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Reforms to New Zealand Superannuation Eligibility: Are They a Good Idea?[*]

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June 2017

Abstract

This paper examines the recently announced (March 2017) reforms to New Zealand Superannuation (NZS), raising the age of eligibility to 67 from 2037 and changing eligibility rules. With an ageing population, pensions that are indexed to wages and funded out of current tax revenues, there is much debate over the merits of existing and alternative NZS policy settings. But is this proposed reform the right call? The paper focuses particularly on the intergenerational consequences of current and reformed NZS settings, addressing two questions: (i) how are the reforms likely to impact on intergenerational equity?; and (ii) even if correct in principle, does the proposed implementation from 2037 represent unreasonable delay?

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Introduction

In March 2017 the National-led government of Prime Minister Bill English announced proposed changes to the eligibility rules for receipt of New Zealand Superannuation (NZS). In 2037 the age from which New Zealand residents become eligible to receive NZS will begin to rise – by six months each year – from the current age of 65 to reach 67 by July 2040. Residency requirements will also rise to twenty years from ten (five of which must be after age 50).[1] This is quite a dramatic turn-around for the new PM, having been part of the previous Cabinet under Prime Minister John Key which, since 2008, steadfastly refused to consider changing the eligibility conditions for NZS.

Without such changes Treasury (2016) projected that the fiscal costs of NZS, as a proportion of GDP, would rise from 4.8% in 2015 to 6.3% in 2030, reaching 7.9% by 2060.[2] They noted that "fiscal pressures are projected to increase significantly over the next 40 years. … population ageing is projected to be a key driver of these increased pressures" (Treasury, 2016, p.58).

This paper is not concerned with the, undoubtedly fascinating, political judgements surrounding why and how this NZS policy change decision was made. Instead it addresses two different policy-relevant questions. Is it a sensible decision to raise the age of eligibility? And is the timing – delaying adjustments till 2037-40 – appropriate? Initial public debate on both these questions has focussed on two aspects. Firstly, is raising the age to 67 consistent with inter-generational equity (IGE)? Secondly, by delaying the changes for another twenty years, has 'the horse already bolted'? That is, does the alleged future fiscal affordability 'problem' with SNZ require more urgent change? The next sections address each of those issues in turn.

2. Inter-Generational Equity

The first problem with assessing impacts on IGE is defining it. Numerous definitions exist in different contexts. For example, those concerned with long-term environmental issues often regard IGE as each generation leaving the planet's natural environment, or stock of natural capital, no worse off than the stock it inherited from the previous generation. Aside from questions of what is meant by a 'generation', this fails to deal with the issue of whether it is consistent with IGE to bequeath an *improved* stock of natural capital to succeeding generations. After all, this would imply that in some sense the current generation has made additional sacrifices of resources compared to previous generations that could have been used for other purposes without harming IGE.

[1] Details of the changes and the case for change are set out in New Zealand Government (2017).

[2] A cut of around 1 per cent of GDP by 2060 is projected if the age of eligibility for NZS is increased to age 67 in the 2020s; see Treasury (2016, p.67).

In the context of state pension provision, IGE is often presented in purely fiscal terms – each generation's net contribution to fiscal balances (taxes paid and pensions received) should be 'equitable'. This is usually taken to mean that currently working taxpayers – funding pensions for the previous generation of workers, now retired – should be able to rely on the same pension benefits when they retire, paid for by the next generation of working taxpayers. This is the basis of the so-called PAYGO superannuation system whereby current pensions are paid for out of current tax revenues, as opposed to a SAYGO system in which each cohort of workers pays for its own future pensions through age-related savings schemes, usually involving some tax-favoured status.[3] The New Zealand system is essentially PAYGO with a small recent SAYGO element through Kiwisaver.

Coleman (2012) produced estimates of net tax paid to fund pensions and the pensions received in New Zealand on average since 1976. These indicate that New Zealanders have typically paid taxes during their working (and retired) lives that amount to less than half the value of the pensions they receive.[4]

This may seem unsustainable but need not be. Consider the case, as in New Zealand, where the state pension is indexed to wages. In any accounting period pension expenditure, E_p, equals the average pension received, p, multiplied by the number of pension recipients, N_p:

$$E_p = pN_p \tag{1}$$

In a PAYGO system the tax revenue required to pay for pensions, T_p, is levied in the same period and can be described by:

$$T_p = \alpha\tau wN_w \tag{2}$$

where τ is the average tax rate applied to taxable incomes, w, N_w is the number of taxpayers, and α is the fraction of tax revenue used to finance pension spending. (For simplicity it is assumed here that only workers pay tax, and only retired (non-)workers receive pensions).

Setting (1) equal to (2), it is readily shown that the tax rate that is required to finance pensions is given by:

$$\tau = (1/\alpha)(pN_p/wN_w) \tag{3}$$

[3] How 'the same pension' is defined is often unclear in IGE debates. It could be defined as constant in real dollar terms, relative to the wages earned by retires when they were working, or relative to the wages of the workers paying the wages of current retirees. For discussion of these issues, and PAYGO versus SAYGO (and the famous Aaron-Samuelson condition on the choice between the two) see Creedy and Van De Ven (2000).

[4] Coleman's (2012) 'pension-financing taxes' are based on assuming that all of the value of pensions paid in a given year are effectively entirely tax-funded; i.e. ignoring the allocation of any public deficit-financed expenditures.

Equation (3) can be thought of as applying to different cohorts or generations, illustrating the essential contributors to IGE. In particular, IGE might reasonably be taken to imply that the tax rate, τ, should be constant across generations. Similarly, the fraction of tax revenue used to finance pensions, α, (and hence unavailable for other public spending) should remain constant. This leaves the term (pN_p/wN_w) on the right-hand side of (3) and raises the tricky question of whether IGE requires that p/w is constant across generations – the average pension is constant relative to the average wage – or requires that the ratio of total pension spending to total wages, pN_p/wN_w, is constant across generations.

If there is no population ageing then N_p/N_w is constant and the question is irrelevant. But with population ageing, N_p/N_w will increase over succeeding generations such that p/w would need to fall to keep pN_p/wN_w constant.[5] Thus, should IGE require that each *individual* in each generation is treated equally or that each generation *as a whole* is treated equally (pN_p/wN_w constant)? If the former view is taken (p/w constant), this inevitably implies less private spending in the later, more aged generation, and/or less tax to spend on other transfers or public services. But this also seems inconsistent with IGE.

These impacts of ageing can be illustrated with a simple overlapping generations model. Consider a simplified case where a new generation is born every 30 years. Each individual (after an initial period of non-working), begins work at age 25, works for 40 years, then retires for 20 years, dying at age 85. All individuals earn wages and pay tax at a constant tax rate while working, then receive a pension but pay no tax when retired. The annual pension is set at a fraction of the current average wage. With a new generation every 30 years, there is an overlap of 10 years when any two generations are both working, though this is immaterial for the key outcomes of interest below.

Table 1 shows results for the following parameter values: initial income (in $) = 1000; tax rate = pension/wage ratio = 0.25; annual wage growth = 0.04, covering four generations, $i = 1 - 4$, over 156 years. The resulting time paths for incomes, y_i (wages followed by pensions), and tax revenues, T_i, are shown in Figure 1 for the first three generations.

[5] Note that if the population ages purely via people living longer, this can be represented as a population increase for the additional years in which the relevant individuals now remain alive; see below.

Table 1 Simulating Pensions with Population Ageing

No Population Ageing

Generation	Pop (N)	years working	years retired	Wages (W)	Tax paid (T)	Pension recd. (P)	P/T	Ave wage (w)	Ave Pension (p)	p/w	P(i)/T(i+1)	W(i+1)/W(i)
1	1	1-40	41-60	95,026	23,756	35,741	1.50	2,376	1,787	0.75	0.46	3.24
2	1	31-70	71-90	308,206	77,051	115,923	1.50	7,705	5,796	0.75	0.46	3.24
3	1	61-100	101-120	999,633	249,908	375,985	1.50	24,991	18,799	0.75	0.46	3.24
4	1	91-130	131-150	3,242,207	810,552	1,219,469	1.50	81,055	60,973	0.75		

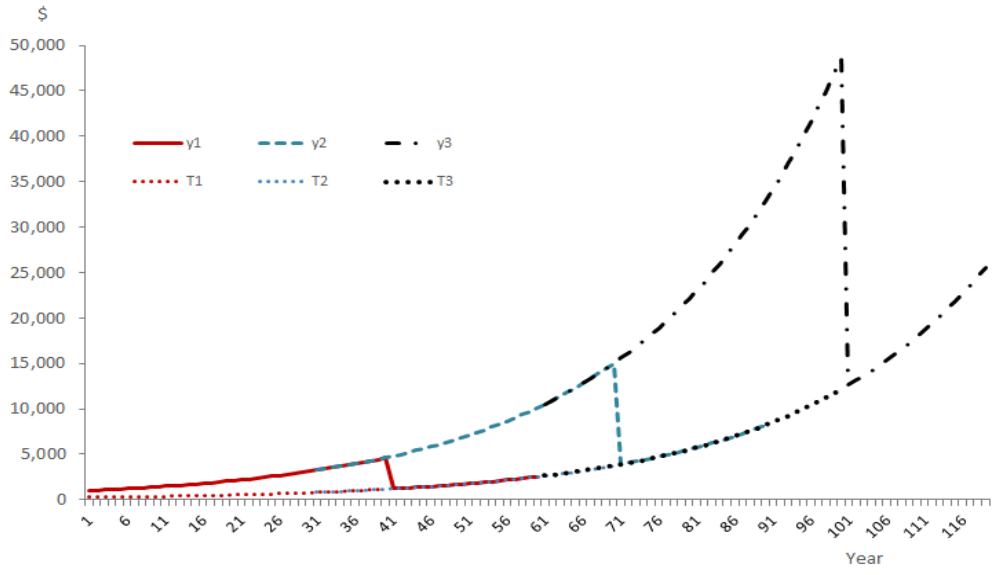
With Population Size Ageing

1	2.5	1-40	41-60	95,026	23,756	35,741	1.50	2,376	1,787	0.75	0.23	6.49
2	2	31-70	71-90	616,411	154,103	231,846	1.50	7,705	5,796	0.75	0.31	4.87
3	1.5	61-100	101-120	2,998,899	749,725	1,127,955	1.50	24,991	18,799	0.75	0.35	4.32
4	1	91-130	131-150	12,968,829	3,242,207	4,877,876	1.50	81,055	60,973	0.75		

With 'Retirement Years' Ageing

1	1	1-40	41-60	95,026	23,756	35,741	1.50	2,376	1,787	0.75	0.46	3.24
2	1	31-70	71-92	308,206	77,051	133,324	1.73	7,705	6,060	0.79	0.53	3.24
3	1	61-100	101-124	999,633	249,908	493,466	1.97	24,991	20,561	0.82	0.61	3.24
4	1	91-130	131-156	3,242,207	810,552	1,814,650	2.24	81,055	69,794	0.86		

Figure 1 Simulated Tax and Incomes (Wages and Pensions) over Three Generations



The top section of Table 1 shows that, for constant sized populations ($N_i = 1$) as total wages (W), Pensions (P) and tax revenues (T) increase across the generations, the ratio of pensions to wages for each generation, P_i/T_i, remains constant at around 1.5. That is, each generation's tax payments are only around two-third of the subsequent cost of their pensions – paid for by the taxes of the next generation.[6] This is also apparent in Figure 1, where the trajectory of pensions over time can be seen to exactly overlay the profile for tax revenues: each generation's pensions are sustainably payable by the next generation.

Similarly, the three right-hand columns in Table 1 show that the average pension as a ratio of the average wages of the *same* generation (p_i/w_i), is constant at around 75%; that pensions of Generation i represent about 46% of the taxes paid by Generation i+1, and that 4% per year wage growth yields total wages over each generation's lifetime that are over 3 times those of the preceding generation. All these values are constant suggesting both a sustainable and an inter-generationally equitable system, despite each generation receiving more in pensions than it pays in taxes.[7]

The middle section of Table 1 introduces population ageing via a relative increase in the size of earlier generations– for example, if fertility rates are falling over time. Each successive generation therefore has more pensioners to support per worker from the next generation. This can be seen to have no effect on the P_i/T_i ratio (it remains at 1.5 – because larger populations pay more taxes as well as requiring more pensions). However, column 12 now indicates that the ratio of a generation's total pensions to the *next* generation's tax revenues (funding them) rises in each successive generation – from 0.23 to 0.35. Thus increasing pensioners to workers over time 'eats up' a larger fraction of the next generation's taxes, leaving less for other spending.

A similar story emerges when ageing is instead represented as individuals living longer in retirement (lower section of Table 1). This assumes that the retirees of each new generation live two years longer than those in the previous generation (the first generation is unchanged at 20 retirement years). This can be seen to change both P_i/T_i and P_i/T_{i+1} from generation to generation. Since pensioners now live longer their pensions are larger fractions both of their own prior tax payments and the tax payments of the next generation.

[6] Here the taxes paid by Generation 1 are not allocated to future pension costs (in principle they would be available for other types of public spending). Rather in year 31 when the first pensions become payable, pensions are set at 25% of current wages in year 31 (= year 1 wages of Generation 2).

[7] These IGE properties remain even if there is zero wage growth but now the total value of pensions are equal to half the value of tax revenues – because a tax rate of 0.25 is applied to wages over 40 years to fund a similar ratio of pensions to wages over 20 years.

Both these ageing scenarios would therefore seem to be inconsistent with IGE –with later generations having to commit a higher fraction of their incomes to support previous generations of pensioners. This naturally leads to the question: can IGE be restored by delaying pension receipt (the current policy proposal of the National-led government)?

Table 2 repeats values of P_i/T_i and P_i/T_{i+1} for the two previous scenarios – 'no ageing' and 'longer retirement'. These are compared with a 'reform' scenario in which Generations 2-4 experience a delay in pensions receipt by 1, 2 and 3 years respectively (to age 66, 67 and 68; they continue to live 2, 4 and 6 years longer respectively).

This particular reform scenario can be seen to move substantially towards restoring the 'no ageing' values of $P_i/T_i = 1.5$ and $P_i/T_{i+1} = 0.46$, especially the latter, suggesting that suitable 'tweaking' of retirement ages in response to increased longevity can suitably deal with those fiscal dimensions of IGE.

Finally, the above analysis assumes that policy continues to link future pensions to future wages. If this policy was to be altered, for example by instead indexing pensions to price inflation, then as equation (3) makes clear, there is greater potential for increased intergenerational inequity as p/w falls over time.

Table 2 Impacts of Delayed Retirement

	---------- P_i/T_{i+1} ----------			---------- P_i/T_i ----------		
Ageing:	None	Longer retirement	Reform	None	Longer retirement	Reform
Generation						
1	0.46	0.46	**0.46**	1.50	1.50	**1.50**
2	0.46	0.53	**0.47**	1.50	1.73	**1.60**
3	0.46	0.61	**0.50**	1.50	1.97	**1.70**
4	-	-	-	1.50	2.24	**1.80**

3. Non-Fiscal IGE Dimensions

Some recent arguments regarding the inter-generational inequity of either current Superannuation arrangements, or the recently proposed reforms, relate to other IGE dimensions. These include concern that Baby Boomers in particular (those born approximately between the mid-1940s and mid-1960s) have benefited from a particular generational advantage: a historically large cohort – due to the post-war 'baby boom' – which can afford to retire at or before age 65, and with expectations of a longer retirement period than previous generations. The allegation is typically that this advantage is at the expense of a larger burden on the current/next generation of wage earners in the form of larger Baby Boomer pension payments.

But this allegation ignores two other important IGE dimensions. Firstly there are non-fiscal generational transfers *from* Baby Boomers *to* later generations. Secondly, most of the fiscal-related IGE phenomenon has little to do specifically with the Baby Boomer generation. Each of these argument is examined in turn below.

Transfers from Baby Boomers

The phrase "standing on the shoulder of giants", used by Isaac Newton in 1676 to refer to his scientific advances, also captures the externalities that each succeeding generation benefit from due to the advances (scientific, economic, social etc.) made by previous generations. Few would deny, for example, that the considerable sacrifices of the suffragette movement in the 19th century brought many and substantial benefits to later generations of women – and society more broadly – that far exceeded the benefits they enjoyed from their own efforts.

Likewise, the post-World War II decades witnessed increases in per capita incomes in New Zealand such that average real income in 2013 was around 2.5 times average real income in 1950, (from $18,700 to $46,200 in 2009/10 prices).[8] Reliably identifying the sources of this income growth is a complex exercise, but it undoubtedly arose in part in response to the entrepreneurial activity, innovation and investment by the post-1950 generation. Much of this would involve sacrifices of current consumption to generate higher future incomes which both reward the investing generation and provide a higher platform of living standards (the giant's "shoulders") that later generations can enjoy and from which they can launch further income growth.

The Baby Boomer generation has therefore in some sense 'bequeathed' an externality of higher living standards on future generations, and from which their state retirement incomes are funded. This is in addition to the generally earlier 'starting age' for employment, and the lower investment in higher education experienced by Baby Boomer cohorts – two aspects discussed further below.

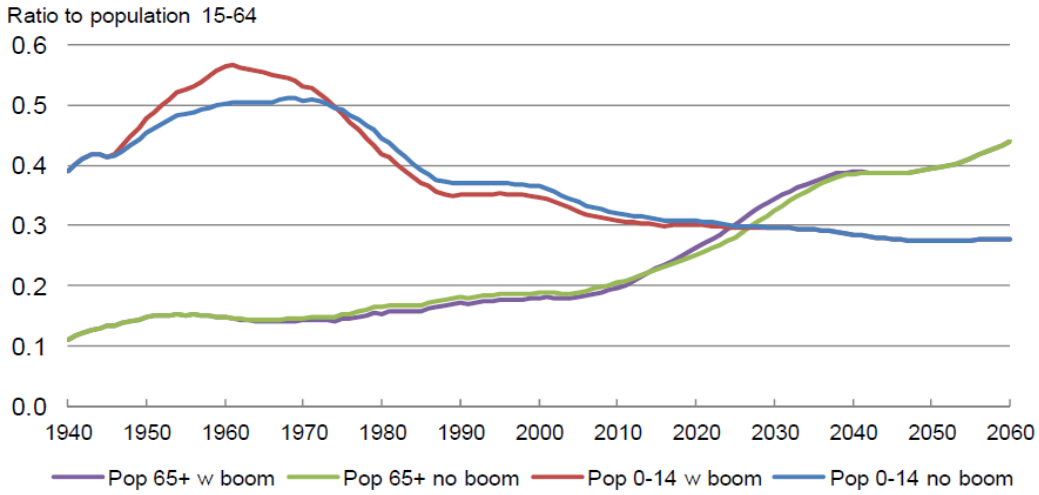
A Baby Boomer-Specific Problem?

Despite much popular rhetoric, the inter-generational 'fiscal transfer' due to population ageing is associated only to a limited extent with the Baby Boomer phenomenon. This is most easily illustrated by Figure 2 from Treasury (2013a). This shows two forms of age dependency ratio: the population aged 65+, and the population under 15 years, both as ratios of the population aged 15-64 years. The Figure covers the period from 1940, with future years based on Statistics New Zealand's median demographic projections to 2060.

[8] Date from the *https:data1850.nz* website.

Two profiles are shown for each dependency ratio, based on (i) actual data ('w boom'); and (ii) a hypothetical 'what if' scenario assuming no baby boom in post-war birth rates ('no boom'). It is clear from Figure 2 that, though there was a substantial boost to the under-15 age group in the mid-40s to mid-60s period, the impact of this forty to fifty years later on the 65+ dependency ratio is relatively small.

Figure 2 Baby-Boom Effects on Dependency Ratios



Source: Treasury (2013a, p.18)

The increasing upward trend in the 65+ ratio from around 2010 is not substantially due to the earlier baby boom. Rather it is due to the various medical and other advances especially in the post-war period that raised the survival rates of children and the longevity of the elderly. Combined with a steady decline in fertility rates over this period, the outcome is a sharp rise in the 65+ age ratio that is first evident from the 1970s and is expected to continue for at least several decades into the future.

Debate over retirement income policy reform could therefore usefully focus more on how to deal fairly with a general and persistent ageing phenomenon (which, of course, brings many benefits to future generations), and less on whether Baby Boomers have gained some form of unfair generational advantage.

Educational (Dis)advantages?

A commonly heard IGE argument regarding an especially favoured Baby Boomer generation relates to their state-funded education, particularly at the tertiary level. Whereas the costs of tertiary education in the first post-World War II decades were generally heavily subsidised by the state, this is much less true for recent cohorts of tertiary students who have to privately fund a larger fraction of their tertiary education. With expectations of delayed retirement (via an increased age of eligibility for NZS) it can

seem that current and future generations of young people are being fiscally squeezed at both ends of the life cycle, compared especially to Baby Boomers.

There is certainly some merit to this argument. The rapid growth in public spending especially in the 1970s and 1980s was associated with rising public debt and was unsustainable. It therefore helped to provide subsidised education for those cohorts of 18-25 year olds who entered tertiary education, but was progressively withdrawn from later cohorts when governments around the globe began to recognise the need for greater fiscal restraint in the 1980s.

However, before concluding that this post-1980s restraint represents some form of inter-generational inequity, it is worth noting two pertinent aspects. Firstly, the fraction of the 18-25 year old cohort entering tertiary education has been steadily rising over the Twentieth century. As a result the *total subsidy* for earlier generation of students may well be much less than that for recent and current student cohorts.[9]

Comparable time-series data across all tertiary education are not readily available, but Table 3 shows the numbers of university students as fractions of 15-19 and 15-24 year olds in the population, based on census data for 1911-2013.[10]

Table 3 University Enrolments 1911-2013

	University Enrolments	Population of 20-24 yr. olds	Participation rate as percent 20-24 yr. olds	Population of 15-24 yr. olds	Participation rate as percent 15-24 yr. olds
1911	1,776	95,816	1.9	184,274	1.0
1921	4,123	97,207	4.2	204,557	2.0
1926	4,653	112,812	4.1	237,126	2.0
1936	4,967	133,540	3.7	265,785	1.9
1945	7,730	112,960	6.8	240,868	3.2
1951	11,491	140,673	8.2	271,187	4.2
1961	20,832	158,063	13.2	344,282	6.1
1971	46,566	234,959	19.8	495,748	9.4
1981	58,652	273,324	21.5	581,244	10.1
1991	96,046	279,480	34.4	568,245	16.9
2001	125,668	249,336	50.4	519,795	24.2
2006	136,363	284,928	47.9	591,912	23.0
2013	173,120	304,482	56.9	608,253	28.5

[9] Additionally, those entering tertiary education will generally pay higher taxes out of the positive earnings premium (on average) earned subsequently by the more educated within each cohort. This further complicates any calculation of 'net subsidy' to tertiary students and represents a form of 'deferred fee' (Creedy, 1994).

[10] Census data report 15-19 and 20-24 population age groups which include, but extend beyond, the relevant age range for most university students.

The table confirms the huge increase in enrolments over the last 100 years both absolutely and as a fraction of the 15-19 or 15-24 age cohorts. For example, since 1951 the ratio of university enrolled students to all 15-24 year olds rose from 4.2% to 28.5% by 2013, and has trebled since 1971 when most Baby Boomers were in the relevant age group.

This record of substantial increases in participation in, largely state-funded, tertiary education illustrates the IGE issue discussed above; namely whether 'equity' should be thought of in terms of individuals within generations or each generation as a whole. Clearly, even if real *per capita* state subsidies to tertiary education are more limited for recent student cohorts than for cohorts some decades ago, the *total* real tertiary subsidy seems likely to be greater for more recent cohorts.

A further consequence of increased tertiary enrolment in recent decades is that the average age at which young people enter full-time employment is likely to be delayed. This is typically 18 years for a school leaver and 21 for a tertiary leaver. As a result working lives begin later, reducing the numbers of years of work if retirement age remains at 65. Together with the prospect of greater longevity after age 65, this suggests a further case for raising the age of NZS eligibility, to rebalance the work/retirement allocation more equitably.

Finally, it was argued earlier that, like generations before them, the Baby Boomer generation 'bequeaths' a positive externality on future generations in the form of higher living standards. However, it could be argued that concerns about inter-generational equity should not simply focus on whether a given generation is treated fairly relative to *future* generations, but also with respect to *past* generations. This raises the tricky issue that, at any point in time, the 'fairness' of economic allocations with respect to previous generations, now dead, cannot be altered.

By its nature economic growth necessarily treats early (relative to late) generations 'unfairly' by virtue of the lower living standards the former experience. And since this 'inequity' cannot be corrected *ex post*, it begs the question whether, provided income growth is expected to continue, policy should aim to favour each current generation to some degree by utilising resources that would otherwise accrue to future generations. Of course, difficulties identifying "how much" favouring is appropriate and how the inevitable *uncertainties* surrounding future generations' economic conditions should be treated, render these IGE judgements extremely difficult in practice.

4. Has the Horse Already Bolted?

Even if, in principle, raising the age of eligibility for NZS represents as move towards greater inter-generational equity, is the proposal to delay it to 2037-40 the correct choice?

As is well-known, Prime Minister Key refused to consider increasing the NZS age when seeking election almost ten years ago, despite a Treasury (2006) report that suggested that there was a strong case for considering it. Michael Cullen, Labour Finance Minister at the time, was also rumoured to have dismissed the 2006 report as 'alarmist tendentious nonsense'!

But Figure 2 above shows the rapid increase in the over 65s proportion begins around 2010 and is expected to last till around 2040. Changes to any pension arrangement require a reasonable lead-time to give those approaching retirement time to adapt to a previously unexpected reduction in their future income. This suggests that the time to act – or at least to consider it seriously – was well before 2010 so that suitable funding arrangements could be put in place and the trade-offs involved addressed.

This was indeed the driving force behind the 'Cullen Fund' set up in 2001, to pre-fund the expected increase in NZS due to ageing, though substantive payments *out of* the Fund are not expected till the 2040s at the earliest. So, there is an argument that if the age of eligibility for NZS was to be raised to make it more fiscally affordable and to improve IGE, it should have been raised some time ago. Or at least, notification some time ago of an increase around 2020 would have made sense. This would have enabled the eligibility changes to match better with the otherwise expected boost in eligible adults stemming from the aging process.

The decision to raise the age of NZS eligibility therefore makes some sense though, since it involves trade-offs over spending priorities, preferences over those choices will legitimately depend on value judgements that vary across individuals. But, having delayed the decision to 2017, a lead-time of twenty years before the NZS changes come into effect is arguably a reasonable compromise between tackling the imminent fiscal 'problem' while giving those currently aged in their 40s and 50s enough time to prepare for delayed retirement income provision.

For comparison, some time ago the UK raised the state pension age for women from 60 to 65 – to be equalised with the male state pension age. This was announced in 1995 to begin taking effect in 2010. Similarly an announcement of an increase in the state pension age to 66, 67 and 68 for both genders was announced in 2007 to begin taking effect in 2024, 2034 and 2044 respectively. Hence UK changes were announced around 15-20 years in advance. On the other hand, in 2012 the Canadian government announced a progressive increase in the state pension age from 65 to 67, starting in 2023, giving only around 11 years notice for some recipients. Even shorter notice was given by the Belgian government in 2015 of increases in the pension age from 65 to 66 in 2025 and to 67 in 2030; see OECD (2015) and Eurofound (2015) for more details across OECD countries.

Overall therefore, among OECD countries, the New Zealand government would seem to have selected one of the longer lead-times between announcement and implementation for its NZS age increase. Given the delay in making this decision, relative to the timeframe for the emerging sharp increase in longevity in the New Zealand population shown in Figure 2, arguably a shorter period before implementation could have been justified.

In summary, the 'NZS ageing' horse hasn't bolted. Persistent population ageing is likely to dictate continued scrutiny (and probably upward adjustment) of the appropriate age of NZS receipt. But, by delaying a decision to 2017 with implementation from 2037, recent New Zealand governments have bequeathed an imminent, rapidly growing fiscal commitment for NZS payments to future governments. This will undoubtedly lead to more difficult trade-offs over the next ten to twenty years over how far taxes should rise to pay for this increased fiscal burden, and how far to compromise on other public spending objectives. Both retired and working individuals over this period will face the consequences of those choices.

Finally, a voluntary increase in labour force participation of the over 65s has been observed in many countries, including New Zealand, over recent decades, independently of any changes to retirement income policy. This suggests an increased preference for later, or 'staged', retirement. It makes the delay in receipt of state pensions more acceptable, for example because a large income reduction at age 65 is avoided when the pension age is raised. Of course there will always be individuals within any over 65 cohort whose life expectancy and/or ability to work longer are more limited. But in general it makes more sense to deal equitably with this by using more targeted social transfers (such as ill-health-related benefits) than to pay higher pension transfers to *all* 65 to 67 year olds.

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