The Potential Impact of KiwiSaver on the New Zealand Capital Market

for Financial Services Council

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Prepared by Infometrics Ltd

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EXECUTIVE SUMMARY

A Save as You Go (SAYGO) retirement savings scheme such as KiwiSaver can produce a number of beneficial economic effects. The main findings drawn out in this paper are summarised below.

1. From evidence to date it seems that KiwiSaver has had a net positive impact on the household saving rate. The extent to which it has raised the total national rate of saving is as yet unclear.

2. However, the rate of national saving is not the key issue. More important is the effect on the accumulated stock of national savings. Evidence from Australia suggests that a pool of retirement savings raises the quality of investment by steering more of it into new physical capital which increases the productive capacity of the economy, as opposed to the purchase of existing assets such as real estate (which has been the tendency amongst New Zealanders).

3. Evidence from actual investment by KiwiSaver providers suggests that the long term commitment of KiwiSaver savings is enabling funds to invest in fast growing and unlisted companies that have the potential to raise exports and employment. With the growth of KiwiSaver contributions the potential for such activity, including establishing major international businesses from a New Zealand base, will be even greater.

4. KiwiSaver balances can be used for a deposit on a first home. In just the first few years of availability during 2012 an estimated 10,000 New Zealanders used KiwiSaver balances to make a deposit on some $3 billion worth of homes.

5. The FSC has modelled an enlarged KiwiSaver scheme, labelled Option B, in which new members start with a total (employer plus employee) contribution rate of 1% in 2015, rising by 1 percentage point per annum to reach 10% by 2024. Existing KiwiSaver members remain on their current contribution rate until the rate for new members reaches their rate, at which point they move on to the contribution rate path for new members. Coverage for employees is universal, with some exemptions. An alternative Option A is also modelled in which coverage remains as it currently is (about 50% of employees) but the contribution rate rises as in Option B

6. Under Option B Funds Under Management would reach over $700 billion by 2066. KiwiSaver providers who are members of FSC expect that this would inject an extra $52 billion into the New Zealand stock market, compared to carrying on KiwiSaver with its current level of contributions and coverage. Absent any other changes the size of the stock market as a percentage of GDP would rise by over 8 percentage points, compared to its current 30-40%.

7. A deeper domestic capital market also enhances the resilience of the economy to adverse shocks such as the Global Financial Crisis, as the savings continue to flow into investment despite the short term movement in share prices. It would also counter the decline in savings that might eventuate later this

century as population aging results in a growing cohort of retirees draw down their savings.

8. Furthermore, due to a home country bias (investors wanting higher returns to invest outside their home country), the cost of capital to New Zealand can be expected to be somewhat lower if there was a larger pool of domestic savings.

9. The financial services industry currently employs almost 60,000 people and is able to pay above average wages because it adds more value per employee than most industries in the economy. Employment would likely grow with greater KiwiSaver coverage and higher contribution rates.

10. By increasing the capital available for each worker it would be expected that a deeper domestic capital market brought about by KiwiSaver would help increase labour productivity and wage rates.

1. RETIREMENT SAVING

New Zealand's KiwiSaver

KiwiSaver, begun in 2007, is a Save as You Go (SAYGO) retirement savings scheme. Under a SAYGO scheme savings are accumulated during an individual's years in paid employment and then paid out in retirement. In contrast, under a Pay as You Go (PAYGO) scheme like New Zealand Superannuation retirees receive a pension from the government that is paid by taxing the earnings of (younger) employed people.

KiwiSaver is a voluntary retirement saving scheme. New members receive a $1,000 kick-start and all members who contribute at least $1043 per annum receive an annual member tax credit paid by the Government.

Contributions to KiwiSaver are deducted from wage and salary earnings at a rate of either 2%, 4% or 8% (selected by the individual). Employers must contribute an additional minimum 2% of earnings. This will rise to 3% along with a 3% minimum for employees from 1 April 2013.

Currently some two million New Zealanders have enrolled in KiwiSaver, but some of these accounts are currently suspended and contributions are not being made into them.

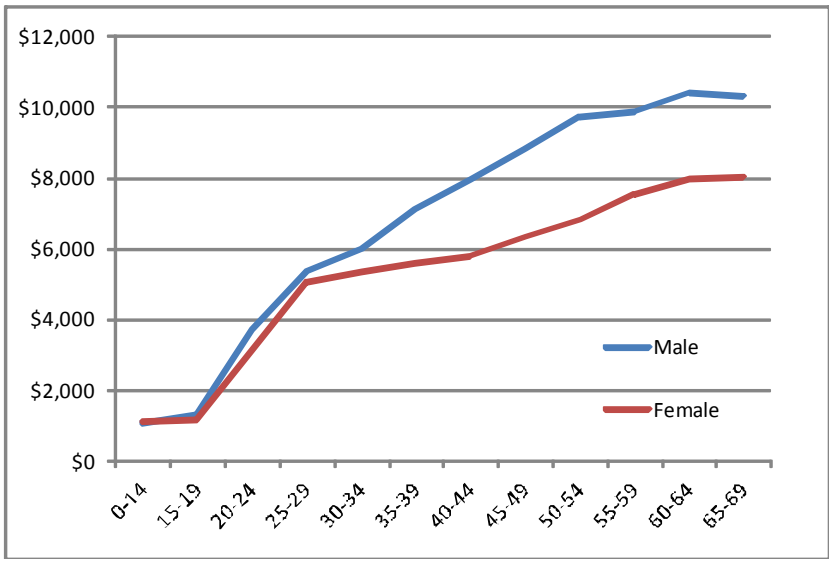
Most people currently contribute at the 2% or 4% rate, with another 2% being provided by the employer. The average total contribution rate is about 5% which is well below the level needed to fund a comfortable retirement in the absence of other income. A contribution rate of around 10% would deliver on average, an extra $300 per week in retirement over and above New Zealand Superannuation.

KiwiSaver schemes are managed by private sector companies, between which individuals may choose. If no deliberate choice is made an individual is randomly allocated to one of six default providers.

KiwiSaver savings are inaccessible until the age of eligibility for New Zealand Superannuation (currently 65), although earlier withdrawal of funds may occur in cases of permanent emigration, severe financial hardship, serious illness or for the purchase of a first home.

Figure 1 shows estimated average KiwiSaver balances by age and sex, based on the data of three FSC members that operate KiwiSaver funds. Thus the data may not be representative and should therefore be seen as preliminary.

Figure 1: Average KiwiSaver Balances 2012



Pension Contribution Rates

The average KiwiSaver total (employee plus employer) contribution rate in 2011/12 was 5.2% of earnings. This is likely to rise when the minimum contribution rate is lifted to 6% (3+3) in 2013. As shown in Table 1, even at 6% the rate is well below other countries that have 'Tier 3' (personal saving and investment plans) universal saving schemes.

Table 1: Pension Contribution Rates

	Contribution Rate
Australia	9% (rising to 12%)
Denmark	11%
Ireland	15%
USA	12%
Germany	20%
Singapore	28%*
New Zealand**	voluntary 6% from 2013

* Includes health care costs.

** Contributions are not compulsory. Minimum voluntary contributions will rise to 6% (3+3) in 2013.

Source: Financial Services Council (2012) *Pensions for the Twenty First Century.*

Expressed as a proportion of GDP the 5.2% corresponds to about 3.1% – for those contributing. However, with a take-up rate of around 50% of those eligible the average national contribution rate is less than 1.5% of GDP.

Table 2 shows a somewhat higher figure (2.3%) for New Zealand as it includes other private and public retirement saving schemes.

New Zealand's figure is on a par with countries such as Canada, the UK and the USA, but considerably below countries such as Australia, Chile, Finland and the Netherlands.

Table 2: Funded Pension Contributions as Percentage of GDP*

Country	2009	2010	2011
Australia	8.43	7.65	7.49
Austria	0.37	0.43	..
Belgium	0.39	0.37	0.39
Canada	3.25	2.82	2.91
Chile	3.89	3.90	3.65
Czech Republic	0.85	0.84	0.85
Denmark	0.55	0.55	0.53
Estonia	6.89	6.80	5.14
Finland	9.75	9.71	9.62
France	0.05	0.05	..
Germany	0.44	0.48	0.30
Greece	0.01	0.01	0.01
Hungary	1.68	1.30	0.31
Iceland	6.60	7.05	6.34
Israel	2.05	2.20	2.42
Italy	0.58	0.58	0.58
Korea	0.28	..	0.81
Luxembourg	1.17	0.85	0.23
Mexico	0.95	0.97	0.95
Netherlands	5.31	4.85	4.93
New Zealand	1.90	2.36	2.28
Norway	0.51	0.44	0.44
Poland	1.61	1.64	1.04
Portugal	0.59	0.47	0.71
Slovak Republic	6.23	1.60	1.29
Slovenia	0.42	0.36	0.40
Spain	0.56	0.51	0.46
Switzerland	8.37	8.56	8.41
Turkey	..	0.86	0.96
United Kingdom	2.70	3.14	..
United States	3.80	..	..

*Source: OECD StatExtracts. Funded pensions exclude Pay As You Go schemes.

Where is Our Money Invested?

Tables 3 and 4 present some information on the existing sizes of managed funds and their portfolio composition. By March 2012 KiwiSaver assets had risen to $12.5 billion. In 2009 all funds except KiwiSaver funds lost ground, but since then have largely managed to hold their position, with the exception of life insurance funds.

Table 3: Managed Fund Assets ($m)

	2008	2009	2010	2011	2012
Life insurance	7,321	6,302	6,195	5,842	5,903
KiwiSaver	752	2,725	5,776	8,970	12,503
Other superannuation	21,162	16,597	19,666	20,518	20,304
Unit trusts & GIFs	17,595	14,772	16,710	16,582	15,678
Other funds managed	18,990	18,612	19,942	19,982	20,174
Total assets	65,819	59,008	68,289	71,894	74,562

Table 4: Managed Fund Assets by Product, March 2012 ($m)

	New Zealand				Overseas		
	Fixed Interest*	Equities	Property	Other	Fixed Interest	Equities	Other
Life insurance	3,186	648	264	17	603	1,184	2
KiwiSaver	4,863	1,195	332	4	2,202	3,713	193
Other super.	4,299	1,961	629	44	4,946	7,678	748
Unit trusts & GIFs	6,435	1,332	649	41	2,142	4,523	556
Other funds	10,730	3,304	458	52	390	5,175	67
Total assets	29,513	8,440	2,332	158	10,283	22,273	1,566

*includes deposits and Residential Mortgage Backed Securities

In terms of the investment mix in 2012, the majority of managed fund assets, 53% by value, are held in the form of fixed interest securities and related products. About 41% is invested in equities. For KiwiSaver funds the equity proportion is marginally lower at 39%. The New Zealand proportion of this is also lower than for all managed funds. Thus at this stage there is little to suggest that KiwiSaver funds are having a disproportionate effect on the supply of savings to the domestic stock market. In part this reflects the fact that the default funds have to be invested conservatively, which inevitably means a higher proportion in bonds and cash. However, the composition may change over time as the funds' growth eventually over-rides the initial displacement effect on other types of saving and KiwiSavers opt into more growth-focussed investment options. We look at this below.

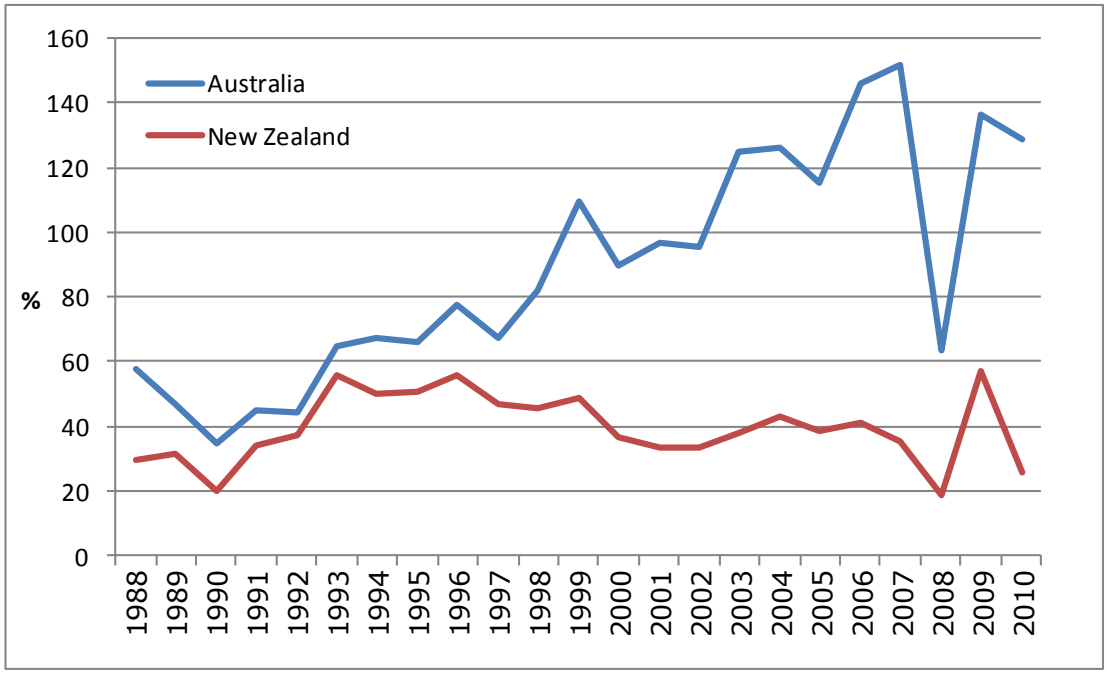
2. A LARGER POOL OF DOMESTIC SAVINGS

Stock Market Capitalisation and GDP

Figure 2 shows stock market capitalisation as a percentage of GDP for Australia and New Zealand. The Australian equivalent of KiwiSaver, the Superannuation Guarantee, started in 1992 at a low contribution rate, but with compulsory coverage. The contribution rate is now 9% and will rise to 12% in future.

The different paths are startling, with a large divergence occurring from about 1997. The Australian SAYGO scheme has likely contributed to this. Allen Consulting[1] state that the proportion of Australian equities held by superannuation funds grew from 8.5% in 1998 to 16.5% in 2007, rising to an estimated 29% of total market capitalisation of the ASX in 2009-10.

Figure 2: Stock Market Capitalisation as % of GDP



Source: World Bank

Greater Resilience

A larger pool of domestic savings, with retirement savings at the core, will enhance the ability of the economy to withstand negative external shocks such as the recent (and ongoing) global financial crisis (GFC). With regard to Australia Allen Consulting (op cit) note:

[1] Allen Consulting (2011), *Enhancing Financial Stability and Economic Growth: The Contribution of Superannuation*. Report to the Association of Superannuation Funds of Australia.

> Australia's mature superannuation industry played a key role in helping firms maintain funding and liquidity during the height of the crisis. A key part of the financial crisis was the withdrawal of liquidity in overseas debt markets. During that time Australian companies were able to raise equity in Australian capital markets largely thanks to off-market purchases substantially funded by superannuation funds.

Clearly one cannot attribute all of Australia's relatively good economic performance, both during the GFC and more generally over the last two decades, to compulsory retirement saving (and indeed Allen Consulting do not), but there is no disputing that countries with a low pool of domestic savings are more exposed to contractions in international capital markets and may face a higher cost of capital due to home country bias – whereby investors normally desire a higher return to invest outside of their own domestic market.

More generally, given a degree of home country bias in investment portfolios, coupled with a change in the composition of savings towards longer term investment horizons, superannuation savings provide better alignment with corporate and public funding needs. Again from Allen Consulting:

> Australians' superannuation is invested in many different types of asset classes, but especially in corporate equities (on the Australian stock exchange) and bonds.
>
> Australian superannuation is also playing an increasingly important role in funding public infrastructure investment across Australia.

Where do KiwiSaver Funds Go?

First home purchase

As noted above, KiwiSaver balances cannot be withdrawn before age 65 except in cases of permanent departure from New Zealand, to make a deposit on a first home, or in cases of severe hardship or death.

In 2012 $57m was withdrawn from KiwiSaver funds for first home purchases,[2] probably representing at least 10,000 buyers. At an average capital value of say $300,000 (as there are maximum values of $300,000 and $400,000 depending on location, for eligibility for such withdrawals) the total capital value of properties that were purchased through leveraging of KiwiSaver savings was some $3 billion. Of course how much of this would have occurred without KiwiSaver is not known, but in times of tighter bank lending it presumably facilitates home ownership for first home buyers.

Equity investment

A number of KiwiSaver providers who are members of FSC have acted on the lower redemption risk of KiwiSaver savings by supporting longer term equity investments in companies such as Bathurst Resources, Fletcher Building, Freightways, Metlifecare, Mighty River Power, Nuplex, Pacific Edge, Scott Technology, Skellerup Holdings, Sky City and Tourism Holdings. (More information is provided in Appendix A). These investments include unlisted entities that have the potential for rapid growth in both exports and employment.

[2] Financial Markets Authority (2012): *KiwiSaver Report for Year ended 30 June 2012.*

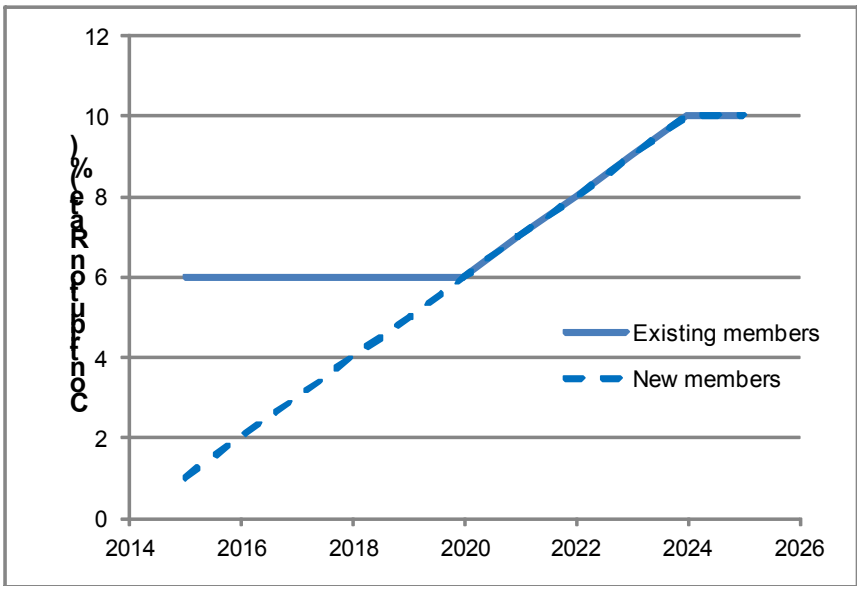
What Stepping Up KiwiSaver Contribution Rates and Coverage would Mean for Investment.

Coleman (2006)[3] argues that the important aspect of a Save As You Go (SAYGO) scheme for retirement savings is that it produces a pool of savings – a stock of assets – that produces an annual return.

We look at three KiwiSaver scenarios and their possible effects on the national savings pool - the Funds Under Management:

1. No Change: Continuation of existing KiwiSaver. The current average contribution rate is about 5%, but in 2013 the minimum contribution rate will rise to 6% (3+3), implying an average total contribution rate of about 6.5%. The percentage of the population participating remains at about 50% and the annual average government contribution is $550 per member (based on current data).
2. Option A: As in the No Change scenario except that the contribution rate for existing contributors rises by 1 percentage point per annum from 2015 up to 10% (5+5).
3. Option B:[4] Universal coverage of people aged 25-64, other assumptions as above, except new members begin with a contribution rate of 1% in 2015 rising to 10% in 2024 in annual steps of 1%. Contribution rates of existing KiwiSaver members do not rise until the contribution rate for new members has reached the same level. For example an existing member with a contribution rate of 6.0% will not see an increase to 7% until 2021 when the rate for new members will have risen to 7%. See Figure 3.

Figure 3: Total Contribution Rates under Option B



[3] Coleman, A. (2006), *The Life-Cycle Model, Savings and Growth*. Reserve Bank of New Zealand.

[4] This is proposed in Financial Services Council (2012) op cit.

For modelling purposes we adopt the 6.5% average for existing members and we assume that 20% of earners are exempted for various reasons, which is somewhat conservative – see box below on the Australian Superannuation Guarantee. Other modelling assumptions are:

- Rate of return after taxes and fees is 3% pa.
- Labour productivity increase is 1.5% pa. (Whilst this is consistent with the assumptions used in long term modelling by Treasury, it is somewhat higher than the 1.1%, 40 year historical average calculated by Treasury.[5] The 1.5% productivity assumption used here is consistent with that used in the FSC's earlier work (op cit) on the relative benefits of SAYGO versus PAYGO funding for pensions, where it was used to show that the findings would be robust under more testing assumptions. The assumption has the effect of understating the accumulation benefit of SAYGO relative to PAYGO).
- Population growth is the SNZ 'Very Low Mortality' scenario.

Coverage under the Australian Superannuation Guarantee

The Australian Superannuation Guarantee although compulsory, has a number of exemptions, notably for employees who earn below the tax free threshold and for self employed people who are not remunerated through wages and salaries. According to ABS (2009)[6] in 2007 91% of employed people had superannuation coverage, although this corresponds to a lower 71% of people aged 15 and over.

Based on the HILDA survey, Connolly (2007)[7] estimates that 6.5% of households do not have a member with compulsory pension contributions.

More recently, in ASFA (2012)[8] the proportion of workers (wage and salary earners and the self-employed) with no superannuation coverage is estimated at 16.5% in 2009/10. This proportion seems to be based on tax data so would exclude some non-earners. On the other hand, it is probably a snapshot so would include people who had no contributions in that particular year, but may have had contributions in other years.

Figure 4 and Table 5 show the projected paths for the growth of Funds Under Management for the three scenarios. Under Option B Funds Under Management would be larger than GDP by the mid 2030s and up to almost 150% of GDP by 2066.

We might expect a proportionately larger stock market capitalisation as a result. Based on feedback from three FSC KiwiSaver providers the average proportion that would be allocated to domestic equities in a balanced fund is projected to be about 13%, slightly higher than the current proportion of around 10%. See Table 6. It is

[5] Karacaoglu, G. (2012*): How does the Treasury's Long Term Fiscal Model work, and what is our initial analysis showing*? Paper delivered at Affording Our Future Conference 2012, Victoria University of Wellington, 10 December.

[6] Australian Bureau of Statistics (2012): *Australian Social Trends 2009*.

[7] Connolly, E (2007): The Effect of the Australian Superannuation Guarantee on Household Saving Behaviour. Reserve Bank of Australia *Research Discussion Paper 2007-08*.

[8] Association of Superannuation Funds of Australia (2012): *The Equity of government assistance for retirement income in Australia*. February.

difficult to say, however, whether the shift is primarily attributable to greater access to long term savings or to the rebalancing of portfolios that can be expected as the GFC abates.

Figure 4: Accumulation of FUM

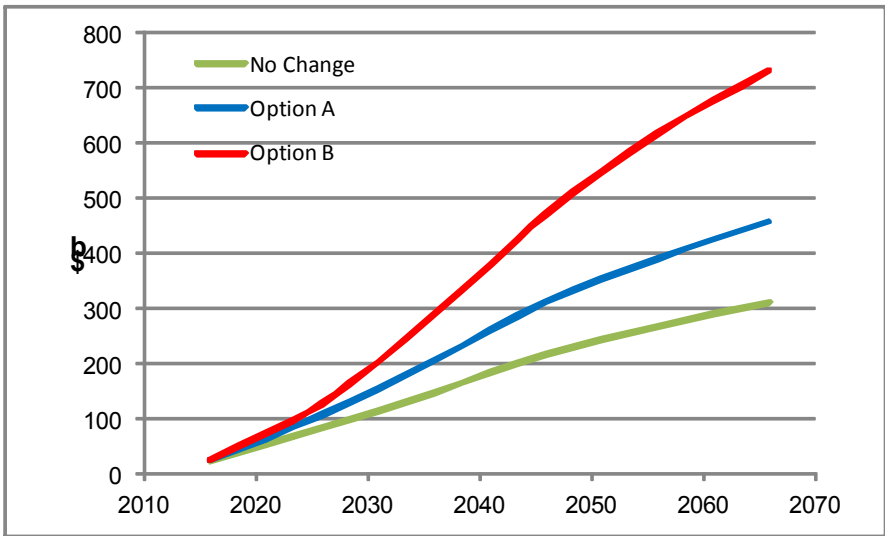


**Table 5: FUM and GDP Projections*
($ billion)**

Year	Funds Under Management			GDP	%GDP
	No Change	Option A 1%/yr & existing voluntary participation	Option B 1%/yr & universal coverage**		Option B
2012	13	13	13	202	6%
2016	22	22	22	241	9%
2026	80	104	125	293	43%
2036	146	203	286	355	81%
2046	216	310	469	436	107%
2056	266	389	616	527	117%
2066	312	457	731	624	117%

* Excluding any savings held by those over 65. Figures may change as scenarios are refined with more information on existing KiwiSaver balances. We assume that the typical portfolio in the future is a balanced rather than a conservative fund. The rate of return after taxes and fees is assumed to be 3% pa.

** We assume that 80% of the workforce participates in KiwiSaver under the universal Option B scenario.

Nevertheless, assuming 95% of the 13% would be channelled into listed equities, the addition to the market capitalisation of the New Zealand stock market in 2066 under the various scenario can be estimated. See Table 7.

Option B would inject an extra $90 billion into the New Zealand stock market, equivalent to 14.5% of GDP, and compared to the current capitalisation of the stock market at about 30-40% of GDP – refer Figure 2. The incremental effect of Option B

over the No Change scenario is approximately $52 billion, equivalent to 8.3% of GDP in 2066. It would also mean an extra $3 billion or so available for investment in unlisted entities, growing companies that are expected to list within the next five years.

An analogous calculation for debt capital yields an increment of $67 billion between the No Change and Option B scenarios.

Thus the growth of KiwiSaver balances from increased contributions at 10% of income and universal coverage would provide a significant boost to the amount of capital available for investment in New Zealand companies, including those that have the greatest potential for exporting and providing employment, and for boosting incomes through raising the productivity of labour.

Table 6: Composition of FUM under Expanded KiwiSaver

	New Zealand			Overseas		
	Fixed Interest	Equities	Property	Fixed Interest	Equities	Other
KiwiSaver in 2012	38.9%	9.6%	2.7%	17.6%	29.7%	1.5%
Projected under Option B (Balanced)	16%	13%	11%	22%	33%	5%

Table 7: Impact of FUM on NZ Stock Market in 2066

	$ billion	% of GDP
2012	1.2	0.6%
No Change	39	6.2%
Option A	56	9.0%
Option B	90	14.5%

3. THE NATIONAL RATE OF SAVING AND INVESTMENT

Previous sections looked at the accumulated pool or stock of savings. It is important not to confuse the stock of savings with the annual rate of saving (measured as a percent of GDP). While the saving rate shows our propensity to save in any given year, it will vary over time as the age structure of the population changes. It is the stock of savings that determines levels of productive investment.

Law et al (2011)[9] find that 64% of saving going into KiwiSaver is displacing other forms of saving. Thus KiwSaver has probably increased total household saving. Westpac (2012)[10] show a rise in household saving levels since the beginning of KiwiSaver in 2007, but do not specifically attribute it to KiwiSaver.

Law et al also note that the effect of KiwiSaver on national saving levels (i.e. household, business and government saving combined) to date has been marginal at best and could be negative, a result driven largely by the cost of KiwiSaver to the government which is currently being financed by borrowing.

Over the longer term the picture could be different. In Australia a SAYGO scheme for retirement saving began in July 1992 with a mandated 3% contribution rate, which has since risen to 9% and will reach 12% in future. Connolly (op cit) finds a net increase in household net wealth (i.e. assets including savings less liabilities such as mortgages). Is there any evidence of macroeconomic impacts, particularly compared to the New Zealand situation?

The graphs below compare national saving, investment and the external current account balance in the two countries.

Without the benefit of any econometric analysis, we make a number of observations:

1. Figure 5: Saving rates in Australia have always been somewhat higher as a share of GDP than in New Zealand. However, the gap seems to have started widening since about 2006. With an aging population and higher proportion of the population heading into retirement, one would expect a lift in New Zealand's saving rate over the next 20 years, perhaps followed by a longer term drop as retirees start to cash-up their investments.

2. Figure 5: The introduction of compulsory saving in Australia in 1992 does not seem to have brought about a marked increase in the national saving rate, although it arrested the previous decline. Volatility is less than in New Zealand.[11]

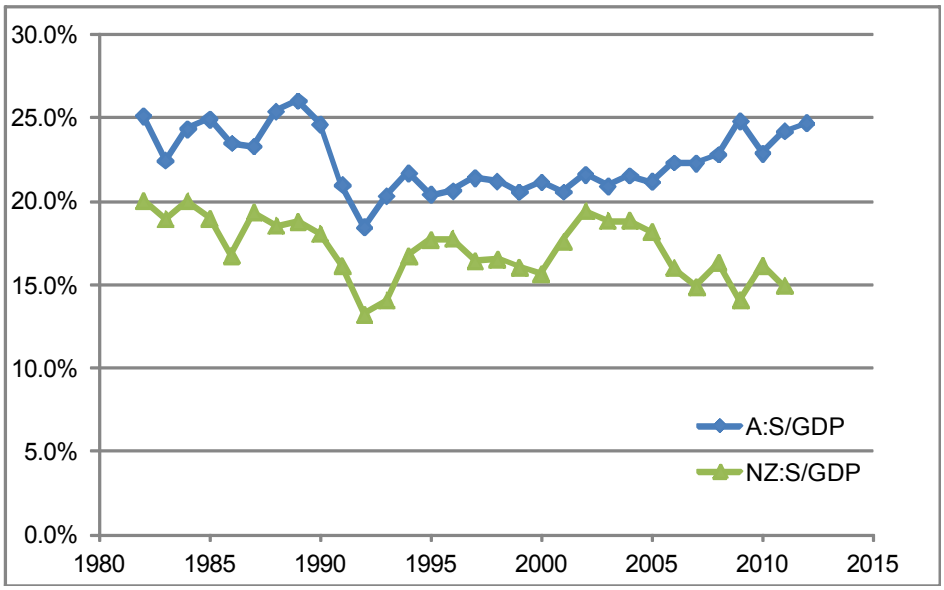
[9] Law D., L. Meehan & G. Scobie (2011), KiwiSaver: An Initial Evaluation of the Impact on Retirement Saving. *New Zealand Treasury Working Paper 11/04*.

[10] Westpac (2012): *Save us! How much are New Zealanders really saving?* August.

[11] It is implicitly assumed that Australia and New Zealand have similar public provision of health. Large differences could affect saving rates.

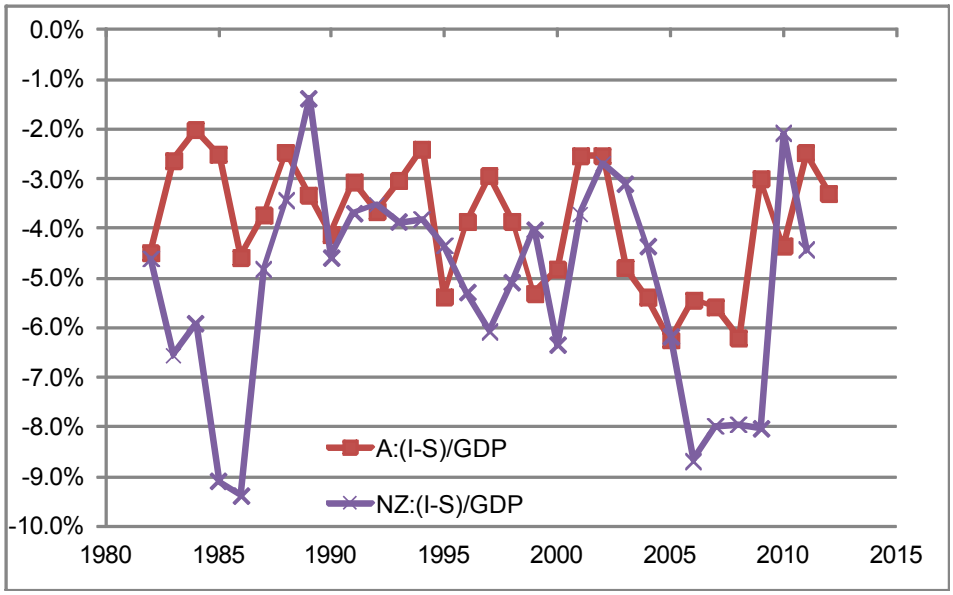
3. Figure 5: Consistent with Law et al (2011), there is no evidence of KiwiSaver causing a lift in New Zealand's national saving rate to date, although of course in the absence of KiwiSaver there might have been even lower saving.

Figure 5: National Savings/GDP for Australia and New Zealand



Source: SNZ and ABS

Figure 6: Current Account Balance/GDP for Australia and New Zealand



Source: SNZ and ABS

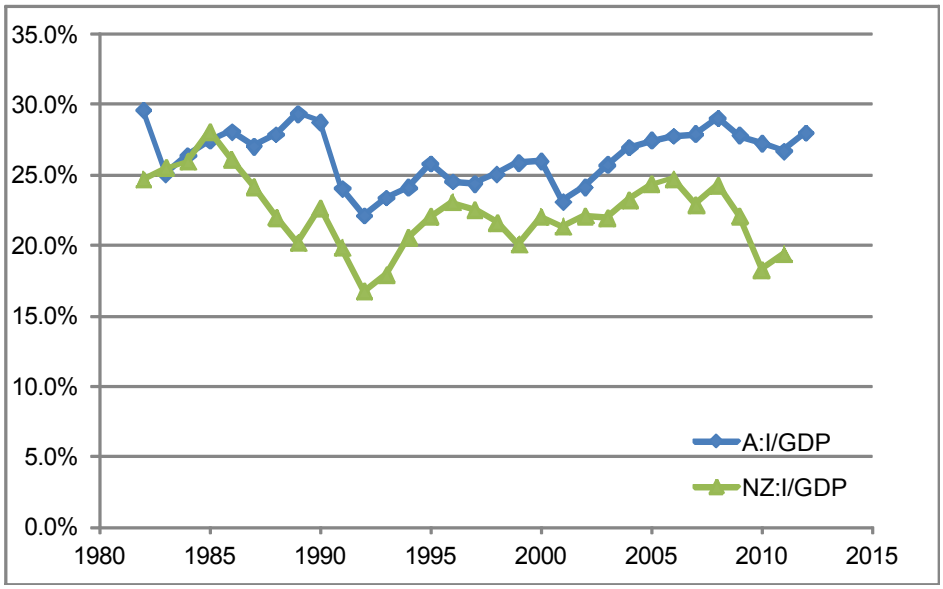
4. Figure 6: The current account balance (CAB) is an indicator of the extent to which domestic savings are funding domestic investment in capital stock. A deficit implies a reliance on foreign savings to make up the difference[12]. Apart from the mid 1980s and the period 2006-2009, the current account balances (CAB) as a share of GDP of the two countries have been very similar.

[12] The CAB equals gross fixed capital formation (including stock change) less saving.

5. Figure 6: There is no clear effect of compulsory retirement saving on Australia's CAB. Perhaps compulsory saving prevented an even bigger decline in Australia's CAB during the 2006-2009, but one would want to test this theory against other explanations.

6. Figure 6: With good terms of trade, a reasonably competitive exchange rate (on a TWI basis), weak domestic demand, and generally favourable growing conditions, a healthier New Zealand CAB over recent years might have been expected. Beyond 2012, as the New Zealand economy sees more economic growth it will be interesting to see whether its balance of payments deteriorates faster than the Australian balance of payments.

Figure 7: Investment/GDP for Australia and New Zealand



Source: SNZ and ABS

7. Figure 7: As with saving rates, investment as a proportion of GDP has almost always been higher in Australia than in New Zealand, although the difference has increased since 2006.

In summary, the data seems not to support the hypothesis that compulsory SAYGO saving in Australia has consistently raised either national saving rates or national investment rates when compared to New Zealand, nor has it improved the current account balance, although the marginal effects of the different schemes could be hidden by other influences on saving and investment. Econometric analysis is required to untangle such compounding effects.

However, as mentioned above, Coleman (op cit) argues that the key aspect of a SAYGO scheme is not the national rate of saving (which with an evenly aged population distribution may be zero, even under SAYGO), but the size of the stock of assets. This is where the Australian SAYGO scheme has likely had an effect; producing a pool of savings that affects the composition of investment.

Investment, in new capital (not the trading of second hand assets such as land and existing houses), increases the productivity of labour and raise incomes. How this has affected different rates of growth in GDP per capita in Australia and New Zealand merits further research.

4. ECONOMIC PROFILE OF THE FINANCIAL SERVICES INDUSTRY

Finance Industry (ANZSIC06 Industry K)

The tables below present an overview of the Finance industry. Where possible it is disaggregated into its component sub-industries.

Table 8 shows that the industry's value-added accounts for about 6.5% of gross domestic product (GDP) for the four years 2006-2009. Later data is not available. The Banking sub-industry is easily the largest part of the industry, but Australian data suggests that this may change with an enlarged KiwiSaver scheme.

Table 8: Contribution to Gross Domestic Product ($m)

year ended March	2006	2007	2008	2009
Banking & finance	6,955	7,445	8,287	8,457
Insurance and superannuation funds	1,606	1,812	1,906	1,907
Auxiliary finance and insurance services	1,449	1,520	1,693	1,821
Total finance industry	10,011	10,777	11,886	12,185
Gross domestic product	160,594	168,374	183,416	184,600
Ratio	6.23%	6.40%	6.48%	6.60%

Source: SNZ National Accounts

More information for a 2006/07 snapshot is given in Table 9. The value-added figures are different than in Table 8 due to a different treatment of indirectly measured financial services. The gross output of the industry, which represents revenue from fees charged for services as well as income earned from the difference between lending rates and borrowing rates, is roughly double value-added. Labour costs account for about 40% of value-added, with the rest constituting a return to capital and indirect taxes.

Table 9: Finance Industry 2006/07

	Compensation of Employees		Value-Added		Gross Output	
	($m)	(%)	($m)	(%)	($m)	(%)
Banking and financing; financial asset investing	2,583	63.2	7,409	74.4	11,082	62.8
Life insurance	93	2.2	318	3.2	1,077	6.1
Health and general insurance	413	10.1	974	9.8	1,928	10.9
Superannuation funds	5	0.0	12	0.0	275	1.6
Auxiliary finance and insurance services	996	24.4	1,239	12.4	3,295	18.7
Total	4,090	100.0	9,952	100.0	17,657	100.0

Source: SNZ Inter-industry study 2006/07

In 2006/07 the superannuation industry was a very small part of the wider Finance industry, but the advent of KiwiSaver is likely to have raised its share substantially, and this may rise still further under an expanded KiwiSaver scheme.

Employment is shown in Table 10. As a share of national employment Finance accounts for about 2.7%, which is well below the industry's share of GDP – less than half in fact, implying relatively high labour productivity.

The New Zealand Financial Services industry employs some 59,000 people on implied average incomes of nearly $70,000 (Tables 9 and 10) and adds more value per employee than the average for other industries.

Table 10: Employment ('000)

year ended March	2009	2010	2011	2012
Finance	31.8	31.4	31.7	32.1
Insurance and superannuation funds	9.5	9,5	10.0	10.0
Auxiliary finance and insurance services	17,1	16.6	16.1	17.1
Total finance industry	58.5	57.5	57.8	59.3
Total all economy	2,171.4	2,111.9	2,130.4	2,185.4
Ratio	2.69%	2.72%	2.72%	2.71%

Source: SNZ and Infometrics calculations

APPENDIX A: KIWISAVER INVESTMENTS

As noted in Section 2, a number of KiwiSaver providers have acted on the lower redemption risk of KiwiSaver savings by supporting longer term investments.

Mercers identified the following areas of investment from KiwiSaver balances:

- Assisting companies to access capital through their equity market recapitalisations, especially during the early part of the GFC.
- Taking up IPO offers when they are sold down.
- Taking up offers when they are recapitalised.
- Fixed interest investment in councils throughout New Zealand.

Mercers' fund managers have invested in Bathurst Resources, a West Coast based mining company, and Pacific Edge (development and commercialisation of diagnostic and prognostic tools for cancer), based in Dunedin. These are both exporters that might not be able to grow as rapidly without external capital.

Westpac identified the following investments:

- Freightways: Express package service ad complementary business services.
- Fletcher Building: Manufacturer of building material and construction.
- Fisher & Paykel Appliances: Appliance manufacturer.
- Nuplex: Manufacture of polymer resins and distribution of raw materials to the chemical, plastics, general industrial, food and pharmaceutical sectors.
- Sky City Entertainment: Entertainment and gaming, casino operator.
- Trade Me: On line auction site.
- Turners Auctions: Vehicle and other auctions.
- Metlifecare: Retirement villages and old age care
- DNZ Property Fund: Management and development of commercial property assets
- Fonterra: Co-operatively owned dairy production and products company.
- Mighty River Power: Electricity generation and retailing
- New Plymouth District Council
- Hutt City Council
- Hamilton City Council
- Dunedin City Council

Tower noted a number or examples of less liquid, longer term equity investments:

- **Scott Technology:** Scott Technology is a smaller and sometimes overlooked engineering firm listed on the NZX. Research and analysis identified Scott Technology as a mid-cap growth stock, one poised in favourable industries to achieve exceptional levels of growth over the medium to long term. We believe that Scott Technology will be able to reap handsome rewards from its extended period of investment into diversifying its automation business across meat and dairy processing, mineral testing, and industrial processes, not to mention its foray into products aimed at the high temperature semiconductor industry. We participated in a rights issue, providing the company with new

capital to invest into a Chinese production facility, and have become a substantial equity owner.

- **Skellerup Holdings:** Skellerup Holdings is a manufacturer of agricultural and industrial rubber products. After a pummelling from the global financial crisis struck the firm's heavily leveraged overseas expansion plans hard, it slashed debt, successfully turned its industrial division around, and identified multiple business opportunities in the United States. While its share price will be susceptible to economic concerns we are able to invest for the long term growth in its high value added technology segments.

- **Tourism Holdings:** Tourism holding is New Zealand's largest camper van operator. It also operates one of New Zealand's most famous tourist destinations, Waitomo Caves. Reduced demand for camper vans as a result of the GFC has resulted in Tourism Holdings struggling recently. We identified Tourism Holdings as a long term value opportunity as, while the industry might shrink, there will be a place for an efficient operator of camper vans. We became a substantial equity holder and have spent time with the Board and management. Our support has allowed them to consolidate the industry, buying Kea and United and allow the combined entity to be a much stronger entity.