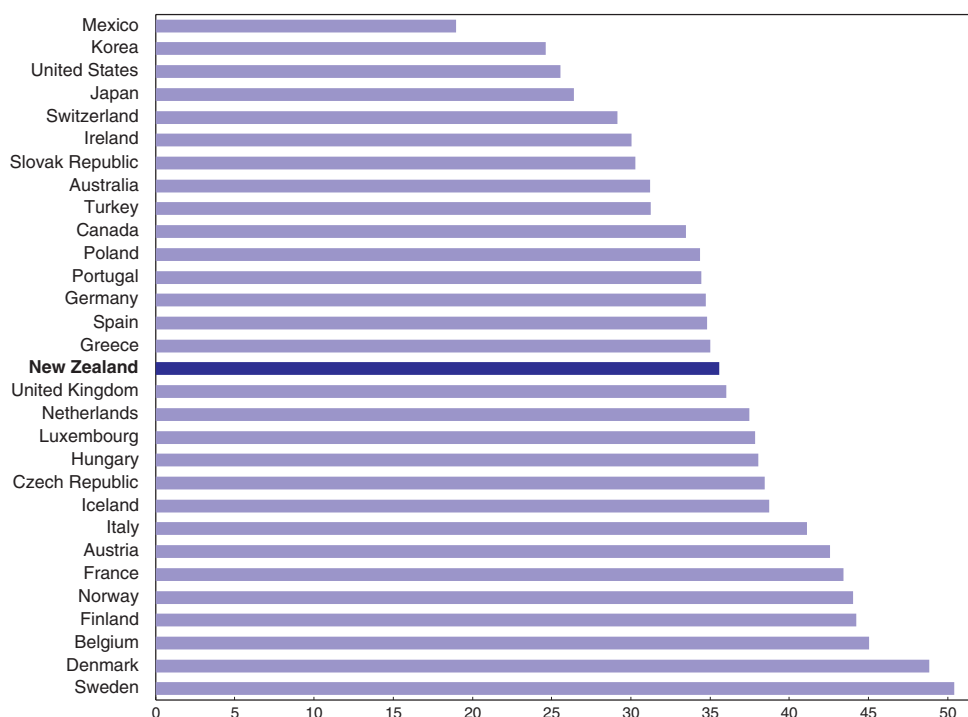
##### Inheritance tax and other

New Zealand does not apply separate inheritance tax or stamp duties. The rate of gift duty depends on the value of the gift. This duty is in the process of being modified.

well as bracket creep, whereby taxpayers have moved into higher brackets as their nominal incomes have risen. Fiscal drag may thus have strengthened automatic stabilisation.

New Zealand raises over 60% of its tax revenues from taxation levied on incomes and profits (Figure 4.2).<sup>2</sup> This proportion is higher than anywhere else in the OECD, but this reflects the absence of payroll and social security taxes.<sup>3</sup> While its individual income tax take is relatively high compared to the OECD, its taxation on income and payroll is average once social security contributions and payroll taxes are taken into account. Indeed the total tax wedge on labour in New Zealand is one of the lowest in the OECD (OECD, 2007). The top personal tax rate of 39% is currently one of the lowest in the world, but the top rate is applied from a comparatively low level of incomes – above 1.5 times the average wage in

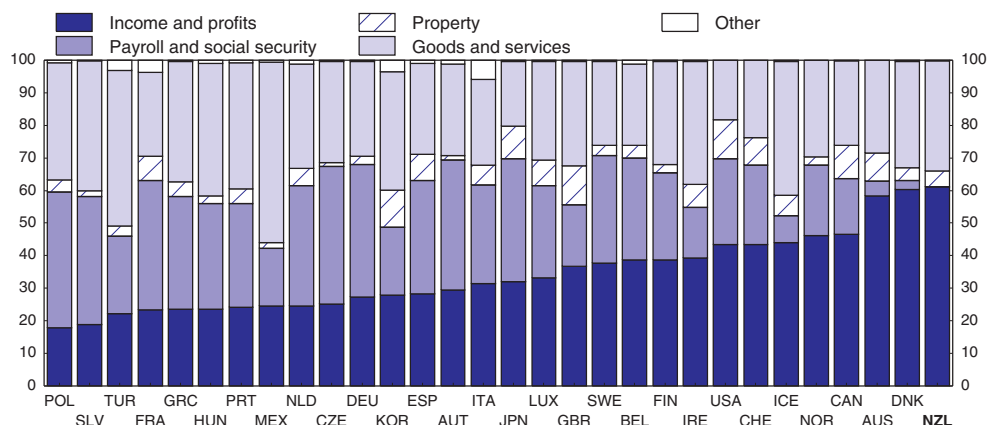
Figure 4.1. **Total tax revenue**  
Per cent of GDP, 2004



Source: OECD (2006), Revenue Statistics 1965-2005, 2006 Edition, OECD Paris.

StatLink <http://dx.doi.org/10.1787/008050882388>

Figure 4.2. **Tax mix in OECD countries**  
Per cent of total tax revenue, 2004



Source: OECD (2006), Revenue Statistics 1965-2005, 2006 Edition, OECD Paris; <http://dx.doi.org/10.1787/366725334503>.

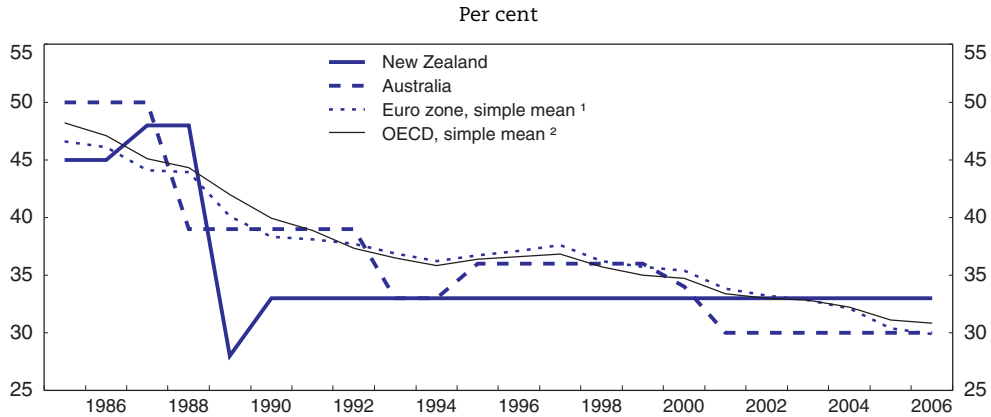
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New Zealand compared with 2.4 times the average wage, on average, in OECD countries. Currently, 12% of the population are in the top tax bracket.

New Zealand's advantage of a relatively low corporate rate has eroded over time (Figure 4.3). Starting from a position where the country benefited from a significant tax advantage, the trend decline in the statutory rates in many OECD countries has led to a situation where the NZ rate is now higher than Australia's, and, more generally, several




Figure 4.3. Trends in statutory corporate tax rates



1. Luxembourg excluded.

2. Using 17 OECD countries; New Zealand excluded.

Source: Institute for Fiscal Studies; IRD (2005), Briefing for Incoming Minister; OECD, tax database.

StatLink  <http://dx.doi.org/10.1787/008154586864>

percentage points above the OECD average. The differential would be even more pronounced when compared to small OECD countries or to the preferential rates applied by many OECD countries to small firms.

The remaining fiscal revenue is derived from indirect taxation – including the goods and services tax, and excise and customs duties – and local property taxes. Value-added taxes are levied more efficiently in New Zealand than in other OECD countries, as they are raised through a single uniform GST rate of 12.5% with very few exemptions. Property taxes (“rates”) provide the major source of revenue for funding local government expenditure (around 56% of operating revenue in the year ended June 2005). The average increase of rates from 2006 to 2016 per household is projected to be around 60% (from around NZD 2 250 to NZD 3 600 on an annual basis), including inflation assumptions (Ministry for Local Government, 2007). The projected increases are strongly influenced by the significant investment many Councils expect to make in network and community infrastructure and will vary over different local authorities and over different kinds of ratepayers, depending on the rating policies adopted by each Council.

The effectiveness of the tax system collection is reported to be high by OECD standards. It is estimated that the Inland Revenue Department collects some NZD 123 for every NZD 1 spent (OECD, 2006b). This places New Zealand at 8th amongst the OECD countries.

## A long term direction for tax reform

The NZ government has adopted a gradual approach to reforming the tax system whereby improving business and international taxation is considered the first priority. It has announced that lower personal income taxes could be a subsequent step.

Major changes to tax systems that require an increase in some taxes to contain the fiscal cost may best be developed and implemented within a long-term strategy. First, this ensures all the proposed changes are consistent and will result in a more coherent tax system. Second, it makes the changes easier for the general public to accept, since it would be possible to offset the losses that specific groups may incur (Owens, 2005). Third, it allows the government to set out clearly its ultimate objectives, helping taxpayers to adapt to

planned changes. In this context, the designers of an optimal tax strategy should seek to find an appropriate balance between improving the efficiency of the whole system and, depending on the country's social preferences, satisfying some equity criteria (Box 4.2). Identifying and developing the most appropriate long-term strategy will take time. Any tax changes in the interim need to be carefully designed so as to minimise the risk that they would be inconsistent with the approach ultimately adopted.

In the case of New Zealand, growth-enhancing tax reforms could be designed without compromising long-run fiscal sustainability. The amplitude of potential tax cuts has been publicly debated, largely in the context of a comfortable public surplus. But room for major tax cuts beyond current plans is limited. *First*, it would be inappropriate at the current juncture to inject further fiscal stimulus in the economy (see Chapter 1). *Second*, fiscal pressures are mounting and will need to be addressed. Significant reforms should be undertaken and those are rarely revenue-neutral as losers often need to be compensated for the losses they incur. At the same time, it is important that the cost of reforms do not endanger the country's ability to manage future health and ageing-related spending. This could be done either by making tax reforms within a close-to-neutral fiscal envelope or finding offsetting reductions in public spending.

A higher GST rate would make room for income tax cuts. The rate of GST is low in New Zealand by international norms (Figure 4.4), the standard rate of VAT in OECD countries (other than the United States, where there is none) varying from 5% in Japan to 25% in some Nordic countries and Hungary. However, New Zealand has the broadest base of all OECD countries, as measured by the C-efficiency ratio<sup>4</sup> (OECD, 2006d). As a result, the gap between New Zealand's effective consumption tax rate and that of other OECD countries is somewhat smaller than the comparison of standard rates might suggest. NZ Treasury ready reckoners suggest that a moderate increase in the GST rate would bring substantial additional revenues: these could be used to finance other measures to improve the efficiency of the tax system (Table 4.2). For example, lifting the GST rate from 12.5% to 15% would more than offset the fiscal cost of cutting the corporate rate to the Australian level and of flattening the personal income tax schedule by reducing the top rate to 33%.

In New Zealand, the GST is an efficient, low, flat rate tax with few exemptions. A further shift from income to consumption taxation would increase the efficiency of the tax system. In addition, a shift toward consumption taxation increases consumption possibilities over the life cycle, by lowering distortions on savings decisions. Indeed, as income taxes are generally levied on a base that includes savings and income from savings, a revenue-neutral move towards consumption tax would make taxation more neutral between present and future consumption.<sup>5</sup> Such a shift would have little effect on the total amount of tax paid by an average worker but would reduce the marginal effective tax rate and thereby increase incentives to work for some people, because direct taxes are generally progressive while indirect taxes are close to proportional (Heady, 2006).

Raising the GST tax rate from 12.5 to 15% would probably have only very modest redistribution effects, as the increase in the amount of tax paid (relative to total consumption) would be of the same order of magnitude for persons in the higher income range as for persons in other bands (Table 4.3). The rise in GST rate would, nonetheless, display some regressivity if the amount of tax paid is expressed in terms of net income rather than total expenditure. Indeed, analysis from the NZ Treasury indicates that such a

#### Box 4.2. Efficiency, equity and simplicity of tax systems

It is important to have criteria against which tax systems can be assessed. Usually, assuming a certain level of revenue that needs to be raised, tax policy seeks to strike the best possible balance between efficiency, equity and simplicity. Obviously, the weights on each of these criteria will differ according to the country's social choices and specificity. In addition to these criteria, consideration should also be given to transition costs.

##### Efficiency

So long as taxation affects incentives, it distorts economic behaviour (savings, investment, consumption and labour supply) in the short and the long term. The tax system should minimise discrimination in favour of, or against, any particular economic choices, except when there are clear externalities. In practice, this means building tax systems substantially around broad bases and minimising differences between tax rates. The actual effects of higher taxes depend on how sensitive labour supply and personal savings are to changes in the tax rate, which may vary with income and over time, as well as between countries. Understanding the magnitude and nature of the deadweight losses (sometimes called excess burden) is important for assessing the true cost of increased government spending and for shaping the appropriate structure of taxes.

Deadweight losses rise with the square of the tax rate (Creedy, 2003). Diewert and Lawrence (1994) found that the deadweight costs associated with labour taxation (primarily taxation on the income of wage earners and the self-employed) in New Zealand were around 18% for the marginal dollar of income tax revenue raised and around 14% of the marginal dollar of consumption tax revenue raised. More recent estimates of deadweight losses are higher (Bates, 2001; Feldstein, 2005). A cost-benefit guide used by the Treasury for new spending recommends a rate of 20% as a default deadweight loss value in the absence of an evidence-based value (NZ Treasury, 2005). Although these costs are not insignificant, they are still moderate compared with estimates of deadweight costs found for other countries, which are typically in the range of 10 to 100% (Diewert and Lawrence, 1994; Leibfritz *et al.*, 1997).

However, most of these estimates have been made using static analysis, i.e. the analysis is limited to estimating the current impact of a change in tax. Most of the time, revenue estimates are also implicitly constrained to assume no change in GDP, thereby ignoring any feedback effect of a change in taxation on economic growth. A number of economic studies have questioned these simplistic assumptions and have suggested the assessment should be done from a life-cycle and a general-equilibrium perspective (Feldstein, 2006). In particular, it is important to incorporate the impact of tax on human capital formation (Driffil and Rosen, 1983). Using these concepts, taxes on capital are found to be more distortionary than those on consumption (Baylor and Beauséjour, 2004) or on labour (Feldstein, 2006).

##### Equity

The distributional impact of taxes across the population raises issues of equity to which most countries give some weight, even if it entails costs in terms of economic efficiency. Tax systems usually aim to achieve two forms of equity.

Horizontal equity implies that taxpayers in an equal situation should be taxed in an equal manner, the main difficulty being to define what constitutes an "equal situation". From a practical perspective, an example could be that the tax on a given level of total income should be the same regardless of how this income is generated, hence that one should rely on a comprehensive definition of income for tax purposes. A corollary would be that tax allowances and tax credits that are not directly linked to the generation of that income would not be compatible with the objective of horizontal equity. However, if equity is evaluated in a dynamic framework (*e.g.* ensuring generational equity), then expenditure taxation can achieve horizontal equity, whereas a comprehensive income approach does not.

#### Box 4.2. Efficiency, equity and simplicity of tax systems (cont.)

Vertical equity is a very normative concept, whose definition can differ from one user to another. According to some, the objective of vertical equity is that taxpayers in better circumstances should bear a larger part of the tax burden as a proportion of their income. This implies that the distribution of after-tax income should be narrower than the distribution of before-tax income, and that the average tax rate should be increasing with income. Others would interpret vertical equity as corresponding to a proportional income tax (i.e. a flat tax rate). Again, in practice the interpretation of this definition depends on the extent to which countries want to diminish income variation and whether the criteria should be applied to income earned in a specific period or to lifetime income.

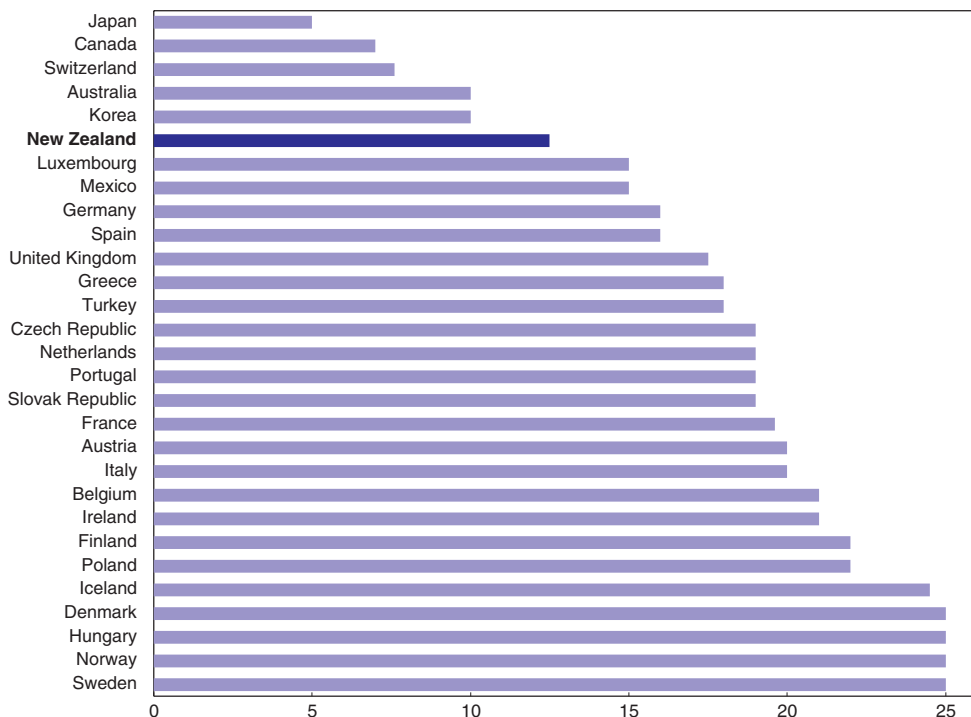
#### Simplicity

The practical issues of enforceability of tax rules and costs arising from compliance are important considerations. Those are both affected by, and have implications for, the efficiency and public perceptions of the fairness of tax systems. In particular, the tax system quickly gets more complicated when it is also used to redistribute income and as a vehicle for delivering benefits to specific groups or to encourage certain behaviour. Complexity also favours tax planning, which will have deadweight losses for the economy as a whole.

Source: OECD (2006c), NZ Treasury (2005).

Figure 4.4. Standard VAT rates

As at 1st January 2005



Source: OECD (2006), *Consumption Tax Trends*, 2006 Edition, OECD, Paris.


StatLink  <http://dx.doi.org/10.1787/008166867580>

Table 4.2. **Fiscal costs of selected tax changes**<sup>1</sup>

	Measures	Full-year effect NZD million
Increase the rate of GST	Increase from 12.5 to 15%	2 225.0
Increase in environment taxes	Increase total environment taxes by 50%	511.0
	10 cents per litre increase in excise duty on petrol	50.0
Decrease in personal income tax	One-thousand dollar increase in all brackets	-175.0
	One percentage point decrease in all rates	-790.0
	Lower top rate from 39% to 33%	-780.0
Decrease statutory corporate rate <sup>2</sup>	Decrease from 33% to 30%	-660.0
Using the "operating allowance" for tax initiatives <sup>3</sup>	Allowance for the 2008/09 fiscal year	-2 000.0

- Such estimates give only a rough approximation of the fiscal costs as they do not incorporate second-round effect of tax changes on employment, household disposable income and economic growth.
- This includes the effect on company tax revenue from the company tax rate change and the imputation credits offset if personal rates are not modified when the company rate is.
- Each year of the fiscal forecasts includes an allowance for new operating initiatives, which can be utilised for both spending and tax initiatives. However, it has tended to be dominated by new spending over recent years.

Source: OECD calculations using impacts from the NZ Treasury ready reckoner, Half Year Economic and Fiscal Update 2006 and OECD Revenue Statistics data.

Table 4.3. **Impact of an increase in GST from 12.5 to 15%**  
by income group of households, NZD

	Additional amount of tax paid per week by income bracket		
	Under 38 000	Between 38 000 and 60 000	Above 60 000
Food	2.2	3.3	5.1
Housing (less rent and mortgage)	1.0	1.9	2.8
Household operation	1.8	2.5	3.9
Apparel	0.3	0.7	1.3
Transportation	1.8	3.3	5.4
Other goods	1.2	2.2	3.8
Other services (excluding financial services)	1.5	2.2	4.6
Total (excluding rent and mortgage)	9.8	16.0	27.0
Total (as a percentage of total expenditure)	2.0	2.0	2.0

Source: OECD calculations using NZ statistics on average weekly expenditure.

rise in GST would increase the percentage of net income subject to GST from 22% to 26% for the lower income decile and only from 6% to 7% for the top income decile. But this regressivity would be reduced if the analysis was done on a lifetime approach.

A number of countries have dealt with this perceived regressivity by introducing multiple rate schedules, with lower rates being applied to basic necessities such as food and clothing.<sup>6</sup> However, this option is suboptimal, as it would increase the complexity and lower the neutrality of the current GST. It would be preferable to maintain the unique rate and use the revenues generated by the GST hike to provide, for example, a modest payable lump sum per capita credit on personal tax.<sup>7</sup> Another alternative could be to provide additional social benefits to lower-income groups. However, such measures would need to be designed properly, so that they do not significantly worsen incentives to work.

## Two broad approaches for tax reform

This section discusses two possible strategic approaches to addressing long term challenges facing the tax system and help to raise living standards. Each alternative has merits and drawbacks and involves difficult trade-offs between the criteria of efficiency,

equity, simplicity, and transition costs. The ultimate choice of tax system is also influenced to some extent by the total level of spending required for policy initiatives. This section also includes a discussion of pure expenditure taxation, which is untested in practice but contains useful insights to consider when designing tax policy in a long term context. It will be important to assess which option is best suited to New Zealand's specific long-term needs.

### **First option: adapting the system within a comprehensive income approach**

The NZ regime was initially designed as a pure comprehensive system with broad tax bases, flat and relatively low tax rates. All or most (cash) income<sup>8</sup> less deductions (from either capital or wage income) were taxed according to the same progressive rate schedule. Since the beginning of the decade, however, some complications have been grafted onto the system. The introduction of the 39% top personal tax rate put an end to the existing alignment of the top personal tax rate with the trust and company rates. The tax system has also increasingly been used for other policy objectives. It has been utilised to deliver assistance to families through the Working for Families package. Moreover, preferential tax treatments to certain sectors or saving vehicles have been introduced.

Responding to long-term pressures would require lowering rates, flattening the tax schedule and aligning tax rates. This would enhance the efficiency and the simplicity of the system. Such a system could come close to achieving static efficiency, while trying to ensure a fair distribution of the tax burden. In a pure comprehensive model, the lack of income-shifting possibilities would also reduce administrative costs. In practice, no existing system taxes all types of income in an equal manner so that there are always possibilities for arbitrage behaviour. But, the NZ system has attempted to minimise these distortions by maintaining rates as low as possible by taxing a broad base. The further a country's tax regime departs from the "broad base, low tax" principle, the higher arbitrage behaviour and administration costs there will be.

The comprehensive income approach is the basic model followed by many OECD countries, but it encompasses a number of limitations. *First*, for those whose savings comes from earned income, tax is first paid on income set aside as savings and then on returns from that savings. As a result, when tax rates are high, the system is less likely to achieve dynamic efficiency than other regimes that levy less tax on savings. When tax rates are low, the gains of having a lower static deadweight loss (compared to other systems that tax labour more heavily) need to be evaluated against the dynamic efficiency losses stemming from the taxation on savings. *Second*, a number of implementation issues arise with respect to the taxation of capital income, for instance regarding the valuation of capital gains for taxation purposes.

### **Second option: moving to a dual income tax system**

The objective of raising living standards in the long run may also be served by more fundamental changes to the tax system. By treating all income in a given period in the same way regardless of its source, a comprehensive income tax system taxes consumption in the future more heavily than consumption today. In contrast, a dual income tax (DIT) system taxes labour income at a higher rate than capital income and thus treats consumption in different periods more neutrally. DIT systems, combining progressive taxation of labour income with a fairly low flat tax on corporate and capital income, were introduced in Finland, Norway, Sweden and, to a lesser extent, Denmark in the early 1990s.

A basic principle of the dual income tax is neutrality across all forms of capital income. Capital gains are taxed and taxable business profits correspond as closely as possible to true economic profits. This implies that accelerated depreciation and other special deductions from the business income tax base have to be avoided. When the dual income tax was introduced in the Nordic countries, the business income tax base was broadened considerably. Moreover, an ideal dual income tax would tax the returns to pension saving and housing investment at the general capital income tax rate. In practice, the Nordic countries have not managed to go that far, but Denmark and Sweden have imposed flat taxes on the return to pension savings at roughly half the level of the ordinary capital income tax rate. They have also tried to make up for missing taxes on imputed rents via a property tax on owner-occupied housing, but the latter has recently been cut in Sweden.

In terms of efficiency, a move from a comprehensive income tax to a dual income tax would reduce inter-temporal efficiency losses and increase lifetime consumption possibilities. By generally allowing lower taxes on capital income, DIT systems also reduce the required rate of return on capital for investment projects. It is also easier to include all forms of capital income in the tax base. If, for some reason, some types of capital income are excluded from the tax base, the implied distortions would be lower because tax rates on other forms of capital income are relatively low. DIT systems may also inhibit the flow of capital offshore, a consideration that is likely to become more important with increased mobility of capital tax bases.<sup>9, 10</sup> Lastly, there is less incentive to engage in seeking tax breaks for particular forms of business income.

However, the net efficiency gains of moving to a DIT system depend on how the revenue gap created by lowering the tax rate on capital is financed. It could be offset by reductions in government spending, raising the GST rate, increasing taxes on earned income or some combination of these alternatives. The net efficiency gains would depend on the scale of deadweight losses associated with each tax as its rate changes, as well as the extent to which different taxes affect the international mobility of capital and labour. This is ultimately an empirical question.

DIT systems deliver horizontal equity when evaluated on the basis of lifetime income in a way that would not be achieved if only one income period is considered, as taxpayers with a different mix of capital and labour income are taxed differently. The introduction of a lower proportional tax rate on capital income would diminish the tax code's vertical equity as well, because income from capital tends to be concentrated in the upper income brackets. But as DIT systems allow for a progressive schedule to be applied on labour income, a degree of income redistribution could still be delivered through the tax system. However, this would imply less redistribution from those on high incomes generated from capital than from those earning the same income in wages and salaries.

A particular limitation of DIT systems is that they can incite small firms and the self-employed to reclassify their labour income as capital income. To prevent this, an income-splitting rule needs to be defined to ensure that investment in business assets is treated in the same manner as other forms of investment. This can be done by imputing a rate of return to the business assets of proprietorships, partnerships and farms and by taxing only this return as capital income. In practice, it will be important to carefully assess the pros and the cons of adopting a dual income system in New Zealand, where the share of small business in the economy is very high.<sup>11</sup> In this context, it would be interesting to draw on experience from a country such as Norway, where the issue of the treatment of small businesses has been closely looked at (Box 4.3). The issue of transitional costs should also be investigated.

**Box 4.3. The treatment of small firms in Norway's dual income tax system**

Since labour income is taxed more heavily than income from capital, a DIT system gives the taxpayer an incentive to misrepresent labour income as capital income. This option is mainly open to owners of small firms who work in their own business. To prevent such income shifting, the Norwegian tax rules that existed until 2006 required that the income of the self-employed and of "active" owners of corporations be separated into a capital income component and a labour income component (the so-called *split model*). The capital income component was calculated as an imputed return on the value of the business assets in the firm's tax accounts. The residual business profit was then taxed as labour income (up to a certain ceiling beyond which the profit was again categorised as capital income). This system worked reasonably well for the self-employed, but not for so-called active owners of small companies. Indeed, many Norwegian owner-managers were able to reclassify their labour income and to have all of their income taxed at the low capital income tax rate.

Because of these problems, in 2006 the Norwegian parliament replaced the problematic income-splitting system by a so-called shareholder income tax. This is a personal residence-based tax levied on that part of the taxpayer's realised income from shares (dividends plus realised capital gains) that exceeds an imputed after-tax rate of interest on the basis of his shares. In principle, the shareholder income tax will be neutral, since it exempts the normal (risk-free) return from tax, and realisation decisions are not distorted by the tax. Shareholder income in excess of the imputed normal return is supposed to be taxed as ordinary capital income. Rates have been set so that at the margin, the total corporate and personal tax burden on corporate equity income will be roughly equal to the top marginal tax rate on labour income. Hence corporate owner-managers will gain nothing by transforming labour income into dividends and capital gains. However, it remains to be seen whether the new Norwegian shareholder income tax will provide a complete solution to the problem of income shifting.

Source: Sørensen (2006) and OECD (2006c).

The limiting case of DIT when capital is not taxed at all is a proxy of a direct expenditure tax. In theory EET and TEE regimes<sup>12</sup> deliver the same post-tax income for individuals under some particular assumptions such as that the discount rate is equal to the rate of return, and that contributions and withdrawals are subject to the same marginal income tax rate (Yoo and de Serres, 2004). However, an EET system is likely to collect more revenue than a TEE system and so does not require such a large increase in other taxes to balance the budget. Indeed, shifting to a TEE system completely exempts income from the current (at the time of the changeover) stock of personal wealth, while an EET regime still subjects it to tax (to the extent that it is consumed).

In an expenditure tax, the tax base is consumption of final goods and services or income minus savings broadly defined, which includes savings at the company level. In contrast to indirect consumption tax, direct expenditure tax allows for a progressive tax schedule. In practice, there are two ways to implement a direct expenditure tax: a cash-flow tax or a yield-exempt tax. In the cash-flow tax method, a consumption tax is imposed only on that part of personal and corporate incomes that are used for consumption. Savings, as well as interest income and other returns on capital, are tax-exempt until they are withdrawn and spent. In the yield-exempt method, all forms of labour income are subject to tax, while earnings from capital income are tax-exempt.



A move from a comprehensive income tax to a direct expenditure tax would, in theory, have a positive effect on welfare (Katz, 1999). More precisely, a direct expenditure tax system has a number of advantages:

- Direct expenditure taxation eliminates the taxation of savings experienced by individuals and businesses under an income tax system. As such, a switch to an expenditure tax is expected to raise returns to savers and reduce required returns for investors, boosting equilibrium capital intensity and hence income levels. Most empirical studies (in particular for the United States) have concluded that the effect of switching to an expenditure tax would have only a small impact on savings (Freebairn and Valuenzuela, 1998). Although a move to direct expenditure tax would be expected to stimulate investment, the amplitude of the response remains uncertain.
- An expenditure tax will remove most of the differences in effective tax rates on different savings and investment vehicles. By reducing non-neutralities existing in the current tax system (e.g. the tax preference for owner-occupied housing over business investment), a direct expenditure tax would allow a more efficient mix of investment options.
- It is easier to measure an expenditure tax base, which is equal to total consumption, than a comprehensive income tax base, which requires the measurement of capital income and of the return to human capital investments on an accrual basis. Because it is simpler and has fewer ambiguous boundary issues than an income tax system, an expenditure tax is likely to be more resistant to tax avoidance.

Despite these advantages, this option has never been fully implemented anywhere in the OECD, although most member countries have some elements of direct expenditure taxation in their systems.<sup>13</sup> One of the main difficulties in implementing a pure expenditure-based tax system is that it may be difficult to raise a sufficient amount of revenue. Because savings are tax-exempt, rates in an expenditure tax system would have to be increased for the change to be revenue-neutral. This would increase the static deadweight cost, which has an exponential relationship with the rates and would thus reduce the overall benefit of not taxing savings. There may also be some resistance to adopting an expenditure-based system, because it is often wrongly perceived as a tax on labour that distorts work versus leisure decisions and can discourage labour force participation. However, in a life-cycle perspective, individuals can be better off with a tax on labour income rather than on saving (Feldstein, 2006). A switch to an expenditure tax would also redistribute the tax burden from those with positive to those with negative savings (i.e. generally from high to lower income individuals). Maintaining the current distributive pattern would require that the expenditure tax schedule be more progressive than the current income tax schedule. Lastly, such a tax change would be likely to have significant transition costs (Katz, 1999).

### Issues to consider within current tax bases

Although the current tax system is for most part well designed within a comprehensive income approach, it suffers from a number of shortcomings that reduce its efficiency and sometimes add unnecessary complications. This section lists the main limitations and suggests ways of improvements. It discusses in turn, personal income tax, the taxation of investment income and environmental tax policy.

### Optimising the taxation of income

Recent changes, in particular the gradual phasing-in of the Working for Families package, have eased the problem of welfare traps for sole parents and couples where one person receives unemployment benefits. But because of the interaction between tax rates and the abatement of tax credits and welfare benefits, effective marginal tax rates (EMTRs) faced by single-income households in the abatement ranges remain very high, reducing their incentives to increase hours worked, upgrade skills or take on greater responsibility. The package has also augmented disincentives to work for second-income earners (see OECD, 2005).

A number of measures could help to lower these disincentives to work. *First*, family assistance programmes could rely more on universal benefits, rather than on income-tested measures. In order to limit fiscal costs, these benefits could be targeted to families with children below the age of five, as it is easier for parents with school-age children to take up a job. This measure would be particularly useful to strengthen incentives to work for sole parents.<sup>14</sup> *Second*, income-tested benefits could be replaced by childcare and after-school care subsidies, which are found to have stronger effects on incentives to work than child benefits (Jaumotte, 2003). It is worth noting that income-tested benefits have two competing objectives – improving work incentives and reducing child poverty – and thus inevitably involve trade-offs. In any case, the benefits of increased incentives to work financed by fiscal transfers need to be weighed against the adverse incentives from the additional taxes required to pay for those transfers.

Flattening the personal income tax schedule could also be useful to reduce high EMTRs. This could be achieved by broadening the tax brackets or through a reduction in the number of brackets (or equivalently, a reduction in the number of effective tax rates). The latter option has been used in many OECD countries to flatten their income tax schedules.<sup>15</sup> The cost of the changes is estimated to be significant and can vary markedly from one option to the other (Table 4.4).

Over the years, bracket creep has affected nearly all taxpayers. For instance, the percentage of the population (above 18 years old) facing the 39% rate rose from 5% in 2000 to 12% in 2006. This stems from the fact that income tax thresholds have not been modified

**Table 4.4. Revenue impact of flattening the income tax schedule**

Full year effect, NZD millions

	Direct effect	With offset from GST, excise and company rate <sup>2</sup>
Changes in thresholds		
three thresholds (NZD 9 500, 45 000 and 60 000)	-700.0	-625.9
increase top threshold by NZD 5 000	-100.0	-82.9
Changes in tax rates		
two effective rates at 15% and 33% <sup>1</sup>	-2 820.0	-2 790.7
three effective rates at 15%, 33% and 39% <sup>1</sup>	-2 040.0	-2 011.1
four effective rates 15%, 19%, 29% and 33%	-1 880.0	-1 860.8
four effective rates 15%, 19%, 29% and 39%	-1 100.0	-1 081.0
lower top rate from 39% to 33%	-780.0	-779.8

1. Those previously taxed at 21% are taxed at 15%.

2. Lower tax means individuals have more disposable income and hence spending goes up. This results in an increase in GST and excise duties on petrol. With higher sales, profits increase and so do company taxes. Estimations of these offsets are included in this column.

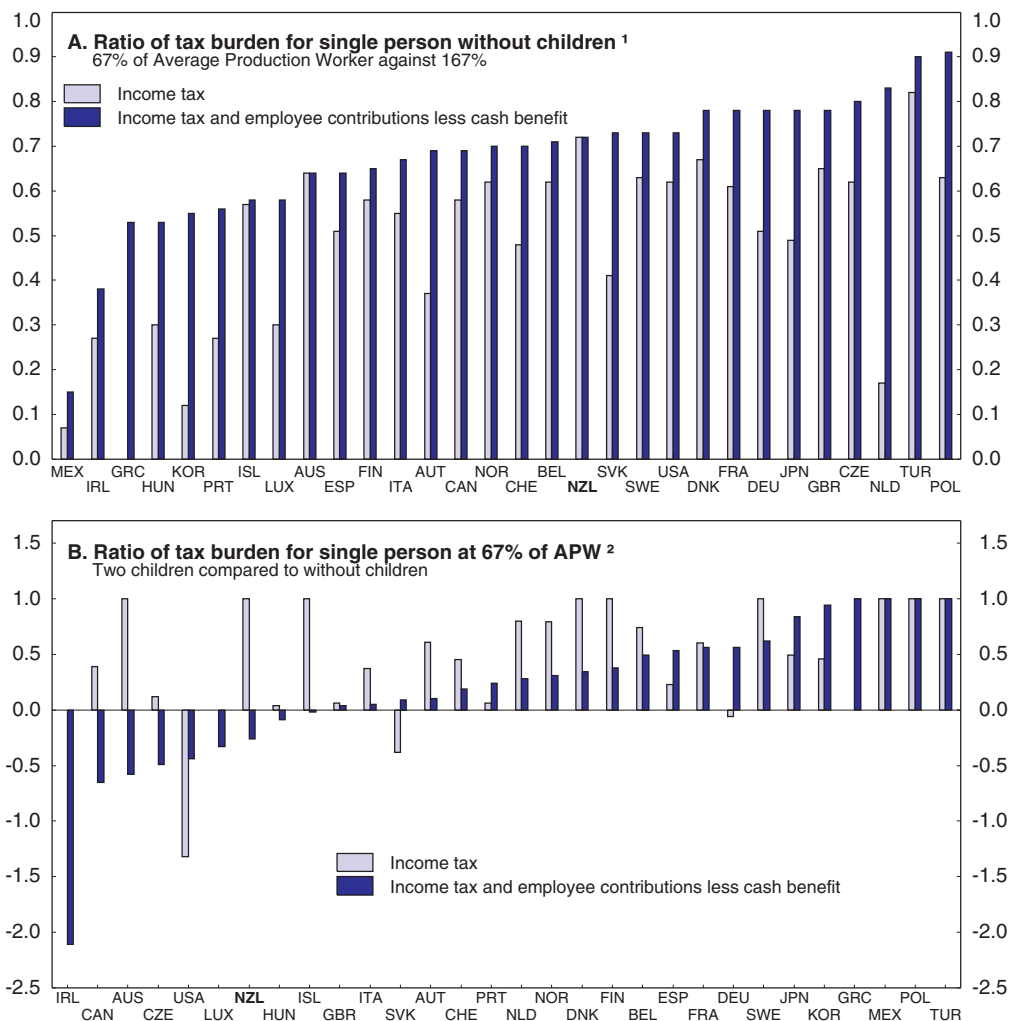
Source: OECD calculations using the NZ Treasury ready reckoners.

since 2000, while incomes have risen by about 30% over the same period. Against this background, the 2005 Budget introduced a policy of adjusting the low-income-earner rebate and personal income tax thresholds for 2% inflation every three years. But the first adjustment will come into effect only on 1 April 2008. Adjustments for inflation are common in OECD countries and most of the time are made on a periodic basis (OECD, 2006c).

Lowering the top rate is likely to increase incentives to work for high income earners, who also experience relatively high EMTRs, especially if they qualify for Working for Families support,<sup>16</sup> while having only a moderate effect on public revenues. Moving back to the rate alignment of corporate, income trusts and top personal tax rates would have the additional advantage of putting an end to income-sheltering activities, which can create a perception of unfairness and erode the overall integrity of the tax system. Such activities have developed


Figure 4.5. **Indicators of progressivity**

2005



1. Progressivity is assessed by comparing the burden faced by single persons earning two-thirds of the average wage with the burden faced by their counterparts earning five-thirds of the average wage.
2. Progressivity is assessed by computing the ratio of the burden faced by single persons with two children to the burden faced by single persons without children.

Source: OECD (2006), *Taxing Wages 2004/2005*, 2005 Edition, OECD Paris.

StatLink  <http://dx.doi.org/10.1787/008173312071>

significantly since the introduction of the 39% top rate, as evidenced by the huge amount of income that has been diverted to trusts to benefit from lower tax rates (IRD, 2005).<sup>17</sup>

These alternative options will have differential impacts on the income distribution and might end (or even reverse) the trend towards increased progressivity observed since the beginning of the decade.<sup>18</sup> However, personal income tax is not the principal instrument through which redistribution is achieved in New Zealand: most of the redistribution occurs from households without children to households with children and through cash benefits rather than through personal income tax rates (Figure 4.5).

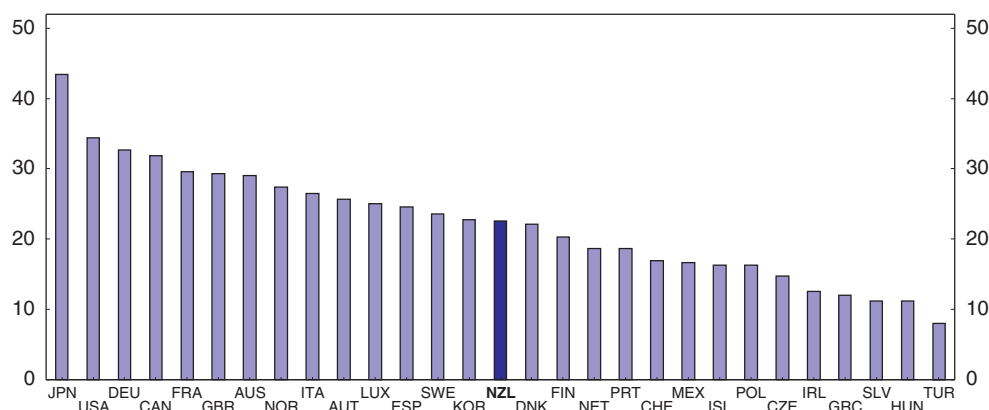
## Removing inconsistencies in the taxation of investment income

### Corporate taxation

Corporate taxes can distort firms' financing and investment behaviour in a number of ways, including the financing of investment and the choice of legal form (Heady and Brys, 2006). In addition, a corporate tax rate higher than those of New Zealand's trading partners creates incentives to stream profits to countries that have lower tax rates by, for example, transfer-price manipulation. Moreover, higher company taxes in New Zealand encourage domestic companies to relocate or be established elsewhere. They also discourage internationally mobile firms from locating their businesses in New Zealand.

Although statutory tax rates are now higher than the OECD average, marginal effective rates on capital are expected to be average by the end of the decade, assuming current policy settings (Figure 4.6).<sup>19</sup> They are, nevertheless, projected to be higher than in many other small OECD countries and emerging economies.

Figure 4.6. **Marginal effective rates on capital**  
All sectors, per cent, 2010



Source: Pastry A., J. Lester and D. Lemay, "An International Comparison of Marginal Effective Tax Rates on Business Investment in the Manufacturing Sector", paper presented at the 2006 Society of Government Economist (SGE) Conference, Washington DC.

StatLink  <http://dx.doi.org/10.1787/008215184311>

Concerns about the loss of international competitiveness of the NZ tax system have been growing, and the government proposed a number of measures in its 2006 Business Tax Review. The measures include: a reduction in the company tax rate to the Australian rate of 30% (from 33%); targeted tax credits for R&D activities, export market development activities and skills training; the deferral of losses from significant upfront expenditure to allow losses to carry through a shareholder change;<sup>20</sup> the deduction for a wider set of

“black hole” expenditures;<sup>21</sup> the modification of the depreciation loading on new assets; and a number of tax compliance measures.<sup>22</sup>

Many of these changes, such as the compliance measures, the deferral of losses and the deduction for black hole expenditures are likely to improve the efficiency and the simplicity of the tax system. It is also important to ensure that the depreciation allowed by the tax codes closely approximates economic depreciation, which is the decrease in the value of a productive asset that occurs because the asset is steadily less productive as it ages. Depreciation rates were modified in 2005 to better reflect the economic depreciation of assets, and different rates have been applied to short-lived and long-lived assets. However, a “loading” of 20% continues to be added to the depreciation rate for most new assets so that they depreciate more rapidly.<sup>23</sup> This reduces the bias that favours investment in longer-lived assets. But this loading introduces a distortion between new and second-hand assets. Moreover, the rationale for this additional loading is not clear, if depreciation rates are set appropriately. It introduces unnecessary complication, and it would be preferable to eliminate it.

The proposed cut in the corporate tax rate to the Australian level would certainly have beneficial short-term effects: it would help to improve the competitiveness of NZ-based companies in international markets, reduce incentives for NZ firms to shift profits away from the country and boost capital productivity by lowering distortions that impede corporate capital from being allocated to its most efficient use. Despite these positive short-term effects, the proposed measure may not be sufficient to markedly spur investment and promote long-term economic growth.<sup>24</sup> Indeed, the cut will affect only firms operating in corporate form. In addition, although the statutory corporate rate attracts a lot of attention from the general public, it is only a partial indicator of the incentives produced by the tax environment faced by firms.

A cut in the corporate tax rate should not be made in isolation as it would have implications for the design of the wider income tax structure. The usefulness of the imputation system is likely to be questioned if corporate tax rates are to be lowered even further (Annex 4.A1). Indeed, the need to remove double taxation of dividends may be less acute when corporate tax rates are low, while the granting of credits to resident and non-resident shareholders reduces corporate tax revenues. Moreover, lowering the corporate rate will also encourage firms to finance investment with retained earnings (rather than by issuing new equity), unless an adjustment is also made on the tax on dividends at the personal level. Finally, lowering the corporate rate with no change on the top personal income tax rate will favour income-shifting. More fundamentally, there is a need to go further than the measures announced in the Business Tax Review.

### ***Preferential exceptions to general tax rules***

Over the years, there has been a move toward granting more exceptions, constituting a break with the “broad base, low rate” policy endorsed in the 2001 Tax Review (McLeod *et al.*, 2001). Non-neutral tax policies that are unevenly applied to various activities encourage New Zealanders to devote resources to less-taxed activities, rather than to those that generate the greatest economic returns. This can induce a sectoral misallocation, as tax preference is given to certain types of investments.<sup>25</sup> Another risk is that, because targeting requires more information than is normally available, incentives are often given too widely by subsidising activity that would take place anyway. Targeted measures also increase the compliance and administration costs. They also generate intensive lobbying

from special interest groups pressing for tax concessions for their particular sector. In this context, it would be useful to level the playing field by removing existing taxation preferences.

The tax exemption for employer contributions to registered superannuation schemes is a further departure from the comprehensive income approach. In the latter system, any employer contribution to a superannuation fund for the benefit of an employee is liable for tax. The exemption was introduced in the context of KiwiSaver to incite employers to invest in superannuation schemes and give them more choice in the way they remunerate their workers. While this might seem attractive by providing some tax advantages to savings, it nonetheless introduces non-neutrality by only favouring one particular type of savings and can induce switching between savings instruments. Over the life cycle, it can be seen as a tax exemption for employees and erode the tax base.

Looking forward, the major risk is to head further away from a broad tax base. Indeed, the government has recently proposed targeted tax credits for firms that invest in R&D, exporters, or those that provide skills training (NZ Treasury and IRD, 2006a, 2006b and 2006c). The proposals' economic rationale is that there are wide benefits to the country when businesses invest in these activities and that investing firms do not capture all of these benefits themselves. The proposed R&D tax credit is expected to be available to a broad group of firms but will generate treatment differences between small and large companies, those that have taxable income and those that do not, and those who carry out R&D overseas and others. Moreover, if tax credits are adopted, it will be necessary to scale back the provision of grants through which most assistance to R&D is currently provided, as there is a risk otherwise of providing more assistance than could be justified by the spillover argument.<sup>26</sup>

Developing well-designed export and skill training tax credits is likely to be difficult; little guidance can be found in the economic literature or international experience. While recognising the importance of not restricting this assistance to specific firms or sectors, the government has proposed to limit export tax credits to small firms, which would reduce their incentives to grow. In addition, it is not clear whether these new credits would be more efficient than the current Market Development Assistance Scheme, for which additional credits were allocated in November 2006.<sup>27</sup> The proposal of introducing tax credits for firms that provide skills training will not be restricted to certain types of training, organisation types or sectors and could be useful to promote investment in human capital and thus foster productivity. However, it would be difficult to limit the extent of deadweight losses usually associated with this type of scheme. More generally, it would be preferable to limit the use of the tax system as an instrument to deliver other policy objectives, as this is likely to complicate the whole system, reduce its efficiency and open up rent-seeking activities.

### ***Offshore investment taxation***

The current system encourages domestic firms to relocate their headquarters outside of New Zealand if they plan to expand their active businesses in third countries or otherwise to stay small and local. Indeed, stricter rules than in other OECD countries are applied on controlled foreign companies (CFCs) reflecting New Zealand's choice to put more weight on neutrality considerations between investing domestically and abroad and less emphasis on competitiveness of domestic firms operating in foreign markets. New Zealand's foreign investment fund (FIF) rules for portfolio investment have been more

stringent in some cases and more generous in others with respect to international treatment of offshore portfolio investment.

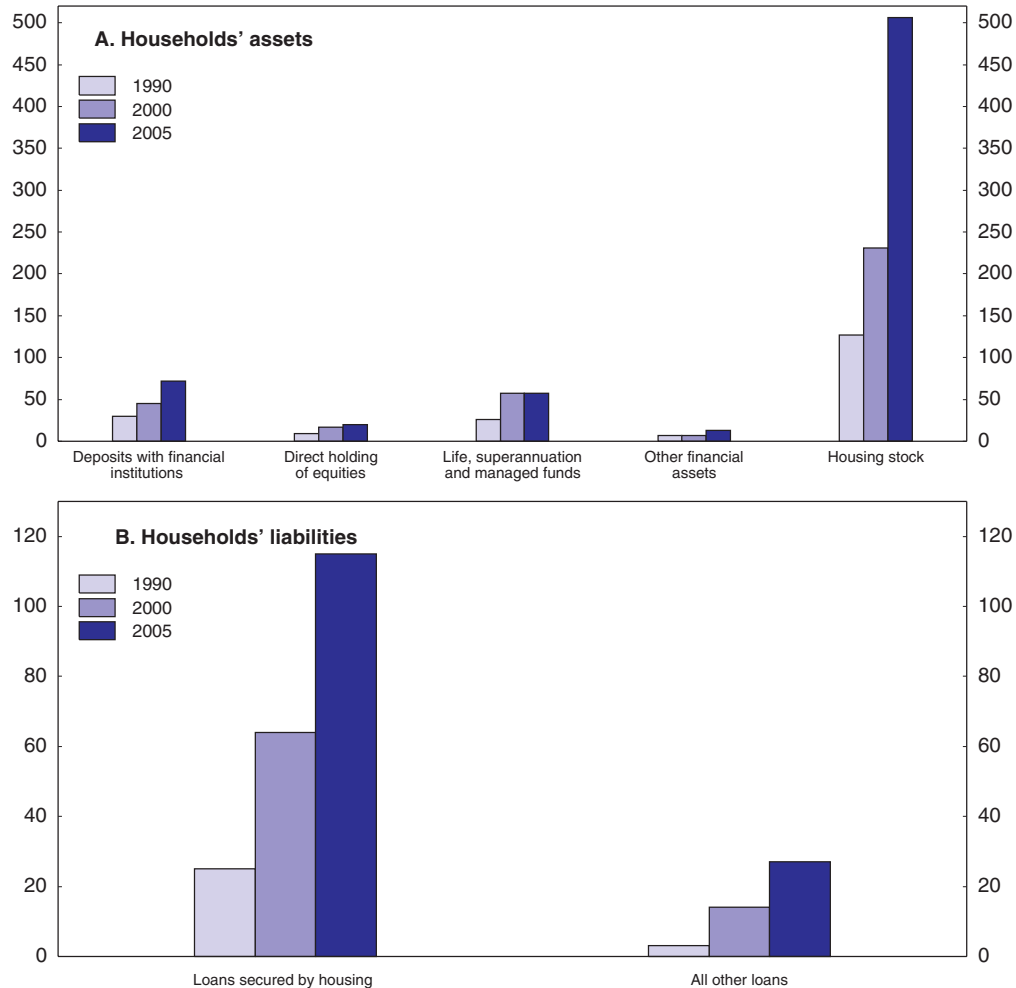
Current tax rules also provide an incentive to tilt NZ offshore investments to the so-called “grey-list” countries, when better overall returns may be available in countries that do not receive similar concessionary tax treatments. Indeed, “grey-list” countries have been exempted from CFC and FIF rules, and investors in foreign companies resident in these countries pay tax only on dividends.<sup>28</sup> In contrast, many offshore portfolio investments in other countries were subject to a taxation of full economic income. Finally, international taxation rules created unfair advantages for direct investors over other savers who use managed funds and are taxed on those funds’ earnings.<sup>29</sup> These anomalies have been removed since 1 April 2007 with the adoption of the fair dividend rate of taxing offshore portfolio investments.

Against this background, the government has proposed to relax the CFC rules.<sup>30</sup> This proposed change is welcome as it would bring the relevant NZ rules into line with international norms. It would also put NZ companies on a more equal footing by removing an additional tax cost not faced by firms based in comparable jurisdictions. The government has also introduced a new set of rules that aims to remove the difference in treatment between savings vehicles (IRD, 2006b).<sup>31</sup> While the changes reduce the distortions between managed funds and direct investment by taking a consistent approach to income, certain features of the new rules could cause some difficulty. *First*, it still appears more advantageous to invest directly rather than through a managed fund, as individuals will have the advantage of a variable rate and pay no tax in years when a loss is incurred. On the other hand, other factors may indicate a preference for investing through funds instead of individually, such as being taxed at 33% instead of 39%. *Second*, the credibility of the proposal has been questioned by the announcement of a special deal for an individual large group.<sup>32</sup> *Finally*, a number of other issues are unresolved or have emerged: the new rules are likely to increase compliance costs; the choice of a 5% inflation-adjusted risk-free rate of return has been questioned as relatively high<sup>33</sup>; and, more generally, there is the risk that the proposed system is judged too complicated by small investors.


### ***Levelling the playing field between financial and housing investment***

Housing is by far the most important asset in the wealth portfolio of New Zealanders (Figure 4.7). Indeed, as gains in house prices have generally exceeded the returns on financial assets, households have elected to build up housing equity, rather than saving some of their income in other forms.<sup>34</sup> This may reflect a tax advantage on owner-occupied housing compared to financial investments: financial investments are taxed on income and in some cases on capital gains while owner-occupied housing is exempt from taxation (other than the local property tax), though the lack of deductibility of mortgage interest may compensate for this treatment. This may also reflect taxation of capital gains on managed funds investments. At this stage, it is not completely clear how the recent changes to the Portfolios Investment Entity (PIE) tax regime are going to affect investment in housing: on the one hand, the number of listed real estate entities could rise and inject money in the housing sector, but on the other hand, tax changes may also incite domestic investors to invest more in financial assets and less in housing. Overall, the non-taxation of capital gains of financial assets is the more significant change and the net effect should be to reduce any tax distortion favouring investment in housing over investing in financial

Figure 4.7. **Household sector net worth**  
December years, NZD billions



Source: Reserve Bank of New Zealand.

StatLink  <http://dx.doi.org/10.1787/008246057532>

assets. By contrast, the set up of KiwiSaver is expected to accentuate the bias in favour of housing, by assisting home ownership. However, as almost all KiwiSaver accounts will use the PIE tax regime, the non-taxation of capital gains on equity investment should be an incentive to invest in financial assets instead of housing.

However, because only investors with completely equity-financed houses benefit from the full advantage of the housing's preferential tax treatment as the mortgage interest is non-deductible, the overall tax preference that benefits owner-occupied housing in New Zealand is not large compared to that in other OECD countries.<sup>35</sup> Nevertheless, the ability to deduct expenses for repairs and maintenance and interest related to rental properties against total income increases incentives to accumulate housing assets.<sup>36</sup>

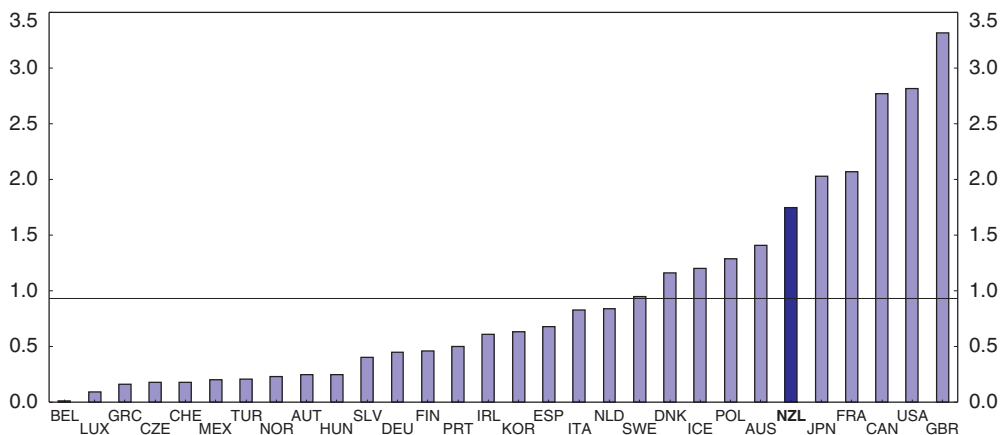
Tax advantages for owner-occupiers offered in other countries are often motivated by social policy objectives – to assist low- and middle-income groups in acquiring a home. However, they risk favouring higher income groups, who can afford the investment to qualify for the tax subsidy. More importantly, this preferential treatment diverts capital away from possibly more productive uses and distorts the allocation of savings between




different vehicles. From a microeconomic perspective, there are also risks in households putting too much of their wealth into housing. It can take time to turn an illiquid asset like a house into cash, should the need arise. Moreover, there is a risk regarding the valuation of housing assets. While there have not been any large downward adjustments to nominal house prices in New Zealand in the past, such changes could occur in the future.

Traditional taxation instruments are likely to fail to lower the tax advantage of housing over financial assets. Imposing a tax on realised capital gains on housing would do so but is likely to generate substantial lock-in effects. By contrast, introducing a national property tax on top of the existing local property taxes could be attractive. At the moment the amount of property tax levied is higher than in most OECD countries (Figure 4.8), but there is no tax on land. A national property tax on land existed in New Zealand but was abolished in 1989, following the collapse on land values. Setting up a new national tax on land is thus likely to be challenging from a political point of view, but it would have the advantage of being a relatively efficient way to raise revenues, as it would apply to an immobile tax base. Such a tax would need to be carefully designed so as to avoid traditional problems, including risks of the tax falling disproportionately on some asset-rich low-income groups such as pensioners or farmers.

Figure 4.8. **Immovable property taxes**  
Per cent of GDP, 2004



Source: OECD (2006), Revenue Statistics database.

StatLink  <http://dx.doi.org/10.1787/008331488533>

One possibility to remove part of the bias toward housing investment would be to modify the current interest and expense for repairs and maintenance deductibility for rental properties and make the deduction against rental income rather than total income as is currently the case. This would move New Zealand closer to standard procedures in other OECD countries and could lower incentives to invest in rental housing. But this would also be a further departure from a comprehensive income approach. A move to a dual income system would help to address this problem, by limiting deductions to rental income.

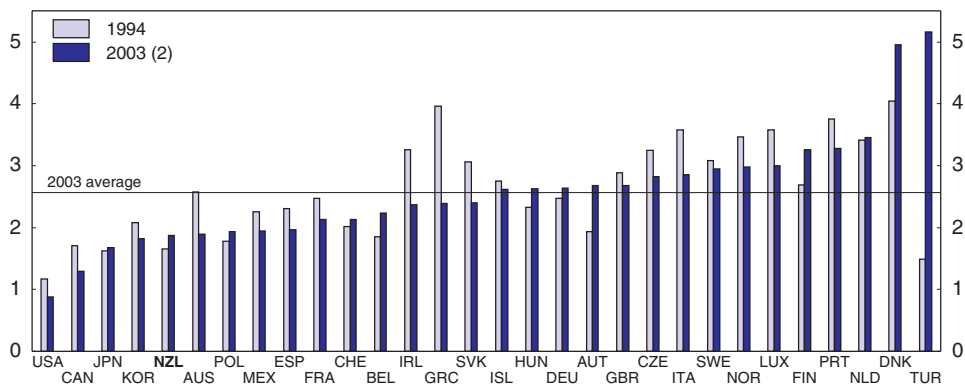
Another option would be to explicitly link the availability of deductions for interest, repairs and maintenance on investment in housing for business purposes to capital gains taxation. This would allow a self-selection process: if individuals choose to benefit from the deduction, then they would be subject to capital gains taxation. Otherwise they could

choose not to apply for the deduction and to be exempt from capital gains tax. The distortions to the composition of saving and investment implied by the absence of comprehensive capital gains tax would be less acute if New Zealand were to move to a dual income approach that would allow it to have a lower tax rate on capital income.

### Taxation and environmental policy


Revenues from environmentally-related taxes are low in New Zealand compared to other OECD countries (Figure 4.9). Past attempts to raise such taxes – for instance, the proposal to introduce a CO<sub>2</sub> tax of NZD 15 per tonne – have been abandoned, increasing uncertainty in investment decisions in some sectors such as energy. Moreover, some aspects of the current tax system are inconsistent with the country's espoused wish to adopt environmentally friendly policies. For instance, there is no tax on diesel fuel in New Zealand, while unleaded gasoline is taxed.<sup>37</sup>

Figure 4.9. **Revenues from environmentally-related taxes**<sup>1</sup>  
Per cent of GDP



1. Data refer to revenues from environmentally-related taxes for pollution control.
2. 2002 for Australia and the Slovak Republic.

Source: OECD (2006), *Consumption Tax Trends*, 2006 Edition, OECD Paris.

StatLink  <http://dx.doi.org/10.1787/008400211112>

The government has recently stressed the importance of developing a strategic Climate Change policy. As part of the draft National Energy Strategy, it has proposed a range of policy options to encourage low-emissions energy supply and a transition to greenhouse gas pricing, including a narrow based CO<sub>2</sub> charge that would apply only to the electricity sector (Ministry of Economic Development and Ministry for the Environment, 2006). These options are only for a transition period. For the post-Kyoto period, the government has mentioned a greenhouse gas charge as one possible measure for reducing greenhouse gas emissions. Other possibilities include voluntary and directive regulatory measures, although the NZ authorities have also indicated their preference to use economically efficient price-based measures applied to key sectors. However, decisions in this matter are pending until the international policy framework is clarified.

Designing and implementing an efficient environmental tax policy is difficult. However, the OECD has singled out a number of desirable features a system should have, using lessons from international experience (Box 4.4). Drawing on this experience, increasing environment-related taxes and encouraging the development and application of environmentally friendly technology would allow the country to achieve its environmental objectives in a more efficient way.

#### Box 4.4. International experience with the design of environmental tax policy

Experience over recent decades has proven that environmentally-related taxes can be effective and efficient instruments for environmental policy. Countries should strive for the broadest possible tax bases and limit exemptions and other special provisions to ensure cost-efficient emissions reductions. A broader reform strategy might make it easier to get acceptance for the tax from affected parties. This strategy has been used in many countries that have introduced green tax reforms. In general, political acceptance can be strengthened by creating a common understanding of the problem at hand, its causes and effects, and the impacts of possible alternative instruments that could be used. One way to build such a common understanding is to involve relevant “stakeholders” in policy formulation, for example through broad formal consultations and/or in committees or working parties preparing new policy instruments.

##### Sectoral competitiveness

Experience has shown that the following factors affect the impacts of environmental taxes on sectoral competitiveness:

- Different firms within a given sector will not be affected in the same way by any use of economic instruments, due to the different input combinations and the resulting differences in emissions profiles.
- Related markets bear some of the impact of a given policy on a particular sector. A part of any initial burden placed on a sector is likely to be shifted backward to input suppliers and forward to customers.
- The larger the group of countries that put similar policies in place, the smaller the impacts on sectoral competitiveness.
- Protecting the competitiveness of energy-intensive sectors through the recycling of tax revenues back to those sectors is likely to lower the environmental effectiveness of the policy as a whole.

##### Income distribution

Most studies show that environmentally-related taxes, and especially energy taxes, can have a regressive impact on the income distribution of households, although most do not include many of the indirect effects from price increases on taxed products. Regressive impacts from implementing environmental taxes are often softened by exemptions or rate reductions, but these can lower the effectiveness of the environmental tax. Cuts in other taxes or through the social security system are preferable, as they can maintain the price-signal mechanism of the tax while mitigating its negative impact on low-income households. In some cases the distributional concerns have not been addressed at all, or have surfaced late in the process and tackled in an *ad hoc* fashion. This might lead to strong opposition and failure to implement effective environmental measures and implies higher costs to society than necessary. To ensure that distributional concerns are properly addressed, Member countries could introduce mechanisms into the decision-making process whereby such impacts are explicitly analysed.

##### Administrative costs

It is possible to design a number of economic instruments for environmental policy that have relatively low administrative costs. For example, taxes on petroleum products are usually levied on a limited number of petroleum refineries and depots, and hence are relatively simple to administer and enforce. However, many economic instruments actually used for environmental policy involve a large number of special provisions that increase administrative costs. Such mechanisms are often introduced for non-environmental reasons, mainly to address competitiveness or income-distribution concerns. A lesson that can be drawn is that there often seems to be a trade-off between the size of the administrative costs and measures to create a “fair” or “politically acceptable” scheme.

Source: OECD (2006e).

## Conclusions and policy recommendations

This chapter has examined several aspects of the NZ tax system where improvements could be made to enhance efficiency and ensure the system will help the economy raise its living standards in the long term. In this respect it would be desirable to assess the direction the tax system should take over the long term, taking into account challenges such as the increasing globalisation of capital and labour and encouraging investment and savings.

Two broad strategic choices are available. The *first option* is to pull the tax system back towards the comprehensive income tax approach, with a single broad income base and low tax rates. This approach would imply unwinding recent measures by removing the gap between the top marginal income tax rate and the corporate rate, redesigning assistance to families so that high effective marginal tax rates are avoided and removing the exemption for employer contributions to superannuation. Over the long term it implies responding to pressures by reducing rates and ensuring alignment, and further broadening tax bases where possible. The *second option* would be to shift to a dual income tax system where capital income is taxed at a lower rate than labour income. This would involve two separate income tax bases, for capital income and for labour income. This approach would require well-designed rules to ensure that labour income is not reclassified as capital income, especially by owners of small businesses, although this requirement depends on the margin between the two tax rates. When considering the option of reducing taxation on capital income, it is worth noting that in the limiting case where capital income is not taxed at all, this system would in effect have the characteristics of an expenditure tax. Under this approach the tax base effectively becomes consumption instead of income, even though it would still be collected as direct taxation through administrative systems resembling the present Pay-As-You-Earn arrangements.

These options should be evaluated carefully against the criteria of efficiency, equity, simplicity, transition costs and the ability to address the key long term challenges facing New Zealand. These concepts are themselves evolving, with considerably more emphasis now being placed on inter-temporal dimensions than in the past. Assessing alternatives based on these criteria according to their impact over time rather than in a single period can in some cases make the comprehensive income approach look less attractive than the dual income alternatives. In addition, assessments need to be made within a general equilibrium framework.

Developing a longer term direction for the tax system will take time. Any changes in the interim should be designed to be consistent with the ultimate choice of strategy. Policy recommendations are provided below (Box 4.5).

#### Box 4.5. Policy recommendations for the tax system

The following recommendations for improving the tax system would help to ensure that it makes the largest possible contribution to raising the country's living standards over time.

- Develop a long term strategy for the tax system. Assess which of the following two broad alternatives would deliver the greatest net benefits to the country within an inter-temporal, general equilibrium framework according to the criteria of efficiency, equity, and simplicity, transition costs and the ability to address the long term challenges facing the economy:
  - ❖ A purer comprehensive income tax, with a single broad income base and low tax rates; or
  - ❖ A dual income tax, with separate tax bases and tax rates for capital and labour income.
- Examine the merits of changing the following features of the existing system:
  - ❖ Lower the high effective marginal tax rates associated with the Working for Families package. Shifting to higher subsidies for childcare and out-of-school care for working parents would be one option.
  - ❖ Reduce the top marginal income tax rate and align it with the trust and company rate.
  - ❖ Enhance the neutrality of corporate tax by removing the loading in the depreciation procedure. Assess the relative costs and benefits of having an imputation system.
  - ❖ Limit exemptions to the corporate tax base. Remove current preferential tax treatment for certain activities or industries and resist the introduction of new tax exemptions. If R&D tax credits are adopted, scale back grants to avoid providing excessive support to R&D.
  - ❖ Adopt the proposed changes to the CFCs regime and pursue efforts to harmonise the tax treatment of managed funds and individual investors for offshore investments.
  - ❖ Level the playing field between investment in housing and financial assets. This could include modifying the current ability to deduct expenses for repairs and maintenance and interest payments for rental properties so that it is only deductible against rental income rather than all income. Another measure would be to explicitly link the use of deductions for depreciation, repairs and maintenance on investment in housing for business purposes to a clear liability for capital gains taxation.
  - ❖ Set up a national property tax.
  - ❖ Rely more on indirect consumption tax for raising revenue by increasing the GST rate.
- Design a consistent policy on environmental taxes that contributes to delivering environmental objectives at the minimum economic cost.

#### Notes

1. Provisional data suggest the ratio increased to 36.6% in 2005 (OECD, 2006a).
2. Such tax revenues were 61.1% of total taxation in 2004, while the unweighted OECD average was only 34.4%. Amongst the other OECD countries, only Denmark had a ratio above 60%.
3. ACC levies are not included in payroll and social security data.
4. The C-efficiency ratio is the share of VAT revenues to consumption divided by the standard rate, expressed as a percentage.

5. Effects of such a move on external trade would depend on whether the switch is made from corporate or other direct taxes: a move from corporate taxes to GST may increase NZ firms' competitiveness in international markets, while a move from property or personal income tax to GST would be expected to have little effect.
6. Some (for example, several Canadian provinces) provide a sales tax rebate based on taxable income.
7. This means that the value of the credit is payable to the taxpayer to the extent that its value exceeds the tax that would otherwise be due.
8. In principle under a pure comprehensive income approach, all income should be taxed including that which is generated by home production and other forms of unpaid work. In practice, income from unpaid work is not taxed under a comprehensive approach or under any alternative taxation model.
9. Sørensen (1998) offers another interesting argument why capital income might be taxed at a proportional rate and labour income at progressive rates under the dual income tax. Traditional income tax systems allow investment in human capital, which takes the form of foregone (taxable) wage income, to be fully expensed, while investment in physical capital does not enjoy this favourable tax treatment. This unfavourable tax treatment can be counteracted by progressive taxation of labour income and proportional taxation of capital income. Another argument is related to adjustment to inflation: personal income tax systems usually tax the nominal return to capital, even though the inflation premium just compensates for the erosion of the real value of the assets. A lower personal capital income tax rate might then offset the higher tax burden as a result of the taxation of the nominal return on savings and investment.
10. However, a counter-argument would be that for countries with high rates of migration, labour may in fact be a more mobile factor than capital and more sensitive to tax changes than owners of capital. In this case, a cut in the tax rate on capital accompanied by a rise in taxes on labour might, in fact, shrink the total tax base.
11. Statistics New Zealand reports that in February 2006, 64% of all enterprises had no employee and more than 20% had between 1 and 5 employees.
12. Savings vehicles include usually three transactions that can be subject to taxation: when a contribution is made to the saving instrument, when investment income and capital gains accrue to the savings vehicles and when funds are withdrawn. In an EET system both the fund contributed and the accrual return on accumulated funds are exempted from taxation, but the benefits are treated as taxable income upon withdrawals. In a TEE system, only contributions are taxed.
13. Some recent measures such as the tax exemption for employer contributions to the KiwiSaver can be seen as moves toward an expenditure tax.
14. Indeed, sole parents have faced very little pressure to find a job since the 2003 removal of the work test.
15. Slovakia and some other possible future Member countries have gone so far as to adopt a completely flat tax or at least a system with only one non-zero statutory rate.
16. Estimations using the IRD calculator of family assistance and other data from Benefits and Wages suggest that a single-earner family with 2 children aged 4 and 6, earning 1.5 times the average wage or more would face EMTRs close to 60%. This calculation incorporates the latest changes made to thresholds and abatement rates of the Working for Family package. Average EMTRs for high-income earners are now relatively high by international standards, while they were amongst the lowest in the OECD before the implementation of the Working for Families package.
17. However, the gap between the top personal rate and the corporate rate is not large by international standards.
18. A particular definition of progressivity is used here: the ratio of the burden faced by single persons earning two-thirds of the average wage to the burden faced by their counterparts earning five-thirds of the average wage.
19. The effective marginal tax rate (EMTR) on capital is a forward-looking indicator that measures the extra return that an investment would need to earn to pay taxes, over and above the rate of return needed to make the investment worthwhile if there were no taxes.
20. This corresponds to an extension to a wider set of expenses than the Budget 2005 R&D measures.

21. "Black hole" expenditure is expenditure that proves worthless or leads to an asset which falls in value over time, and is neither immediately deductible nor amortisable. Examples are the demolition of a building or the cost of certain feasibility studies.
22. This includes increasing low-value asset write-off thresholds, reducing compliance costs for assets that reach a low depreciated value, and increasing the threshold for taxpayers allowed to submit an annual Fringe Benefit Tax return.
23. For instance, the straight-line depreciation rate of 40% becomes 48% with the loading for computers and software.
24. Unfortunately, the empirical literature provides few indications on the order of magnitude of the tax elasticity to capital formation. Hassett and Hubbard (1997) concluded that, according to most studies they surveyed, the elasticity of investment to its user cost ranged between  $-0.5$  and  $-1.0$ , suggesting some substantial influence of taxes on investment behaviour. However analyses based on micro data find taxes have a much lower impact (see, for instance, Chirinko et al., 1999). Overall, it is likely that the effect of taxes will depend on the precise specification of the user cost of capital and the relative weight placed on taxes in the user-cost specification. There is also some evidence that corporate tax may influence outbound FDI stocks, but the amplitude of the impact will depend on parent and host countries' specificities (Egger et al., 2006).
25. These investments are immediately deductible.
26. There is evidence of the existence of an inverted-U shaped relationship for the impact of public subsidies on private R&D (Guellec and van Pottelsberghe de la Potterie, 1997), implying that the provision of too much support could lower the overall efficiency of policy.
27. The scheme can be used for marketing-related expenditure related to entering or promoting a better position in an international market. The scheme covers up to 50% of a firm's eligible international market expenditure. Expenditure covered includes market visits, in-market representation, advertising and promotion, marketing collateral, trade fairs and events and market research. In November 2006, a NZD 33.75 million boost was announced to the Market Development Assistance Scheme. The funding will be spread over fifteen months from January 2007. Support for the scheme will amount to NZD 40.6 million in the 2006/07 financial year and to NZD 45.6 million in 2007/8.
28. Over 70% of outbound portfolio investment goes into grey-list resident entities.
29. For instance, managed funds are taxed at the corporate rate (33%) while direct investors can be taxed at the top marginal personal income rate (39%). Direct investors taxed on Australian share gains, whereas managed funds are exempt. Direct investors in grey list companies generally were not taxed on capital gains, while managed funds generally were taxed on capital gains as income from share trading. This anomaly has been removed since 1 April 2007 with individuals and managed funds both being taxed on their offshore investments by the fair dividend rate.
30. The government has proposed a relaxation of the current CFC rules by introducing an active/passive distinction: offshore active income would be exempted from accrual taxation, and passive income would continue to be taxed as it accrues. Consideration will be given to whether the active/passive distinction should apply in respect of foreign branches and non-portfolio interests in FIFs. A possible reduction in non-resident withholding taxes, which are levied when a non-resident derives interest, royalties or dividends from New Zealand, is also under consideration. This could encourage inward investment and could benefit NZ firms investing offshore if reciprocal arrangements are applied.
31. In December 2006, a new set of rules was adopted to modify the current treatment of offshore share investments where the investor owns 10% or less of the foreign entity in which such "portfolio" investment is placed. First, the grey list will be removed for portfolio investments; only the exemption for Australian investments will stay. As a result, under the new proposal the non-grey-list countries will be taxed on a fair dividend rate instead of capital gains. Second, individuals will be taxed on a maximum of 5% of the value of their offshore shares in a given year. Individual investors would be able to pay tax on a fair rate lower than 5% if they can show that their offshore portfolio share investments made a return of less than 5%. Where an individual investor's shares make a negative return, no tax would be payable. Third, managed funds will be taxed on 5% of the opening value of their shares. This is essentially a risk-free-rate-of-return method. The new rules would not apply to individuals' investments below NZD 50 000 (total cost) into companies listed on a recognised stock exchange in a country with which New Zealand has a double tax agreement. Government estimates suggest these changes will cost NZD 140 million per year.

32. In May 2006 the government announced that NZ shareholders in the Guinness Peat Group could be granted a five-year "holiday" from the proposed NZ tax regime for offshore share investments. No final decision has yet been taken on this matter.
33. The proposed 5% was justified on the ground that historical returns on equity investments have averaged around 9% in the last 20 years. However, the 2001 Review proposed 4% as an inflation-adjusted risk-free rate of return, and PricewaterhouseCoopers' submission to the Committee suggested 3%.
34. Some psychological factors may also be put forward: NZ households are said to be reluctant to invest in financial savings following their experiences in the late 1980s and at the beginning of the current decade.
35. Indeed, in many other OECD countries mortgage interest payments often result in tax deductions against the highest marginal income tax rate, which favours extensive debt-financing of the property.
36. In most other OECD countries, these expenses are deducted from income on rental properties.
37. There is, however, an additional road user charge applied to diesel-engined vehicles so that the total tax wedges on petrol and road use of diesel do not usually differ by a large amount.

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## ANNEX 4.A1

*Imputation systems in OECD countries***The NZ imputation system**

The imputation system was introduced to make sure that, as far as possible, company profits are taxed only once, at the marginal tax rate of the company's shareholders. It lets companies pass on to their shareholders credits for the NZ income tax paid by the company, the credit depending on company tax paid (Table 4.A1.1). This means that shareholders get the benefit of the income tax that the company has paid.

Table 4.A1.1. **Net after-tax dividend for the shareholder under the imputation system**

	Previous NZ system	Imputation system
<b>Tax on company</b>		
Company profit	1 000	1 000
Tax at 33%	330	330
After-tax profit	670	670
Dividend paid to shareholders	670	670
Retained earnings	Nil	Nil
<b>Tax on shareholder</b>		
Dividend received	670	670
Imputation credit	Nil	330
Taxable amount	670	1 000
Tax at 33%	221	330
Less imputation credit	Nil	330
Tax payable by shareholder	221	Nil
<b>Result for shareholder</b>		
Cash dividend received	670	670
Less tax payable	221	Nil
Net dividend after tax	449	670

Source: IRD (2006a)

Imputation applies to income tax paid by NZ resident companies for all income years from 1989 onwards. The imputation rules were amended in 2003 to allow Australian companies to elect to maintain an imputation credit account in New Zealand. These changes were made to address the double taxation on certain trans-Tasman investments by allowing electing companies to pass on imputation credits for NZ tax paid to their shareholders.

The system almost fully removes the double taxation of domestic income of domestic shareholders and is relatively neutral with respect to the corporate financing decision. Imputation credits are only for resident shareholders. The system maintains similar tax treatment between non-resident and resident shareholders through the foreign investor tax credit (FITC) rules.

### **Comparison with other OECD countries**

Full imputation systems are not common within the OECD. Only Australia has a similar dividend imputation system. Most other OECD countries relieve double taxation of dividend income by using a credit system (where the credit does not depend on company tax paid) or by having a modified classical system with a reduced rate on dividends. In recent years, countries in the European Union have moved away from imputation systems for legal reasons and to remove the distortion the system induces between resident and non-resident shareholders.

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