COMPARISON OF THE NEW ZEALAND AND AUSTRALIAN RETIREMENT INCOME SYSTEMS

Background paper prepared for the 2013 review of retirement income policy by the Commission for Financial Literacy and Retirement Income

Ross Guest

Professor of Economics

Griffith University

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CONTENTS

EXECUTIVE SUMMARY

There are two main differences between the retirement systems of Australia and New Zealand. First, Australia's age pension is means tested while New Zealand's is universal. Second, Australia has a compulsory employer funded superannuation scheme, the Superannuation Guarantee (SG). New Zealand's version, KiwiSaver, is not compulsory – employees are automatically enrolled but can opt out. If they do not opt out both employees and employers are required to contribute. Both systems have been subject to frequent changes in rules to the point where public confidence has been damaged.

How do the two systems compare on the criteria of adequacy, economic efficiency, equity, sustainability and stability? Once KiwiSaver and the SG are mature schemes (which will take at least several decades), and after including the respective age pensions, the Australian retirement system will score higher on **adequacy** because it will provide a higher pre-retirement income replacement rate: about 90 per cent compared with about 60 per cent in New Zealand. This applies to a representative individual on average earnings throughout their working life. On **economic efficiency criteria**, the New Zealand system probably comes out in front overall, but more clearly on some of the economic criteria than others. It outperforms the Australian system in encouraging labour participation and employment, as well as better facilitating lifetime consumption smoothing. Neither system is a clear winner on labour productivity. On national saving, the universality of New Zealand Superannuation (NZS) is on balance likely to be positive for the level of saving but the relative generosity of NZS has the opposite effect. KiwiSaver has a smaller positive effect on saving relative to Australia's SG.

There are two dimensions to **equity**: between generations (intergenerational) and within any given generation (intragenerational). Intergenerational equity is usually evaluated according to the degree of cost-shifting to future generations. New Zealand imposes more cost-shifting because the fiscal cost of NZS is roughly twice that of Australia's age pension. However there is arguably more intragenerational equity in the New Zealand system due lower poverty among the over 64 age group and slightly less inequality across all ages.

The fiscal cost of NZS also has implications for **sustainability**. New Zealand's overall retirement system is currently more expensive by about 1 per cent of GDP. Under current policies, this gap will grow mainly because the fiscal cost of NZS will grow relative to the cost of Australia's age pension. Partially offsetting this is the slightly lower fiscal cost of KiwiSaver relative to Australia's SG. However, long term fiscal projections are very uncertain due to continual speculation about further tinkering with the rules. Tax concessions are under threat in both countries and in New Zealand there is perennial debate about making KiwiSaver compulsory. Hence neither system scores well on **stability**, although perhaps New Zealand is in front on this criterion due to somewhat less tinkering than in Australia.

BACKGROUND

New Zealand and Australia have very different systems for providing retirement income. New Zealand's is primarily based on a PAYGO, tier one pension which is universal and not means tested (though subject to income tax). Since 2007, New Zealand Superannuation has been complemented by the KiwiSaver scheme which has both tier two and tier three characteristics. KiwiSaver is funded by a mix of individual and employer contributions plus a government subsidy. KiwiSaver members are automatically enrolled on starting new employment, although they can opt-out or take contributions holidays. Anyone aged under 65 (including children) can join voluntarily. Australia has a tier one means-tested, PAYGO pension complemented by a compulsory "Superannuation Guarantee" (SG) which is funded by a compulsory employer contribution of 9 per cent of wages and salaries (due to rise to 12 per cent by 2019). Each country has the option for voluntary tier three provision. There are differences between Australia and New Zealand in taxation and eligibility rules for retirement savings and pensions. The outcomes for retirees are also different and set to diverge as Australia's system matures in about 2040. Increasingly in New Zealand, comparisons are being made between the two systems, with some suggesting that Australia's has advantages sufficient to incentivise an increase in westward migration.[1]

Finally, there are macroeconomic issues in relation to the fiscal cost of each system and the respective contribution made to increasing national savings and economic growth.

AIMS AND OBJECTIVES

The aim of this report is to inform New Zealanders who may wish to participate in the processes of consultation associated with the 2013 Review of New Zealand's Retirement Income Policy. The objectives are to describe, explain and evaluate:

1. The overall architecture of the Australian and New Zealand systems for retirement income provision, including both the accumulation and decumulation phases;

2. The economic costs and benefits of each system;

3. The current and projected future outcomes for retirees in each country in terms of levels of indebtedness/net worth at retirement, income adequacy and poverty levels;

4. The relative strengths and weaknesses of each system in relations to key requirements of equity, stability, sustainability, adequacy and efficiency.

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[1] See http://fsc.org.nz/site/fsc/files/reports//FSC_Summary%20report_FINAL%20copy.pdf

1 Overall architecture of the Australian and New Zealand systems for retirement income provision

1.1 Design features as at December 2012.

The design features of the two systems are summarised in Table 1.

1.1.1 The "pillars"[2]

Both countries have a public age pension (pillar 1) funded, the main difference being that Australia's is means tested while New Zealand is unique in providing a near-universal age pension (see eligibility criteria below). Also Australia's age pension is funded on a purely Pay-As-You-Go (PAYGO)[3] basis, while the New Zealand age pension is mainly PAYGO but partly pre-funded through the New Zealand Superannuation Fund. The second pillar of a retirement income system is a compulsory private superannuation scheme, the Australia version of which is the Superannuation Guarantee (SG). New Zealand's KiwiSaver is a hybrid Pillar 2-3 scheme in that new employees are automatically enrolled but can opt out. If they do not opt out both employees and employers are required to contribute (Pillar 2) with employees having the option of making contributions above the default rate (Pillar 3). Both retirement systems include Pillar 3 voluntary private superannuation funds. In Australia these are tax-preferred but in New Zealand tax preferences for such private superannuation were removed in the late 1980s.

1.1.2 Minimum contribution rates

In Australia, the Superannuation Guarantee Levy (SGL) is a compulsory levy on employers of 9 per cent of employees' gross ordinary earnings for all employees aged up to 75. It is legislated to increase to 12 over a period of 7 years commencing 1 July 2013. In New Zealand, the minimum employer contribution is 3 per cent (up from 2 per cent on 1 April 2013). In addition most new employees are now automatically enrolled to make employee contributions to KiwiSaver (Pillar 3) at the minimum rate of 3 per cent of ordinary gross earnings (up from 2 per cent as from 1 April 2013). Individuals can choose to contribute at higher rates of 4 per cent or 8 per cent.

1.1.3 Taxation rules

Age pension

Australia: The age pension is taxable at marginal rates but the senior Australians tax offset may eliminate the tax liability.

New Zealand: The age pension, paid from NZS, is taxable at marginal rates.

Employee superannuation contributions

Australia: contributions are taxable at a flat 15 per cent up to an annual cap of $25,000. Contributions in excess of the cap are generally taxed at 46.5 per cent.

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[2] The OECD and World Bank describe retirement income systems in terms of pillars – for example, Borsch-Supan and Held (1997) .

[3] A PAYGO scheme funds pensions from taxes paid by the current generation of taxpayers. A Save-As-You-Go (SAYGO) scheme pre-funds pensions, either publicly by accumulating taxes or privately by individuals accumulating their own funds.

New Zealand: Employer contributions to KiwiSaver are taxable at either the employee's marginal rate or according to the ESCT schedule which rises with income from 10.5 per cent to 33 per cent. Employee contributions to KiwiSaver are made from after-tax pay (i.e. from net pay that has already been fully taxed at the employee's marginal rate).

Earnings on superannuation balances

Australia: earnings are taxed notionally at a flat 15 per cent, but the actual tax rate is generally around 8 per cent due to dividend imputation credits and the discounted tax rate on capital gains.

New Zealand: earnings are generally subject to a tax rate of 28 per cent.

Superannuation withdrawals

Australia: withdrawals can be made (tax free) after age 60.

New Zealand: withdrawals can be made (tax free) after age 65.

1.1.4   Decumulation options

Both Australian and New Zealand superannuation withdrawals (other than KiwiSaver) can be taken in lump sum or pension form. But in Australia, unlike New Zealand, minimum annual withdrawals apply. In both countries annuities[4] can be purchased from life insurance companies but there are no default annuity products. The market is less developed in New Zealand, as is the market for non-superannuation wealth decumulation options, such as home equity withdrawals.

1.1.5   Age pension

As Table 1 indicates, in Australia the pension amounts are lower as a proportion of male average weekly earnings and are subject to an income and assets test (Table 1). The eligibility age is legislated to gradually increase in Australia from 65 to 67 from 1 July 2013. In New Zealand there are no plans to increase the eligibility age of 65.

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[4] An annuity provides a guaranteed fixed annual income for either a fixed number of years (e.g.10, 20) or until death (a lifetime annuity). Access to the lump sum is generally foregone. The age pension is effectively a lifetime annuity.

Table 1.1 Summary of design features of retirement income systems

Design feature	Australia	New Zealand
The pillars – Pillar 1	Means-tested public age pension (PAYGO)	Universal public age pension (PAYGO): NZS
– Pillar 2	Compulsory private superannuation (SG)	KiwiSaver is a hybrid of Pillar 2 and 3 schemes. Minimum employer contributions is a pillar 2 feature, and the employee opt out along with optional higher contribution rates is a pillar 3 feature
– Pillar 3	Voluntary private superannuation	Voluntary private superannuation separate from KiwiSaver
Minimum contribution rates	Employer contribution The SG: 9%, gradually rising to 12% over 7 years from 1 July 2013. Applies to employees up to age 70 (75 from July 2013)	Employer contribution Minimum 3% Employee contribution KiwiSaver: 3%, 4% or 8%. Can opt out and otherwise choose rate Applies to employees aged 18 to 65. Total minimum of 6%
Taxation rules	Age pension: Taxable but liability may be eliminated by tax offset for seniors Super contributions: Taxable at flat 15% up to cap of $25,000; excess contributions taxed at marginal rate Super fund earnings: Notional 15% but actual rate is around 8% due to imputation credits and capital gains Super withdrawals: Available at age 60, tax free	Age pension: Taxable at marginal rate Super contributions: KiwiSaver Contributions: Employee contributions made from net pay (after taxation at employee's marginal rate) and employer contributions taxable according to ESCT schedule[5]. Super fund earnings: Generally 28% Super withdrawals: Available at age 65, tax free
Superannuation decumulation options	Lump sum or account-based pension. Minimum annual withdrawals apply in pension phase. No default annuity product but annuities can be purchased from life insurance companies.	KiwiSaver balance can be withdrawn as a lump sum or by regular amounts with no minimum withdrawals. Voluntary super balances withdrawn as a lump sum or account-based pension. NZS, like Australia's age pension, is a lifetime annuity. No default annuity products for voluntary super withdrawals but can be purchased. Less developed market for home equity release products.

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[5] Employer Superannuation Contribution Tax. http://www.ird.govt.nz/payroll-employers/make-deductions/deductions/super-contributions/emp-deductions-salaries-super.html

Age pension – amount	Singles **Indexed to 25% of male average weekly ordinary time earnings (AWOTE)** Couples **19% each (or 38% for couple) of male AWOTE, at Sept 2012**	Singles **37% of male AWOTE** Couples **28% (each) of male AWOTE at 1 April 2012[6]**
Age pension – eligibility	Age 65, increasing to 67 by 2020 Residency test[7]	Age 65, no increase planned. Residency test[8]
Age pension – assets test	Singles (couples) Full pension if assets less than $192,500 ($273,000 for couples) for homeowners and $332,000 ($412,500 for couples) for non-homeowners. Otherwise pension tapers off to zero for assets greater than $707,000 ($1,050,000 for couples) for homeowners and $847,250 ($1,189,500 for couples) for non-homeowners.	None
Age pension – income test	Singles (couples) Full pension if income less than $152.00 ($268.00). Otherwise pension tapers off to zero for income greater than $1,669.20 ($2,597.60).	None

1.2   Policy objectives

The pillars of the two retirement income systems are designed to meet socio-economic objectives, some of which are different and some of which are common. The New Zealand Retirement Commission (2010, Chart 5.7, p.95) linked eight socio-economic objectives to the two principle retirement income policies. See Table 1.2 for comparison with Australia. The main differences between the Australian and New Zealand policies in meeting the eight policy objectives are briefly outlined as follows. Some of these points are also discussed, but in more detail, in Sections 2 and 3 of this report.

KiwiSaver scores higher than Australia's SG in encouraging **voluntary saving** because auto-enrolment with opt out provisions encourages participation, and employees can choose various contribution rates (3 per cent, 4 per cent or 8 per cent) which allows individuals to adjust their level of saving over their lifetime to suit their circumstances. The SG on the other hand is a fixed employer contribution and the only encouragement to make additional voluntary contributions is provided indirectly through the tax system (see below). Similarly, KiwiSaver facilitates better **lifetime consumption smoothing** due to its choice of saving levels over the lifecycle. Both of these factors provide economic welfare advantages to KiwiSaver (discussed further in Section 2). On the other hand, KiwiSaver

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[6] These figures are for each person and are a percentage of male AWOTE. This is consistent with the legislation which requires that the standard weekly amount payable to a couple will range between 65 per cent and 72.5 per cent of the AOTE for persons i.e. males and females combined.

[7] An Australian resident for a continuous period of at least 10 years, or for a number of periods that total more than 10 years, with one of the periods being at least five years.

[8] Resident and present in New Zealand for at least 10 years since 20 years of age (and 5 of those years since turning 50, with some exceptions.

is somewhat less favourable in achieving **cohort self-funding** than Australia's SG. The SG is expected to allow a replacement rate of around 90 per cent (of gross earnings) for a 30 year old entering the workforce today and who remains on the median wage until retirement at age 67.[9] This is well above the generally accepted target replacement rate of 70 per cent.[10] For New Zealand, recent simulations suggest that a combination of NZS and KiwiSaver (at 3 per cent employee plus 3 per cent employer contribution rates) would replace 60 per cent of an average male salary at retirement, given contributions from age 25 to 65 for an individual earning the average male salary throughout his working lifetime.[11]

The **wellbeing** objective is perhaps the hardest to apply because it is so broad. The most tangible factor that contributes to wellbeing in the context of retirement incomes policy is the encouragement of flexible work opportunities for older people. On this criterion, KiwiSaver and the SG have a limited positive effect in the sense that work participation is a pre-condition to participate in both schemes and therefore receive tax credits. NZS scores higher than the Australian age pension on this objective because it is not means tested and therefore does not discourage work by the over 65s.

In terms of **fiscal restraint**, the Australian age pension outperforms NZS. From 2010 to 2050 the fiscal cost of Australia's age pension is expected to increase by 2.2 per cent of GDP[12] from 1.7 to 3.9 per cent, whereas over the same period the cost of NZS is expected to increase by 3 per cent of GDP from 4.4 to 7.4 per cent.[13] However the fiscal cost of SG is significantly larger than that of KiwiSaver. Tax expenditure statistics for Australia produced by the Australian Treasury do not separate tax expenditures for the compulsory SG and voluntary superannuation contributions. However we know that only about 20 per cent of employees make voluntary superannuation contributions.[14] The total tax expenditures from both sources combined were 2 per cent of GDP[15] in 2012. Assuming 80 per cent (100 minus 20) of these were attributable to the SG, implies 1.6 per cent of GDP. This compares with 0.35 per cent[16] of GDP for KiwiSaver. The current combined fiscal costs of the retirement income schemes (age pension plus government-legislated superannuation) is somewhat larger for New Zealand: 4.4 plus 0.35 equals 4.75 for New Zealand, compared with 1.7 plus 1.6 per cent equals 3.3 per cent for Australia.

The **citizenship dividend** from the New Zealand system is higher on the basis that everyone receives the same entitlement from NZS when they reach qualifying age which arguably promotes social cohesion. This is not the case with the Australian age pension since means testing currently results in about 55 per cent of people of pension age receiving the full pension and about 30 per cent of people receiving a part pension.[17] By 2050 in

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[9] Australian Treasury calculations reported by Treasury Secretary Martin Parkinson (2012).
[10] McDonald, K. et al. (2012); Rothman (2007).
[11] McDonald, K. et al. (2012).
[12] Commonwealth of Australia (2010). Intergenerational Report.
[13] Calculations of NZ Treasury in their Long Term Fiscal Model, provided in spread sheet form to the author.
[14] ABS Catalogue 6361.0.
[15] Australian Treasury (2011) Tax Expenditure Statement 2011. Commonwealth of Australia.
[16] Calculations of NZ Treasury in their Long Term Fiscal Model, provided in spread sheet form to the author.
[17] Intergenerational Report, 2010.

Australia, the maturing SG system is projected to imply 30 per cent on full pension and 48 per cent on a part pension.[18]

On the criterion of **income support** NZ superannuation outperforms Australia's age pension based on the higher level of payments (Table 1.1). Both countries' age pension provides an equal degree of **longevity risk pooling**.

A simplistic adding up of ticks and subtracting of crosses in Table 1.2 suggests that the New Zealand retirement income system outperforms the Australian system. This has to be qualified to the extent that it does not include the effects of the Pillar 3 voluntary superannuation policies. That said, the Pillar 3 policies have similar effects to the SG in Australia and KiwiSaver in New Zealand in that they are aimed primarily at promoting voluntary saving and lifetime consumption smoothing. The Australian and New Zealand Pillar 3 schemes would score roughly equally against the policy criteria in Table 1.2, which implies that overall the New Zealand retirement scheme would probably still outperform the Australian scheme on the simplistic scoring metric of Table 1.2.

Table 1.2. Linking policy objectives to age pension and superannuation

| Policy objective	Australia		New Zealand	
	Age pension	SG	NZS	KiwiSaver
Voluntary saving	x	✓	x	✓✓✓
Lifetime consumption smoothing	x	✓	✓	✓✓
Cohort self-funding	x	✓✓✓	x	✓✓
Wellbeing (esp. work incentives for elderly)	x	✓	✓	✓
Fiscal restraint[19]	✓	x	x	✓
Citizenship dividend	✓		✓✓	
Income support	✓		✓✓	
Longevity risk pooling	✓✓✓		✓✓✓	
✓✓✓strong; ✓✓moderate ; ✓limited or weak; x negative; blank is neutral				

1.3   Community support and policy changes

Public confidence in the retirement income system is important for at least two of the policy objectives listed above. It enhances citizenship by promoting social inclusion and cohesion. And people need confidence in the system to allow them to make long term consumption smoothing decisions. Hence the risk that too much change in the system can damage public confidence has to be considered in a cost-benefit analysis of policy changes. In 2012 a number of community organisations in Australia cautioned against excessive tinkering with the system

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[18] Ibid.

[19] The Retirement Commission (2010) includes 'investment promoting characteristics' under this objective, referring to the effect on labour market incentives and capital investment. Here, labour market effects are included under the wellbeing objective.

because of the potential to damage public confidence.[20] As Figure 1 indicates, major superannuation policy changes have been announced almost every year over the past decade in Australia. Similarly in New Zealand, a significant proportion of non-members of KiwiSaver have been deterred by a concern that the Government will keep changing the rules, according to research commissioned by FINSIA.[21] As Figure 2 indicates there was considerable tinkering with the KiwiSaver parameters between 2007 and 2011.

Figure 1.Australia: Major superannuation policy developments
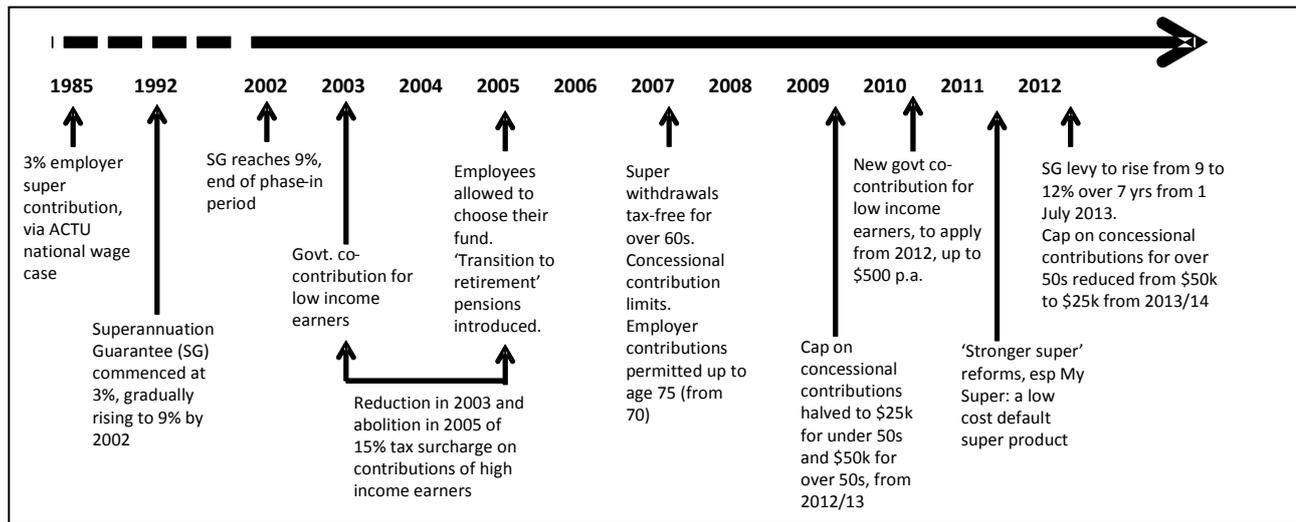
Data sources: APRA (2007). A Recent History of Superannuation in Australia. *APRA Insight, Issue Two*.
Chomik, R. and Piggott, J. (2012). Pensions, Ageing and Retirement Income in Australia: Long-Term Projections and Policies. *Australian Economic Review, 45, 3,* pp. 350-61

Figure 2. New Zealand: Major superannuation policy developments
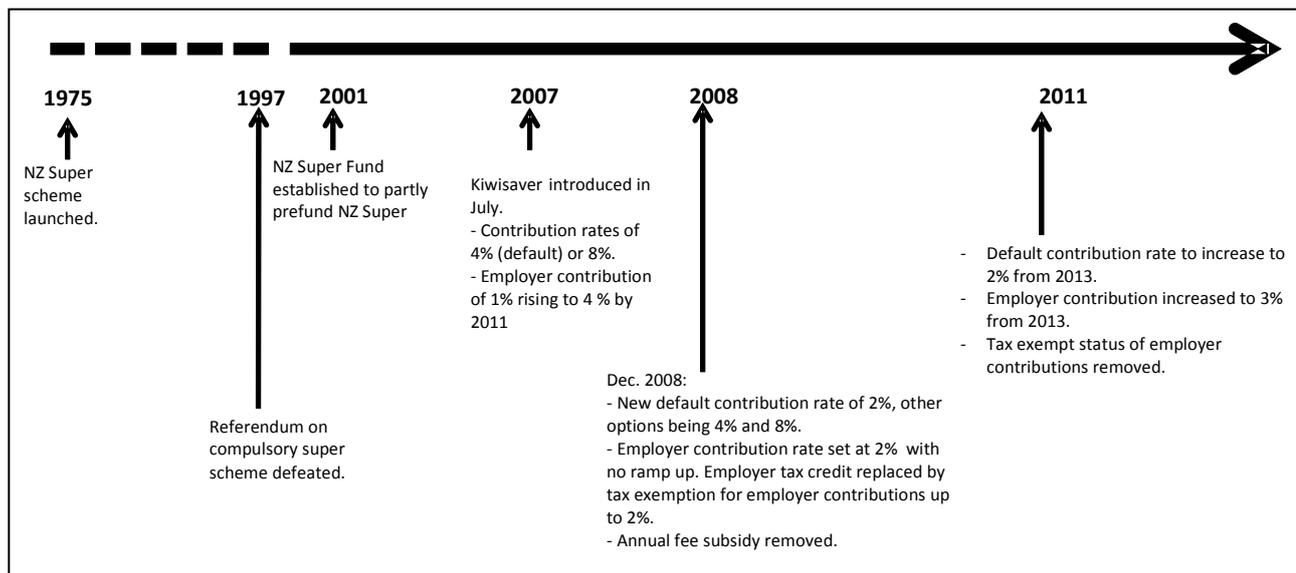
Data source: Hurnard, R. (2012). Mixed Messages: The Future Direction of New Zealand's Retirement Income System. Paper presented at the 19th Colloquium of Superannuation Researchers, University of New South Wales, Sydney, 15th July 2011

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[20] Taxpayers Australia, National Seniors Association and the Association of Superannuation Funds of Australia (ASFA) were all quoted in The Australian newspaper, September 27 2012. At http://www.theaustralian.com.au/national-affairs/funds-caution-labor-over-super-changes/story-fn59niix-1226482507869. Similarly, respected former ACTU Secretary Bill Kelty who was a principal architect of the superannuation scheme cautioned against tinkering: http://www.theaustralian.com.au/national-affairs/change-super-at-our-peril-says-bill-kelty/story-fn59niix-1226483820479
[21] Matthews, C. (2011)

2   The economic costs and benefits of each system.

2.1   Saving

The effect of the retirement income system on saving for retirement has microeconomic and macroeconomic implications. The micro implications concern the level and composition of individuals' saving. The consensus is that individuals under-save from a socially optimal viewpoint due to myopia and/or lack the will-power to save.[22] Also public policies tend to be biased against saving by households. The emphasis on income taxes relative to consumption taxes leads to what tends to be regarded as a 'double taxation of saving' which discourages saving. And the age pension reduces the need to save for retirement, creating a so-called moral hazard.

This under-saving, arising from both market failure and policy failure, is a standard argument for government policy to encourage saving including compulsion of which the Australian Superannuation Guarantee Levy (SGL) is an example. For example Nobel Laureate Peter Diamond argues that: "income in old age is important enough and shortfalls are widespread enough that some interventions seem to me fully warranted."[23] The question remains whether compulsory super is the best form of intervention. One problem with compulsion is that it disempowers individuals in planning for their own retirement and in lifetime consumption smoothing. The opt-out provision in KiwiSaver is a compromise in that it encourages individuals to take responsibility for their retirement and consumption smoothing, while also positively encouraging saving (albeit not as effectively as compulsion – see below in this Section).[24]

The macroeconomic implications concern the effect of retirement saving on national saving. National saving consists of private saving (household saving plus corporate saving) plus public saving (government budget surpluses).[25] If national saving is not sufficient to finance national investment, a current account deficit occurs which amounts to an increase in foreign liabilities.

Evidence[26] indicates that small open economies with net external debt are much more exposed to shocks (to the terms of trade for example) than countries with net external assets. They face risk premiums in their interest rates, and negative shocks have wealth effects on economic growth. Hence foreign liabilities are relevant to macroeconomic risk management, and therefore so is national saving given that the investment-saving balance drives the growth in external debt. New Zealand had foreign liabilities to GDP of 148 per cent (gross) and 71.2 per cent (net) at 30 September 2012, and ran a current account deficit of 4.7 per cent of GDP in the year to that date. At the same period Australia's foreign liabilities were 96 per cent (gross) and 55 per cent (net) of GDP, and its current account deficit was 3.4 per cent of GDP for the corresponding period. New Zealand's external debt is one

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[22] See for example Thaler and Bernatzi (2004).

[23] Diamond, P. (2011, p.6).

[24] Other terms for opt out schemes are 'soft compulsion' (Antolin and Whitehouse, 2009), 'designed default' (Gruen, 2005) 'libertarian paternalism' (Sunstein and Thaler, 2003) and 'soft paternalism' (Glaeser, 2006).

[25]Governments run budget deficits amount to public dis-saving which is subtracted from private saving to get national saving.

[26] Mykhaylova, O. and Staveley-O'Carroll, J. (2012).

of the highest among OECD countries, higher than Australia's and growing faster. It is probably an issue for macroeconomic risk management, and so is household saving.

The key differences between the Australian and New Zealand systems that could potentially impact on the magnitude of household saving are:

i. the universality and level of New Zealand Superannuation (NZS). The Australian age pension is means-tested and, like all means-testing, it creates a trade-off between equity and incentives to work and save. Means-testing allows targeting of benefits to those in need, yet it tends to discourage saving and work effort among the elderly according to calibrated theoretical models and empirical evidence.[27] That said, the effect on aggregate or *lifetime* saving and work effort is not as clear cut, at least for high income households.[28] On balance, the universality of NZS is probably positive for saving relative to the Australian model. However the level of NZS is higher (currently 38 per cent of average male weekly earnings compared with 25 per cent in Australia – see Section 1). This implies a bigger incentive to under-save. So universality and the higher amount of NZS work in opposite directions on the incentive to save relative to the Australian age pension.

ii. The lower contribution rates and opt-out provisions in KiwiSaver compared with the Australian Superannuation Guarantee Levy (SGL). Evidence indicates that KiwiSaver's lower contribution rates and opt-out provisions result in a smaller net effect on household saving compared with Australia's SGL. A recent study found that contributions to KiwiSaver displaced about two thirds of other saving.[29] This is a larger displacement effect than for Australia, which has been estimated at between 10 and 40 per cent.[30] The opt out provision in KiwiSaver means that people are not forced to save more than they would otherwise, and this is reinforced by the lower rates. It is interesting that KiwiSaver has not been as successful as similar opt-out saving schemes in the U.S.[31] One reason may be the relatively high taxation of KiwiSaver. Contributions are taxed as ordinary taxable income at marginal income tax rates and fund earnings at a flat tax rate of 28 per cent, which is relatively onerous compared with Australia's tax treatment (Table 1.1). Also, the halving of the government subsidy (tax credit) to KiwiSaver in 2011 is likely to increase the opt out rate.

iii. Lower tax rates on Australian super contributions (Table 1.1) will tend to encourage saving relative to the New Zealand super tax arrangements.

Also, given that from a macroeconomic risk perspective it is national saving that is relevant, the effects on public saving through tax expenditures must be taken into account. The New Zealand tax expenditures are higher (Section 1), including both NZS and KiwiSaver, which reduces public saving in New Zealand relative to Australia. The New Zealand Treasury study on KiwiSaver concluded that, taking into account the effects on private and

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[27] For parameterised dynamic theoretical models, see Tran, C. and Woodland, A. (2012) and Sefton, J., van de Ven, J. and Weale, M. (2008). Tran, C. and Woodland, A. (2012) also cite extensive empirical evidence for a negative link between means testing of retirement benefits and saving, although the studies do not include Australia.

[28] Sefton, J. et al. (2008) and Kumru and Piggott (2009) found that means-testing may not decrease lifetime saving and labour supply of high income households since in order to replace their income in retirement they have to increase their lifetime labour participation and saving.

[29] Law, D., Meehan, L. and Scobie, G. (2011).

[30] Connolly, E. (2007) and Connolly, E. and Kohler, M. (2004).

[31] One U.S. study reported participation in 401(k) pension plans increased from 49% to 86%: Madrian, B. and Shea, D. (2001).

public saving, the effect of KiwiSaver on national saving "would be marginal at best in the longer term", and that KiwiSaver "may in fact reduce national saving".[32] And worse, this conclusion does not take into account the fact that the fiscal cost of the whole New Zealand retirement system is a little higher, ultimately requiring a higher tax burden which further discourages private saving.

In summary, the universality of NZS is positive for the level of saving, but the more generous NZS has a negative effect on saving relative to the Australian age pension. KiwiSaver has a negative effect on saving relative to the Australian SG and voluntary superannuation system. Hence whether the whole New Zealand retirement system is positive for saving relative to the Australian system is ambiguous in theory and there is no available econometric evidence comparing the two. It is also worth noting that KiwiSaver encourages more individual responsibility in retirement planning.

2.2   Labour participation

Boosting the labour participation of older workers is the most promising strategy to reduce the economic costs of population ageing. The aggregate employment to population ratio (the 'support ratio') for New Zealand is projected[33] to drop by 12 per cent from 2013 to 2060, having already fallen by 3 per cent by 2013 from 2005 and by 4.5 per cent from its peak in 1988. This implies that by 2060 average material living standards of New Zealanders would be 12 per cent lower than they would have been had the population age structure not changed.[34] Simulations[35] indicate that relatively modest increases in labour participation of workers older than 55 could easily reduce the fall in the support ratio by about half. This would amount, in the case of New Zealand, to a drop in the support ratio of only 6 per cent between 2013 and 2050 compared with the simulated 12 per cent.

New Zealand already has high labour participation across all age groups including older workers (Table 2.1). In 2010 New Zealand had the 4th highest overall labour participation rate in the OECD and the 8th highest for over 65 (the corresponding Australian rankings are 11th and 14th).[36] One likely explanation is that the universality of NZS, which is unique among OECD countries, avoids the work disincentive effects of means-testing, at least for older workers. In Australia by contrast, a recent survey found that one in five pensioners who wanted to work had turned down part-time employment because they would have faced a cut in their pension.[37] That said, the effect of pension means-testing in Australia on *lifecycle* labour participation for higher income earners is not clear cut.[38]

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[32] Law, D et al. (2011, p.iv).

[33] Calculated from Statistics New Zealand's Series 5 projection, assuming medium fertility, medium mortality and medium net migration (12,000 net migrants p.a. from 2015) and assuming constant labour participation rates by age.

[34] And assuming that the change in age structure does not affect labour productivity or the consumption share of GDP. For further detail and explanation in the New Zealand context see, for example, Guest (2013) 'Population Ageing, Productivity and Policies: A survey with implications for New Zealand', New Zealand Treasury.

[35] Guest, R. (2005). The simulations use Australian data.

[36] Department of Labour (2010).

[37] The survey was by National Seniors Australia, reported in Spoehr, J., Barnett, K. and Parnis, E. (2009).

[38] As noted in the discussion of saving effects, high income households may in fact have to work harder during their lives, under pension means-testing, in order to replace their income in retirement.

Australia has introduced a number of schemes to try to encourage older workers to remain in the workforce: the Pension Bonus Scheme, the Mature Age Workers Tax Offset, the Senior Australians' Tax Offset and the Pensioner Tax Offset. However the sheer complexity of the rules and the way they interact with the income and assets test of the pension is so confusing that it may well undermine the very aim of the schemes.

Table 2.1. Labour participation rates of older workers in 2010

	Age 55-64	Age 65 plus
New Zealand	75.9	17.0
Australia	62.6	10.7
United States	64.9	17.3
United Kingdom	59.7	8.6

Source: ILO Key Indicators of the Labour Market (KILM), 7th Edition, 2011

Lower labour participation in Australia in the 55-64 years age group can also be partly attributed to the tax-free access to superannuation for people aged 60 years and over. The fact that the average retirement age in Australia is around 60 years of age suggests that Australians are drawing down their superannuation savings tax-free in order to become eligible for the age pension.

Australia's SGL is more harmful for employment than New Zealand's KiwiSaver. The SGL of 9 per cent, gradually rising to 12 per cent from 1 July 2013, is a tax on employment.[39] KiwiSaver's employer contribution of 3 per cent is also a tax on employment but a much smaller one, and it is effectively reduced by the opt out rate which was just under 30 per cent for the four years to 2011.[40]

Also, KiwiSaver withdrawals are tax free at age 65 compared with age 60 for super withdrawals in Australia. Tax free withdrawals have an ambiguous effect on labour participation in theory. On the one hand it encourages workers to remain employed in order to build up a bigger tax free payout. But if people have a target payout, they can reach their target earlier and therefore retire earlier. If the latter effect is stronger, then Australia's earlier eligibility date of 60 will encourage earlier retirement compared with New Zealand.

Hence both key elements of New Zealand retirement system – NZS and KiwiSaver – are probably more favourable for labour participation of older workers than the corresponding elements of the Australian system – the age pension and the SG.

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[39] The negative effect on demand for labour will be only partly offset by higher labour supply. The offset will be greater the more that workers can cut back other forms of saving without affecting total saving, in which case the SGL simply acts as a pay rise. However for many workers the SGL is a forced increase in total saving.
[40] Reported in Trustee News March 2012, at www.sjpp.co.uk/special2/downloads/Trustee_News_Mar_2012.pdf

2.3   Labour productivity

New Zealand's trend labour productivity growth declined over two decades from 1990 to 2010 from over 3 per cent to under 1 per cent p.a.[41] Over that period labour productivity, measured by GDP per hour worked, fell relative to Australia by about 8 per cent. New Zealand was ranked 25th in the OECD for labour productivity in 2008, while Australia was ranked 7th.[42]

Retirement income policy can potentially affect productivity through several channels. One is capital accumulation through saving, since saving allows the accumulation of domestic capital or reduction in foreign liabilities in the case of New Zealand and Australia. To the extent that saving boosts the domestic capital stock it improves labour productivity. The discussion of saving (above) concluded that NZS was positive for saving but that KiwiSaver was negative, with the net effect ambiguous in theory.

The balance between the public pension and employer-funded superannuation can also affect productivity. This is because taxes to fund the public pension fall on both capital and labour whereas employer-funded superannuation is effectively a tax on labour only.[43] Hence the greater reliance on employer-funded superannuation (through the SGL) in Australia relative to New Zealand implies lower taxes on capital relative to labour which increases the capital stock and therefore labour productivity relative to New Zealand.

The quality of the capital stock is a determinant of labour productivity. The higher level of the SGL relative to KiwiSaver could also affect the quality of the capital stock in Australia relative to New Zealand. However the direction is not entirely clear. The SGL could improve the capital stock if it forces some households to cut back their investment in owner-occupied housing which tends to be excessive due to tax biases, thereby shifting investment to more productive uses. The consensus is that New Zealand has over-invested in housing relative to more productive assets, implying lower labour productivity.[44] On the other hand, evidence suggests that New Zealanders have exercised their greater choice of saving allocation by investing more in businesses and farms than have Australians.[45] Presumably they have done this because of expected higher returns compared with superannuation. Higher returns imply a higher quality capital stock and therefore higher labour productivity. Hence there are arguments going both ways in relation to the effect of the compulsory SGL on the quality of the capital stock. These arguments weigh into the debate about introducing compulsion in KiwiSaver.

Labour productivity is also a function of the age distribution of the workforce in that workers of different ages have complementary skills. For example the physical strength, higher education levels and dynamism of young workers are complementary with older workers' skills including more experience, maturity of judgement, reliability, and managing people including mentoring younger workers. Tentative evidence is emerging from

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[41] Savings Working Group (2011).

[42] Department of Labour (2010).

[43] Freebairn, J. (2007) makes this argument.

[44] Savings Working Group (2011)

[45] Based on comparison of the two longitudinal household surveys: HILDA (Australia) and SoFIE (New Zealand), in RPRC Pension, Briefing 2010-5, Auckland Business School. This is discussed further in Section 3.

economic simulations to suggest that workforces that are somewhat older than currently observed in OECD countries could yield favourable age complementarities.[46] If this is true, then New Zealand's favourable retirement income policies toward labour participation of older workers (discussed above) would be positive for labour productivity.

As a final note, although the higher employer contribution rate of the SGL compared with KiwiSaver amounts to a higher tax on labour, there is perhaps a silver lining for labour productivity. This is simply the idea that higher labour costs provide an incentive for firms to look for labour saving technologies which can boost labour productivity.[47]

In summary, the effects of retirement income policy on labour productivity are extremely complex and there is scant empirical evidence. It is not possible to say which system outperforms on this criterion. Nevertheless the question is an important one, since productivity is the only ultimate driver of prosperity.

2.4   Fiscal sustainability

New Zealand's net Crown debt is projected to increase from 37 per cent to 109 per cent of GDP from 2012-13 to 2049-50 given "no policy change", driven by an increase in aggregate government spending excluding financing costs of 6.4 per cent of GDP.[48] This compares with Australia's projected Federal Government debt of only 20 per cent of GDP in 2049-50 on current policies.[49] New Zealand Treasury views 20 per cent of GDP as a sustainable net debt ratio, which would require significant fiscal consolidation over several decades. While this could be achieved with across the board cuts in spending or tax increases, it makes sense to look at the large and growing spending categories such as NZS.

The fiscal costs of NZS are projected to grow by more than 3 per cent over the next 40 years driven mostly by demographic change (Section 1). This compares with projected growth of Australia's age pension of about 2 per cent. This is partially offset by a lower fiscal cost of KiwiSaver compared with Australia's SG (0.35 per cent of GDP compared with 1.6 per cent, noted in Section 1). Also, the fiscal cost of the SG will grow faster than that of KiwiSaver under the current policy of tax free withdrawals at age 60 compared with age 65 under KiwiSaver, given the share of 60-64 year olds to the working age population will grow in Australia by 8.3 to 9.6 per cent from now to 2050. In net terms, New Zealand's retirement income system is currently fiscally more expensive than Australia's by about 1 per cent of GDP (see Section 1). For perspective however, both Australia and New Zealand have among the lowest cost pension systems in the OECD.[50]

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[46] Prskawetz, A., Fent, T. and Guest, R. (2008).
[47] Romer, P. (1990).
[48] New Zealand Treasury data provided to the author.
[49] The 2010 Intergenerational Report.
[50] Pensions at a Glance, 2011, OECD.

A number of options are potentially available to reduce the fiscal cost of NZS but they are mostly ambiguous for national wellbeing. One option would be to introduce means-testing as in Australia for example. This would be unlikely to impact on the old age poverty rate in New Zealand which is one of the lowest in the OECD and much lower than in Australia.[51] However as discussed, means-testing creates work disincentives and distorts saving choices. Another option is to cut the pension level. But the current replacement rate is already low by international standards: 49.6 per cent for those on median earnings compared with the OECD average of 72.0 per cent and 65.9 per cent for Australia.[52] Raising the eligibility age is another option. The current age of 65 is typical of OECD countries but a number of them have legislation, existing or proposed, that increases the eligibility age to 67 over coming decades including Australia, the United States and the United Kingdom. Increasing longevity and health among older people supports an increase in the eligibility age. Analysis by the New Zealand Retirement Commission (2010) found that this option had the potential for "significant cost reduction" (p.115).[53] The Commission found that the combination of a gradual increase in eligibility age to 67 and a lower rate of indexation of the pension level would reduce the fiscal cost by at least 1.5 per cent of GDP by 2035. Allowing people to defer NZS income in return for a higher rate of payment later is a further option. Australia for example introduced such a scheme in 1998 called the Pension Bonus Scheme under which people who worked beyond pension eligibility age received a tax-free bonus on retirement. This scheme was, however, closed to new entrants from September 2009.[54] The New Zealand Retirement Commission considered such a scheme in their 2010 Review but did not recommend it on the grounds that the initial cost saving could be subsequently offset and that it could "test social cohesion".[55]

3   The current and projected future outcomes for retirees

3.1   Superannuation balances

At June 2012 total KiwiSaver fund assets were $12,929 million and other superannuation fund assets were $19,980.[56] Adding these two figures and dividing by total employed persons gives the average total superannuation assets (KiwiSaver plus other) per employed person of $14,777. At the same time in Australia the average total superannuation assets (SG plus voluntary) per employed person were $79,761.[57] Of course this substantial difference overstates the gap in retirement saving because NZS is universal and set at a somewhat higher rate than the means-tested Australian age pension (see Section 1). Nevertheless that would not account for the entire gap – it appears that average retirement savings are higher in Australia, which no doubt partly reflects 20 years of compulsory superannuation in Australia.

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[51] Ibid.

[52] Ibid.

[53] New Zealand Retirement Commission (2010, p.115).

[54] It was replaced by a Work Concession scheme under which, for a person over pension age, half of the person's employment earnings up to $500 a fortnight are ignored under the income test.

[55] New Zealand Retirement Commission (2010, p.116).

[56] Reserve Bank Managed Funds Survey http://www.rbnz.govt.nz/statistics/monfin/c15/notes.html

[57] The superannuation assets figure is from APRA Annual Statistics, June 2012 cited in ASFA Superannuation Statistics January 2013. Total employment figure is from the Australian Bureau of Statistics, Cat 6202.0.

Table 3.1 gives average KiwiSaver balances by age in 2012.[58] Table 3.2 gives average Australian total superannuation balances by age in 2009-10. The figures however are not a good indicator of relative retirement saving by age because the KiwiSaver balances do not include other superannuation which accounts for about 60 per cent of total superannuation assets in New Zealand. Nevertheless, the Tables tentatively suggest that the gap between female and male retirement saving may be lower in New Zealand than in Australia. For example, 25-29 year old females have 92 per cent of the KiwiSaver balances of males, while in Australia they have only 70 per cent of the superannuation balances of males. The figures for 45-49 year olds are 74 per cent for KiwiSaver and 52 per cent for Australia. Perhaps the gender gap in New Zealand is larger for non-KiwiSaver superannuation saving, but this could not be ascertained from available data.

Table 3.1. Average KiwiSaver balances 2012*

2	Males	Females
15-19	1,378	1,176
20-24	3,832	2,824
25-29	5,445	5,008
30-34	6,017	5,445
35-39	7,025	5,613
40-44	7,866	5,815
45-49	8,571	6,353
50-54	9,782	6,891
55-59	9,916	7,563
60-64	10,045	8,034
65-69	10,029	8,101

* Source: Infometrics (2012) 'The Potential Impact of KiwiSaver on the New Zealand Capital Market', Prepared by Infometrics for the Financial Services Council. These data are estimates only, based on a sample of three funds.

Table 3.2. Average Superannuation balances 2009-10, Australia

	Males	Females
15-19	466	349
20-24	5,269	3,557
25-29	15,612	10,922
30-34	29,270	20,194
35-39	40,563	29,167
40-44	62,410	35,611
45-49	89,047	46,315
50-54	120,325	57,775
55-59	166,298	90,783
60-64	198,325	112,632
65-69	155,989	85,731

Source: Clare, R. (2011) 'Developments in the Level and Distribution of Retirement Saving', Association of Superannuation Funds of Australia, September.

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[58] Source: Infometrics (2012).

3.2   Income adequacy/replacement rates

Income adequacy of the retirement systems in both New Zealand and Australia depend on cohort age since neither KiwiSaver nor the SG are mature schemes – KiwiSaver being much less mature having come into effect in 2007 compared with 1992 for the SG. As noted in Section 1, the minimum KiwiSaver rate of 6 per cent (employer plus employee contribution) is lower than the SGL of 9 per cent (gradually rising to 12 per cent by 2020). And coverage of KiwiSaver is lower, with a participation rate of about 60 per cent (up from 45 per cent in 2009)[59] compared with at least 90 per cent employee coverage of the SG.[60] But NZS is more generous than Australia's age pension as discussed earlier.

Altogether, once the schemes are mature, the New Zealand system provides less income support with a replacement rate of 60 per cent (given NZS plus KiwiSaver at 6 per cent total) given contributions from age 25 to 65 for an individual earning the average male salary throughout his/her working lifetime. [61] The SG replacement rate is around 90 per cent of gross earnings for a 30 year old entering the workforce today and who remains on the median wage until retirement at age 67.[62]

These figures are potential replacement rates. Whether retirees will ever turn their potential retirement resources into an actual long term income stream at the potential replacement rates depends on what they do with their superannuation balance (SG or KiwiSaver). Potential replacement rates can be realised if retirees choose to take an annuity or allocated pension. To the extent that they choose to take a lump sum and spend it on housing, pay off debt used to finance prior consumption, gifts to children, travel or other consumption, their actual long term replacement income will be lower. It is too early to say with respect to KiwiSaver. In Australia however the evidence suggests significant leakage of superannuation for purposes just described, in particular paying off or servicing debt. In 2010 in Australia, total household debt among 60-69 year olds was $119,000 for those not retired and $50,000 for those retired.[63] The ratio of debt to superannuation balance for 60-64 year olds was 42 per cent. The main type of debt is owner-occupied housing debt followed by rental property debt.[64] Rental property debt is different in that there is an income stream available to service the debt. But owner-occupied housing debt and other debt must be repaid or serviced from superannuation or other income before any non-housing consumption can be financed.

One could argue that Australians have rationally chosen to borrow for asset accumulation and/or consumption in their working years with a view to using their superannuation to pay off or service their debt at retirement. This

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[59] Mercer KiwiSaver Sentiment Index Study, May 2012. Available at
https://secure.superfacts.com/attachments/Form/KIWISAVER_Sentiment%20index%20study_MAY12.pdf
[60] Australian Bureau of Statistics, Cat 6361.0, 2007.
[61] McDonald, K. et al. (2012).
[62] Australian Treasury calculations reported by Treasury Secretary Martin Parkinson 'Future Challenges: Australia's Superannuation System', Speech to the ASFA 2012 Conference – New Directions Sydney, 28 November 2012.
[63] Kelly, S. (2012).
[64] Ibid. An indication of the break down between the two can be inferred from Table 3.3 below, although it relates to the 2006 HILDA survey not the 2010 survey. Owner-occupied debt is 9.7 per cent of total assets and other real estate debt is 4 per cent.

can be rational in that the SG is not only a mandated quantum of retirement asset accumulation but generally an asset mix that is taken out of their hands by their superannuation fund. If people are unhappy with the quantum of saving they can reduce other saving. Indeed the saving offset is about 40 per cent (See Section 2), which can be financed by borrowing in which case they are bringing forward consumption from retirement to their working years. If people are unhappy with the asset mix in their superannuation fund they can borrow to fund an alternative asset mix. For example, debt-financed property investment provides a more liquid long term investment than superannuation which is locked up until age 60. Indeed such behaviour mitigates the welfare-reducing effects of mandatory superannuation. However it calls into question the net welfare added from mandatory superannuation, especially given the large tax and growing expenditures allocated to superannuation (Section 2).

3.3   Indebtedness/net worth

Superannuation replacement rates are only a very rough guide to resources in retirement. Other sources of retirement income include equity withdrawals from the family home (including downsizing/relocating and reverse mortgages), assistance from family (alive and dead, i.e. bequests) and producing some goods and services at home. For example in Australia in 2010, households aged 50-64 held only 25 per cent of their wealth in superannuation and 53 per cent in property.[65] In New Zealand, although the corresponding age-specific wealth shares were not available, the corresponding shares are likely to be very similar given that the average household in both countries has very similar property assets as a share of total net worth, with Australia a few percentage points higher.[66]

Table 3.3 below presents the most recent (albeit 2006) comparison of wealth and indebtedness for Australian households and New Zealand individuals [67]. Comparisons require qualification due to the different units of analysis – HILDA households and SoFIE individuals; and also the data are not age-specific and hence conclusions about retirement wealth will be less valid the more the lifecycle wealth accumulation/decumulation patterns differ. The data are based on longitudinal surveys in the two countries: HILDA (Australia) and SoFIE (New Zealand).

If we take, from Table 3.3, the assets available to fund a retirement lifestyle as consisting mainly of real estate other than the primary residence, superannuation, business assets, and shares/managed funds, then Australians and New Zealanders had roughly the same proportion of assets to fund retirement i.e. 50 per cent. This understates the New Zealand asset position because of the relative generosity of NZS compared with Australia's

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[65] HILDA survey data, cited in Kelly, S. (2012).
[66] Retirement Policy and Research Centre (RPRC) Pension, Briefing 2010-5, Auckland Business School. http://docs.business.auckland.ac.nz/Doc/PensionBriefing-2010-5-Household-wealth-in-Australia-and-New-Zealand-revised.pdf
[67] The table is replicated from RPRC Pension Briefing 2010-5. The units of analysis are different: the HILDA survey is of households while the SoFIE is a survey of individuals. But a rough comparison can be made on the basis that there were an average of 1.9 'adults' in each SoFIE 'household'.

means-tested pension, meaning that New Zealanders need less retirement assets to yield a given total retirement income. On the other hand, the absolute level of net assets is higher for Australia even though the proportions are nearly equal. The average Australian household had net assets of $A664,867. The average New Zealand individual had $NZ223,022 which is lower even after grossing up the 'individuals' surveyed in SoFIE to equivalent 'household' units as per HILDA and adjusting for the exchange rate. Australians also had somewhat higher debt: 17.6 per cent of gross assets compared with 13.9 per cent, which supports the link discussed above between the higher level of borrowing for property investment in Australia and the forced saving into superannuation.

In summary, Australians have been forced to save more into superannuation and have chosen to save more in property. New Zealanders have exercised their choice by investing more into business assets and farms. Yet the total proportions of assets to fund retirement are approximately the same. This lends weight to the proposition that governments have considerably more control over the form of retirement wealth accumulation than over the total amount.

Table 3.3 Household assets and liabilities: Australia and New Zealand

Asset class	Australia HILDA* 2006		New Zealand SoFIE 2006	
	% gross assets	% net assets	% gross assets	% net assets
Primary residence	42.6	39.8	40.1	46.2
Real estate (non-business)	18.0	17.0	11.2	
Pensions/super	15.8	19.1	1.8	2.1
Businesses & farms	7.7	7.6	19.2	22.2
Shares, managed funds etc	5.6	6.8	8.0	9.3
Bank accounts			4.1	4.6
Cars & other vehicles	10.4	9.7	2.5	16.6
Other assets			13.0	
Liabilities				
Housing	9.7	n.a.	11.5	n.a.
Other real estate (non-business)	4.0	n.a.		n.a.
Businesses/farms	1.5	n.a.	n.a.	n.a.
Student debt	n.a.	n.a.	0.6	n.a.
Credit card debt	0.2	n.a.	0.3	n.a.
Finance companies etc	2.2	n.a.	1.5	n.a.
Total as % gross assets	**17.6**	n.a.	n.a.	n.a.

*Note HILDA is a household survey whereas SoFIE is a survey of individuals. This difference qualifies comparisons, although one can expect patterns across households and individuals to be broadly similar.
Source: Retirement Policy and Research Centre Pension, Briefing 2010-5, Auckland Business School

3.4   Poverty levels

New Zealand has consistently had lower poverty rates among older people than Australia. Using a poverty line of 60 per cent[68] of median income for equivalised[69] households after housing costs, the poverty rate for people over 64 in New Zealand was 7 per cent in 2011, which is considerably lower than the 34.9 per cent for Australia in 2009-10.[70] Poverty rates are much higher for those living alone or renting.[71]

The difference in poverty rates across the whole populations of the two countries is much smaller than the difference for the over 64s. For New Zealand the average poverty rate across all ages was 16 per cent, compared with 20.9 per cent for Australia.[72] Hence a person moving into old age has a much lower poverty risk in New Zealand than in Australia. On a wider international comparison, New Zealand is roughly at the OECD median of poverty rates for the whole population, ranked equal 16th, while Australia is ranked 8th. For the over 64s, the OECD comparisons are problematic because of the bunching of the income of so many New Zealanders around the level of NZS which tends to fall just above or just below the OECD's poverty line, meaning that the proportions in 'poverty' can jump around over time.[73] However, using an alternative poverty indicator – the OECD's indicator of material hardship (deprivation) – New Zealand has among the lowest rates among over 64s in the OECD.[74]

A reasonable conclusion is that NZS has largely achieved its objective of alleviating poverty among the elderly, in absolute terms and by comparison with Australia and OECD countries.

4   Summary evaluation of strengths and weaknesses of each system

This section draws on all of the above material to provide a summary evaluation of each system under the criteria of equity, stability, sustainability, adequacy and economic efficiency. Efficiency is, broadly, about economic costs and benefits including implications for labour productivity and participation (Section 2), saving (Section 2) and the welfare gains from consumption smoothing (Section 1). Adequacy is about replacement rates and the effect of the system on debt and asset accumulation (Section 3). Sustainability is about fiscal implications – the effect on government spending, debt and therefore future taxes (Section 2). Equity and political stability are discussed below before presenting the summary.

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[68] The OECD generally uses a lower figure of 50 per cent. However this equates to a very austere living standard; and a higher level of 60 per cent of median income is used to define poverty in Britain, Ireland and the European Union (ACOSS, 2012: Poverty in Australia, ACOSS paper 194, Australian Council of Social Service, Sydney). Perry (2012) for New Zealand and ACOSS (2012) for Australia adopt both 50 per cent and 60 per cent figures for comparison.
[69] This is a method for adjusting for household size and type (i.e. coupled or otherwise).
[70] Perry, B. (2012) for New Zealand and ACOSS (2012) for Australia.
[71] In New Zealand for example the figure is 28 per cent for the over 64s renting compared with 3 per cent for those who own their home outright; and 12 per cent for the over 64s living alone compared with 6 per cent for couples.
[72] Perry, B. (2012) for New Zealand and ACOSS (2012) for Australia.
[73] The OECD comparisons and the issues therein are drawn from Perry (2012).
[74] Perry, B. (2012).

4.1 Equity

There are two dimensions to equity: between generations (intergenerational equity) and between people of a given generation (intragenerational). Population ageing is driving growth in NZS which has implications for intergenerational equity. Ageing accounts for the projected growth in NZS of 3.9 per cent of GDP between 2012-13 and 2059-60.[75] The reason is simply the growth in the ratio of NZS recipients to workers. The ratio of 15 to 64 year olds to over 64 year olds will halve between 2013 and 2060. An implication is that generations born prior to 1980 are likely to pay half as much as they receive in NZS, because they are paying for fewer NZS recipients compared with the number of future NZS recipients of their own generation.[76]

Australia has a similar decline in 15 to 64 year olds as a ratio of over 64 year olds. But because the fiscal cost of Australia's age pension is projected to increase only half as much as that of NZS as a share of GDP over the next 40 years (Section 1), the intergenerational cost shifting is also only half as much. Also, younger generations in Australia benefit from larger tax concessions than in New Zealand. This is even more so given the recent removal (effectively) of the 15 per cent tax rate on mandatory SG contributions for low income earners in Australia.

However the fact that tomorrow's workers will bear a higher cost of pensions, as a share of their income, than today's workers is not necessarily inequitable. Tomorrow's workers will have higher incomes from which to pay. At projected long run labour productivity growth of 1.5 per cent per annum,[77] average incomes can be expected to be 80 per cent higher in 40 years from now. Given projected growth in NZS of about 4 per cent of GDP, average tax rates would be 4 per cent higher, all else equal. So, if workers' incomes are 80 per cent higher and they are paying a 4 per cent[78] higher tax rate, they have considerably higher disposable income than today's workers.[79] There are counter-arguments, but ultimately intergenerational equity is a philosophical question.[80] The key point is that cost-shifting between generations is not necessarily inequitable.

The intragenerational equity debate about retirement income policy focusses on the distribution of tax expenditures on superannuation and eligibility for the age pension. In Australia much debate[81] was generated by the statistic in the 2008 Henry Review[82] that 5 per cent of individuals account for the 37 per cent of superannuation contributions that attract concessional tax treatment (i.e. a 15 per cent flat tax rate), and hence they are inequitable. There are several counter-arguments. The first is that focussing on the distributional effects of one pillar of the retirement income system is asking the wrong question – the focus should be on the whole

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[75] Authors calculations based on data provided by NZ Treasury.

[76] Coleman, A. (2012).

[77] A reasonable projected long run rate for both New Zealand and Australia.

[78] A change of x per cent of GDP here refers to x percentage points of GDP.

[79] Given an average tax rate in 2013 of 30 per cent of GDP, an increase to 34 per cent along with an increase in gross income of 80 per cent would leave disposable income 70 per cent higher.

[80] For a discussion of intergenerational equity in the context of the fiscal burden of population ageing see, Guest, R. and McDonald, M. (2003).

[81] An example of those arguing that the tax concessions are inequitable see Denniss, R. and Richardson, D. (2012) 'Can the taxpayer afford self-funded retirement?', The Australia Institute, Policy Brief No 42. For counter-arguments see Clare, R. (2012) 'Equity and superannuation: The real issues', ASFA, Sydney.

[82] Australia's Future Tax System. Retirement Income Consultation Paper. Commonwealth of Australia.

system. When the age pension is included, the dollar value of government retirement income support over 40 years of working life is very similar for workers of widely varying incomes. [83] In other words the age pension substantially corrects the skewed distribution of government support through superannuation tax concessions. Second, taking a snapshot of the distribution of tax concessions across the income range is, again, asking the wrong question. A lifetime view is more appropriate. Many low income earners are young, with prospects of much higher incomes in the future. Hence the distribution of tax concessions across lifetime incomes (if such calculations were available) would be much more even than the snapshot distribution at a point in time. Third, since 2008 there have been important restrictions introduced on the tax concessions, most importantly reductions in the maximum contributions that attract the tax concessions (known as concessional contribution caps) from $100,587 to $25,000 per year.

As noted in Section 3, the poverty rate for older (over 64s) New Zealanders is considerably lower than in Australia, due largely to NZS. Across the whole population, income inequality measured by the GINI coefficient is very similar for Australia and New Zealand.[84] Putting these two observations together suggests that the retirement income system in New Zealand is correcting for the inequality that occurs at younger ages more than that of Australia.

4.2   Policy stability

People's income tends to be highly variable over their lifetime. They prefer to have much less variability in their consumption. But in order to smooth their consumption they need to be able to make plans, which requires stable policy. Some change is inevitable but policy stability requires that change occur after due deliberation and that people have adequate time to adjust. The New Zealand retirement income system has been somewhat more stable than the Australian system which has been subject to almost annual changes, particularly in superannuation, since the SG was introduced in 1992 (Figure 1, Section 1).

The changes to the Australian superannuation system in recent years include: repeated erosion of tax concessions over the past four years (noted above), changes to the government co-contribution level and conditions, a proposed increase in the employer contribution rate to 12 per cent (from 2013) and a new and simpler default superannuation product. The 2013 election campaign has seen much speculation about a new tax on withdrawals on large account balances and increases in the contributions tax for high income earners. Changes to the Australian age pension have included a steeper taper in the income test but relaxation of asset taper, and an increase in age of eligibility for the age pension. Many of these changes have some merit individually, but the cumulative effect is to erode confidence in the ability to make durable lifetime saving plans.

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[83] Knox, D. (2010).

[84] The GINI coefficient is a summary measure of income inequality. A higher number indicates more inequality. According to Perry (2010), the OECD's GINI coefficient for 2008-9 was 0.33 for New Zealand and 0.34 for Australia.

New Zealand has seen somewhat less tinkering over the last two decades at least (see major changes in Figure 2, Section 1). NZS in particular has been relatively stable. The continual debate, however, about whether to make KiwiSaver compulsory is eroding confidence and arguably inhibiting lifetime consumption smoothing. Views seem to have changed on the compulsion issue since the 1997 referendum rejected compulsion with a 93 per cent 'no' vote. A published survey of 1,000 people in 2011 found that 57 per cent favoured compulsory KiwiSaver.[85] Politicians are divided too, with Revenue Minister Dunne in 2012 declaring his support for compulsion while the Labour Party until recently was opposed to the idea. The balance of academic opinion, however, remains opposed to compulsion on the basis that it is unfair on low income earners and distorts saving of others in ways that reduce economic welfare; these arguments outweigh the benefits from the modest increase in saving arising from compulsion.[86]

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[85] UMR Research survey in Matthews, C. (2011) .
[86] For example: Guest, R. (2010) and Freebairn, J. (2007).

Table 4.1 Summary evaluation

Criterion	Which system is better?	Comment
Equity	Australian (intergenerational equity) New Zealand (intragenerational equity)	More intergenerational cost shifting in NZ, since the fiscal cost of NZ super is approximately twice that of Australia's age pension. But less poverty among over 65s in NZ; and slightly less inequality in NZ across all ages. Note: whether one system is more equitable is ultimately subjective.
Stability	New Zealand	Less policy tinkering with NZS than with Australia's age pension. Slightly less tinkering with KiwiSaver over recent years compared with SG in Australia, but continual speculation about introduction of compulsion creates uncertainty.
Economic efficiency	New Zealand	i. *Labour participation/employment:* NZ system outperforms. Universality of NZS avoids the work disincentive effects of means testing, at least for older workers. And KiwiSaver is a smaller tax on employment than is the SG. ii. *Labour productivity:* Effects are extremely complex and it is not possible to say which country's system is better on this criterion. (See discussion in Section 2.) iii. *Saving:* Neither country's system is a clear winner in achieving a more efficient level and allocation of saving. The universality of NZS is on balance likely to be positive for the level of saving but the relative generosity of NZS has the opposite effect. KiwiSaver has a smaller positive effect on saving relative to Australia's SG and voluntary superannuation system. iv. *Consumption smoothing:* greater choice in KiwiSaver gives NZ the edge on this criterion. *Summary:* the NZ system outperforms on labour participation and consumption smoothing, and it's a dead heat on the other two criteria.
Sustainability	Australia	NZS is fiscally more expensive than Australia's age pension but KiwiSaver is cheaper. In net terms NZ's retirement income system is currently more expensive by about 1 per cent of GDP. The gap between the cost of NZS and Australia's age pension will grow, but will be offset by lower relative cost of KiwiSaver due to tax free super payouts available at an earlier age in Australia (age 60).
Adequacy	Australia	Once mature, the NZ system will provide a replacement rate of 60 per cent (given NZS plus KiwiSaver at 6 per cent total) given contributions from age 25 to 65 for an individual earning the average male salary throughout his/her working lifetime. For Australia, the SG replacement rate will be around 90 per cent of gross earnings for a 30 year old entering the workforce today and who remains on the median wage until retirement at age 67.

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