



New Zealand Society of Actuaries (Inc)

Income Streaming in Retirement: Options for New Zealand

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This paper represents the collective personal views of the members of the Retirement Income Interest Group, and does not necessarily represent the positions of their employers. The paper has been prepared on behalf of the New Zealand Society of Actuaries.



Introduction

This paper is about ways in which New Zealanders could convert their savings into income during retirement. By "retirement" we mean the phase of life when most people do significantly less or no paid work and generally need income from their savings or other sources.

This paper provides an overview of and actuarially informed comment on the issue of income streaming in retirement. Its purpose is to help set the scene for policy work such as the Retirement Commissioner's review of options for voluntary annuitisation of retirement savings. Our aims for this paper are to:

- Refine a shared understanding of what is often referred to as "the decumulation problem" which New Zealand faces.
- Briefly evaluate options by which New Zealanders could secure income in retirement, and the risks inherent in those options.
- Identify useful contributions actuaries could make to help individuals and policy makers facing questions about income in retirement.

Chapter 1 is a summary with initial conclusions. In Chapter 2 we set out the current context for retirement income in New Zealand. In Chapter 3, we give an overview of current and potential solutions to turn assets to income.

We bring our findings together in Chapter 4 by providing our initial answers to five key questions. Our commentary reflects feedback from presenting a draft of this paper at two conferences¹, and other discussions.

¹ New Zealand Society of Actuaries Conference *Brave New World*, November 2014, Dunedin and Retirement Policy and Research Centre Forum *Decumulating retirement savings: making the options work*, November 2014, Auckland.



Chapter 1: Summary and conclusions

1.1 Retirement is a large and growing part of New Zealanders' experience.

There will be more than 1 million New Zealanders reaching age 65 over the next twenty years. Already most New Zealanders reaching their 65th birthday can expect to live for at least a further twenty years. People in their twenties can expect to live nearer to thirty years after age 65.

1.2 Because of different work, financial and health experiences, diversity is an inherent theme of retirement.

Financial requirements in retirement critically depend on home ownership, health and activity. New Zealand Superannuation is the dominant source of income. Earnings from work are growing in importance for older New Zealanders. This type of income is sometimes derived from different work than that of earlier life.

1.3 Uncertainty and change are also themes of retirement.

People may retire at a different time and in different financial circumstances than they expected. Uncertainty and change continue throughout retirement: people are likely to live longer than they expect, investment and inflation risks continue and additional costs may arise, especially because of health or long-term care needs.

1.4 KiwiSaver, introduced in 2007, is changing the retirement landscape.

The existence of KiwiSaver will increase demand for ways of converting assets into retirement income. More and more New Zealanders will reach age 65 with a KiwiSaver balance, and the size of the funds available will grow. We estimate about half of the KiwiSaver members reaching age 65 in twenty-five years' time will have a KiwiSaver balance of \$100,000 or more in real terms.



1.5 Some suitable ways of using assets - whether from KiwiSaver, other savings, a home equity loan or selling property - to provide income already exist in New Zealand. For example, funds can be drawn down from within KiwiSaver or invested in income-generating assets such as term deposits. The most obvious gap is that annuity products which guarantee income for life are currently unavailable. However, most people will have guaranteed lifetime income from New Zealand Superannuation.

1.6 The critical question is less about "What products need to be made available?" but more "How can an individual put together an appropriate mix of solutions?" Practical and relevant financial guidance will become ever more critical.

1.7 Using the above to frame the debate, we consider five key questions.
For each, we summarise our conclusions below. More detail is in Chapter 4.

A. How might needs for products change during retirement as the potential impacts of the key risks - longevity, mortality, credit, inflation and investment - change?

1.8 Diversity in individual circumstances means that people will rank the importance of the key risks differently, and their preferences may change during retirement. As a result, we believe that there is unlikely to be an appropriate one-off "standard" or "default" strategy that will be suitable for everyone at all times.

B. In what circumstances are annuities preferable to drawdown or simply investing for income?

1.9 It is not possible to give a universal rule for when an annuity would be a better choice, or better value for money, than drawing down income from invested assets. It depends on individual circumstances and perception of risk, as well as market conditions. An annuity of some type can



be a good product at some point in retirement for those wanting certainty of income, but low demand for annuities reflects that for some people better solutions exist. We believe that a guaranteed lifetime annuity is not the best product for everyone, or for all the funds an individual holds.

C. Would it be possible for the New Zealand market to provide annuities? If so, what changes are needed?

1.10 We believe it will be difficult to develop a viable commercial market for lifetime guaranteed annuities at reasonable cost in New Zealand.

1.10.1 Even if the Government offered bonds suited to match annuity terms, New Zealand will always be a relatively small market so that offering full guarantees against longevity risk will be difficult for commercial insurers.

1.10.2 Even if the Government made the basis of taxation on annuities similar to that on investment products, annuities would remain relatively poor value for money because the small size of the market implies relatively high risk, marketing and administration costs.

1.11 The gradual rate of increase in the number and size of maturing KiwiSaver balances provides time for the market to innovate. We estimate that the median maturing KiwiSaver balance will be below \$50,000 in today's dollars for those aged 50-54 now, with at least ten years to go before funds can be accessed. The median reaches \$100,000 in real terms in around twenty-five years' time.

1.12 We expect market innovation will develop to meet the growing market for income-streaming products: drawdown, home equity and annuity-type products. Innovation may focus on wealthier customers and on niche products which leave some risk with the customer. We note that regulators have been responsive to new business cases, and we hope this continues.



D. Should the proposal of a full state-provided voluntary annuity solution be developed further? If so, what are the critical issues?

1.13 Government provision may be the only practical way in which all KiwiSavers could have the option to turn their savings into guaranteed lifetime income. However, we do not see it as a straightforward or quick solution. We would not like to see market innovation stifled by a futile wait for Government provision, so it would be helpful if the Government, taking relevant advice, signalled its interest in state intervention in annuity provision as soon as possible.

E. Given the diversity of needs, the uncertainties inherent in the retirement phase and the increasing size of the retiring population, what can be done to give New Zealanders more guidance on options for managing savings in retirement?

1.14 We believe that a guidance focus to the problem is more appropriate than a product focus. We suggest two approaches are worth developing in order to help guide people to ways to use their resources in retirement to meet their individual needs:

- Simple, approved "rules of thumb" freely available, for example on the Sorted website and used on product literature.
- Access to a simple form of approved independent financial guidance at suitable moments during retirement, with consideration to be given to whether this should be a default setting (that is, auto-enrolled but can opt-out) for KiwiSavers with significant balances.

1.15 Developing rules of thumb, other tools and guidance in New Zealand would need input from a range of experts, including actuaries. We are concerned, in particular, to ensure that individuals are informed about longevity, mortality, credit, inflation and investment risks and uncertainties around costs including medical and long-term care needs.



Chapter 2: Current context for managing retirement income

2.1 This chapter covers the current situation in New Zealand insofar as it is relevant for understanding how assets can be managed in retirement to provide income. It shows why there is increasing interest in the subject and sets the scene for considering whether new solutions are required.

2.2 This chapter describes:

- How “retirement” is a large and growing part of New Zealanders' experience.
- How New Zealanders experience retirement in diverse ways and so require a variety of solutions.
- The uncertainties that are inherently part of retirement.
- How the growing number of New Zealanders with maturing KiwiSaver balances is changing the retirement landscape.

Retirement is a large and growing part of New Zealanders' experience

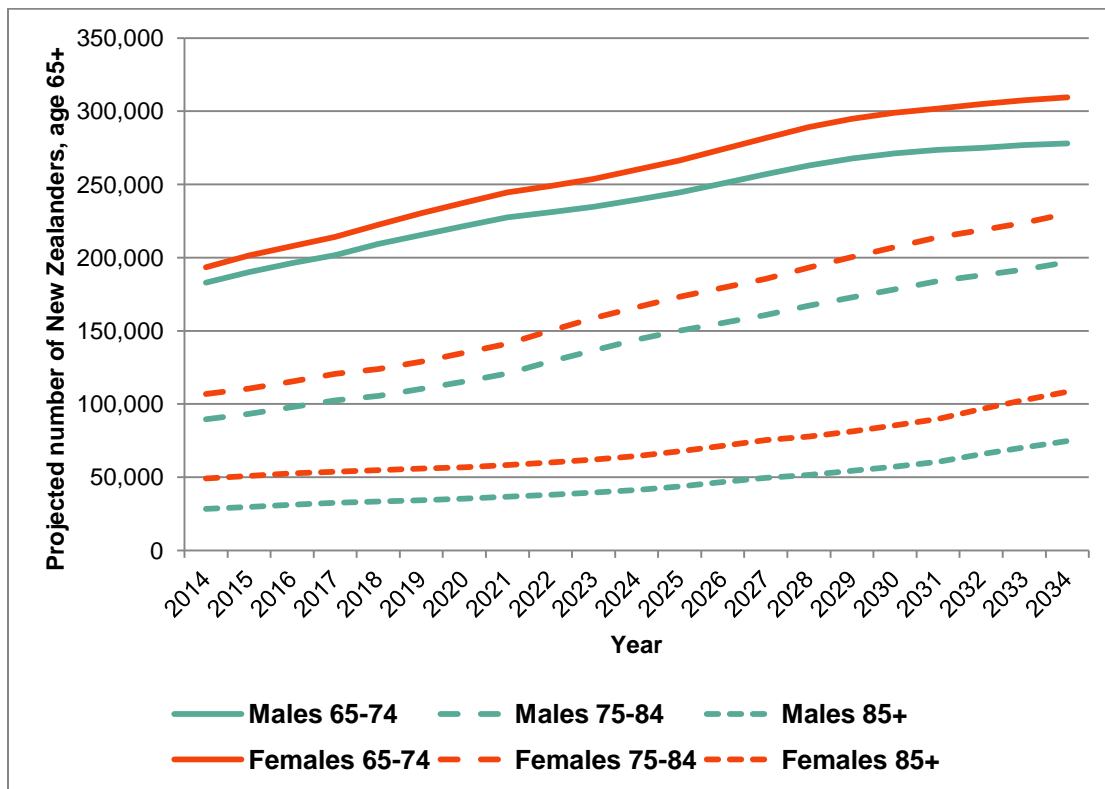
2.3 New Zealand has an ageing population². There are estimated to be 650,400 New Zealanders aged 65 or more in 2014³. This number is projected to grow rapidly. Under its median (base case) projections, Statistics New Zealand estimates there will be 547,100 more by 2034 (Figure 1). This would mean the proportion of New Zealanders aged 65 and over increases from 14.4 per cent of the population in 2014 to 22.3 per cent in 2034.

² For example, Royal Society of New Zealand (2014).

³ Data in this and following paragraphs from Statistics New Zealand National population projections 2014 (base)-2068, median projection. Data extracted from NZStat 29 January 2015. Note that we use age 65 in this paper as shorthand for the start of the retirement phase. Most available statistics use age 65 as a marker.

2.4 Other scenarios paint a similar picture. Even on the scenario at the 5th percentile of total population growth, the number of New Zealanders over age 65 is expected to increase by 520,000 between 2014 and 2034.

Figure 1⁴: Projected number of New Zealanders age 65+



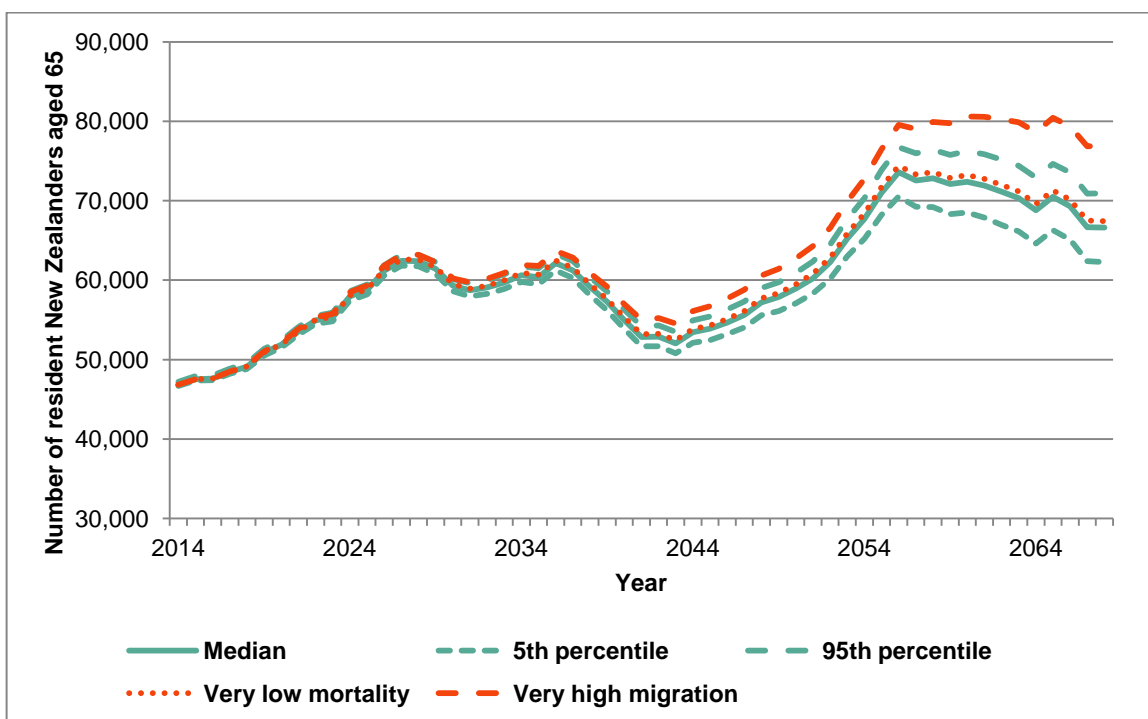
2.5 One of the causes of population ageing is increasing lifespans: each generation is expected to live longer than the one before, on average. Thankfully, the vast majority of adult New Zealanders reach age 65. Over 90 per cent of those born in the late 1950s will⁵, and this survival rate is expected to keep increasing for people born later.

⁴ Statistics New Zealand National population projections 2014 (base)-2068, median projection. Data extracted from NZStat 29 January 2015.

⁵ Calculated from Statistics New Zealand cohort life tables (updated September 2014) and 2014 (base) national population projection mortality assumptions, based on medium death rates. See also O'Connell (2013).

2.6 The number of New Zealanders reaching their 65th birthday is set to grow from around 47,000 a year currently to a peak of around 62,000 in 2027 (Figure 2). This near-term forecast varies little on different scenarios of mortality and migration. The number then falls back to around 52,000 in the mid 2040s before rising again. More than 1 million New Zealanders will turn age 65 over the next 20 years.

Figure 2⁶: Estimated number of resident New Zealanders aged 65, by projection scenario, 2014-2068



⁶ Statistics New Zealand National population projections 2014 (base)-2068. Data extracted from NZStat 29 January 2015. See Statistics New Zealand (nd) for scenario description. The chart shows estimated resident population aged 65 as at 30 June of each year, which is an approximation of how many have their 65th birthday in the year.

2.7 The average length of remaining life for New Zealanders currently reaching age 65 is around 21 years for men, and 24 years for women. This is also expected to keep increasing. Those reaching age 65 in twenty years' time can expect a remaining lifespan on average 2½ years longer than those reaching age 65 today. For people currently in their twenties, the average lifespan after age 65 is expected to be over 25 years for men and nearly 28 years for women⁷. We look later at the variability in the length of life after age 65, as this is one of the key challenges in retirement planning.

New Zealanders experience retirement in diverse ways

2.8 The diversity of New Zealanders' experience throughout retirement has been summarised by considering three distinct phases: active, restricted and frail (Table 1).

2.9 Not all retirees will spend time in every phase and the duration spent within phases will differ. For many people, the boundaries between phases will blur. Some people can change lifestyle and spending patterns quickly while others take longer to adjust. Nevertheless, it is a useful way of thinking about the different needs retirees are likely to have at different times throughout retirement.

2.10 The framework suggests that spending is U-shaped, that is, high when newly retired, low when activity reduces and then higher again if health worsens. This stylised U-shape probably holds in New Zealand: income is higher at the start of retirement⁸ and there is lower expenditure on daily living at the end of the U⁹. However, long-term care costs may emerge near the end of life, see section 2.31.

⁷ See O'Connell (2013) p. 9, updated by December 2014 revision of Statistics New Zealand *How long will I live?* calculator http://www.stats.govt.nz/browse_for_stats/health/life_expectancy/how-long-will-i-live.aspx

⁸ Waldegrave (2014).

⁹ Davey (2009).

Table 1¹⁰: Stylised phases of retirement

Phase	Active	Restricted	Frail
	Newly or partly retired	Desire for independence	Reduced independence
Finances	Relatively high spending potential	Spending on non-essentials may decrease	Spending on healthcare may increase
	Desire to undertake new activities e.g. travel	Participation in travel and other activity reduced	May move into serviced retirement community
	Paid employment may be possible	Practicality of employment limited	Paid employment not practicable
	Capital at maximum	Increased financial concerns	Capital may be depleted
Health	Good health	Health problems associated with ageing increase	Need for healthcare and nursing care may increase

2.11 Nearly all (97 per cent) of New Zealanders aged 65 and over receive New Zealand Superannuation (NZS)¹¹. NZS pays \$374.53 per week to an eligible single person living alone and \$288.10 to each person in a couple where both qualify (as at 1 April 2015, taxed as if no other income). Net NZS must keep parity with both prices and earnings: it is increased each year by the Consumers Price Index (CPI), and the couple's rate must be at least 65 per cent of the average wage after tax¹².

¹⁰ Adapted from Mercer (2009) p. 8.

¹¹ NZS and Veteran's Pension, as at March 2012. MSD (2013).

¹² Current policy is for net couple's rate to be 66 per cent of the net average wage.

2.12 Because of NZS, most New Zealanders would not find it necessary to work full-time to maintain the same level of income once they reach age 65. However, many people choose or need to continue to work. In global terms, a very high proportion of older New Zealanders are in paid employment. In 2011, New Zealand had the 4th highest employment rate of the 34 OECD countries in the age group 65-69 and the second highest in age groups 50-64 and 55-64 years¹³.

2.13 Figure 3 shows the increase in rates of “employment”, meaning one or more hour per week of paid employment, since the end of the 1990s. The employment rate for men at ages 55-59 has remained relatively stable, but in the age groups 60-64 and 65+ years, male employment has increased overall by 76 and 71 per cent respectively. Female employment rates remain lower than those of men, but the rate of increase has been higher¹⁴.

2.14 The nature of employment at older ages is itself diverse, with full-time work not the norm. The proportion of people with part-time, temporary or seasonal jobs increases with age. Older workers are also more likely to be self-employed than younger workers¹⁵.

2.15 Diversity is also apparent in the financial situation of New Zealanders in retirement, but is less variable than in working life. Figure 4 shows the income distribution for older New Zealanders (age 65+) and demonstrates that it is flatter than that of younger people. Working incomes vary more than incomes in the older population, within which there is a heavy reliance on NZS - the spike in Figure 4.

¹³ Jackson et al. (2013).

¹⁴ Jackson et al. (2013) p. 10.

¹⁵ Jackson et al. (2013) p. 13.

Figure 3¹⁶: Percentage of age group employed

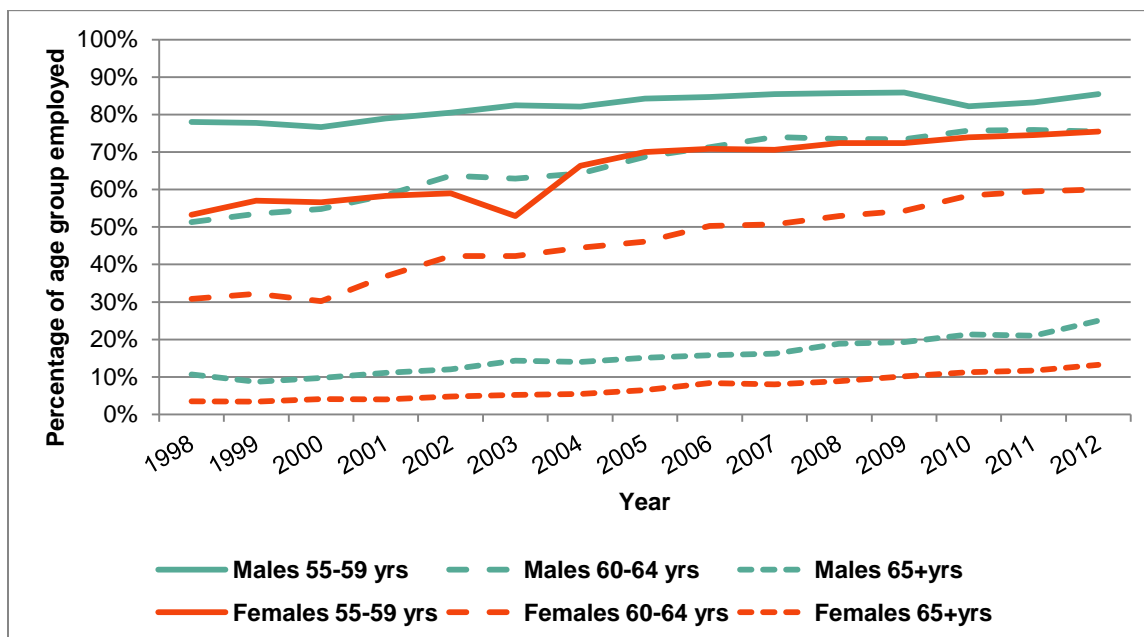
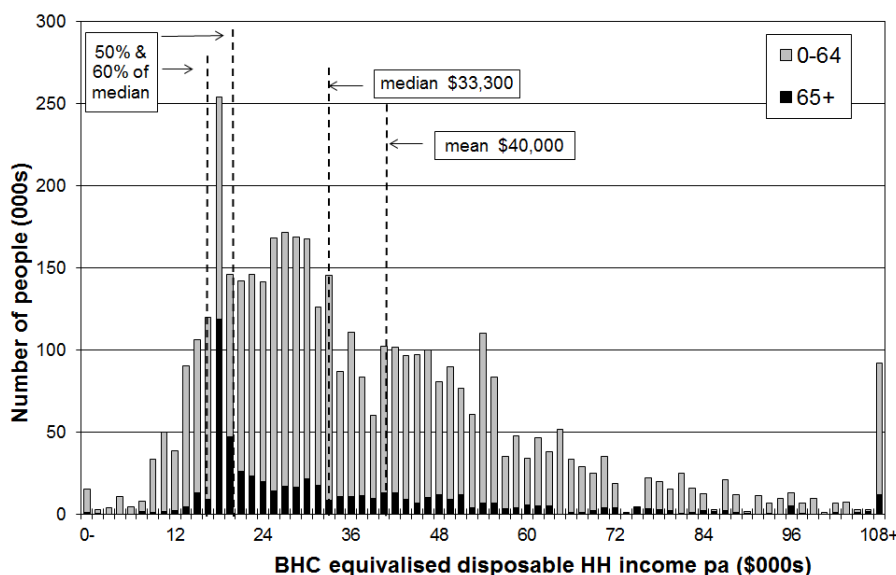


Figure 4: Before Housing Costs (BHC) household (HH) income distribution for older New Zealanders, aged 65+ relative to the rest of population¹⁷



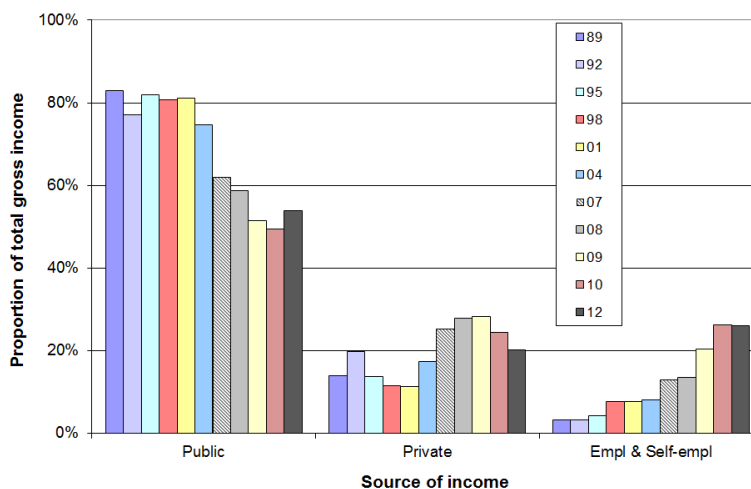
¹⁶ Jackson et al. (2013) p. 10 and Appendix B.

¹⁷ Perry (2014) p. 165. Data from Household Expenditure Survey.

2.16 Investigating further the sources of income of older New Zealanders (aged 66+) shows that of this group 40 per cent have almost no other income source except for NZS or other government transfers. The next 20 per cent (ranked by total income) receive on average around 80 per cent of their income from NZS and other government transfers. This picture has not changed greatly in the last two decades¹⁸.

2.17 Looking at 'younger-older' cohorts shows the financial landscape is changing, but slowly and not equally. Couples aged 66-75 in the middle quintile (deciles 5 and 6) of that group's income distribution received 50 per cent of their income from NZS in 2010, down from 80 per cent in 2001. However, over this period, income from employment has been growing faster than that coming from other private sources (investment returns) (Figure 5).

Figure 5: Changing proportions from three sources of income for couples aged 66-75 in deciles 5-6 for couples, 1989-2012¹⁹



¹⁸ Perry (2014) p. 171.

¹⁹ Perry (2014) p. 173.



2.18 This picture also shows diversity in financial assets. The middle deciles of new retirees are receiving less income from private savings than from employment.

2.19 People in the current cohort of older New Zealanders are very likely to own their own home. Over 70 per cent of people between the ages of 55 to 84 either own or partly own their usual place of residence²⁰. While people may be starting, and repaying, mortgages later in life than used to be the case, still around 90 per cent of over-65s who own their home are mortgage-free²¹. Home equity appears promising as a source of funds by either downsizing or taking a home equity loan, but will not be feasible in all cases.

2.20 This evidence highlights that, on current policy settings and at least for the immediate future, new income-streaming solutions will not be needed by all of the people turning age 65. Some - perhaps as many as 40 per cent - will still be served by NZS. Some people will be able to add to NZS while they continue to work.

²⁰ Statistics New Zealand Census 2013 Table 21.

²¹ SOFIE data 2007/8 from Law and Meehan (2013).

Uncertainty and change during retirement

- 2.21 Uncertainty and change are also major themes of retirement. This is not just about risks related to financial arrangements. Significant uncertainties include timing and duration of retirement, health and long-term care needs.
- 2.22 Part- or full-retirement decisions are known to be based on many complex factors, with financial situation not usually the main or only one²². Other factors affecting the timing of retirement include health (one's own or a family member's), expectations based on social norms and individual feelings, and the availability of flexible work arrangements²³. Some of these are outside an individual's control, so even the best planned retirement can start differently to how it had been intended.
- 2.23 Most people do not plan for retirement, or leave planning until there is limited time to change course. Of adult New Zealanders, 25 per cent are estimated to have a plan in place to achieve a long-term financial goal, 34 per cent a mid-term plan and 49 per cent a short-term plan²⁴. Even if starting retirement with certainty on wealth and income available and on immediate spending, uncertainty is not far away. Unexpected costs may arise; needs may change; and inflation, investment and longevity risks are ever-present.
- 2.24 ***Inflation is a risk for all retirees, although NZS mitigates this to some extent.*** Cost inflation for retirees may be lower or higher than general price inflation depending on their phase of retirement and specific needs. Regular income may not be able to track income needs exactly, even if it is indexed to CPI and wages as NZS is.

²² However, Hurnard (2005) suggested that the increase in the age of eligibility for NZS from age 60 to 65 between 1992 and 2001 did have a significant impact on increasing the age at which New Zealanders retired.

²³ Gorman et al. (2012); Davey (2008).

²⁴ Colmar Brunton (2013) p. 113.

2.25 Retirees relying on assets to provide income during retirement are exposed to investment risks. Investment values may be volatile. For investors who regularly draw on invested capital, there is also sequencing or drawdown timing risk: capital can be depleted more quickly if unfavourable returns happen to be experienced earlier in the drawdown period. These investment risks can be mitigated, for example, by appropriate investment selection and improving diversification, but the ability to do so may be restricted by insufficient funds, the available investment options and lack of understanding of the risks.

2.26 As in all developed countries, longevity risk is a major issue in New Zealand. Longevity risk is the possibility that people live for longer than they expected when they did their financial planning for retirement²⁵. Individuals generally have not thought about longevity risk and do not understand its implications. If retirement lasts longer than expected then there is a risk of "running out of money". In New Zealand, this generally means having to live on NZS alone when expectations were higher. People can also be concerned about dying earlier than expected not having enjoyed spending all the money they could have done. This is mortality risk.

2.27 Longevity risk should be of greater concern than mortality risk because most adult New Zealanders underestimate how long they are likely to live: men on average by over five years and women by over seven years²⁶. Older New Zealanders are generally better at estimating how long they might live than younger New Zealanders. Partly due to lifespan expectations, many New Zealanders intend to retire earlier than might be considered financially ideal²⁷.

²⁵ O'Connell (2012; Stallard (2006).

²⁶ O'Connell (2012) Chapter 8.

²⁷ O'Connell (2012) Chapter 9.

2.28 New Zealanders can find an estimate of how long they might live, based on the average expected for their age and gender, using the Statistics New Zealand *How long will I live?* calculator²⁸. The calculator shows three scenarios of population longevity to indicate the uncertainty of prediction, but no such tool can take into account the inherent uncertainty in age at death for an individual within a scenario. This is the main source of longevity risk for an individual making financial plans for retirement.

2.29 For example, Figure 6 shows the distribution of expected age at death under the median scenario for the cohort of female New Zealanders, born in 1950, who reach age 65 in 2015. Deaths for the same cohort of males follow a similar shape, although with more deaths at ages 65 to 90 so the key indicators are at younger ages²⁹.

- For females, while the average lifespan is 89 years, the most common (modal) age at death is 92. One in five women from this cohort is expected to live to at least age 95.
- For males, while the average lifespan is 86 years, the most common age at death is 89. One in five men from this cohort is expected to live to at least age 93.

2.30 The estimated average remaining lifespan for an individual decreases with age, as does the amount of uncertainty in that estimate. However, the uncertainty does not decrease as fast as the average. Table 2 shows how uncertainty (measured by standard deviation) is a higher proportion of the average at older ages. This increasing relative uncertainty means that the benefit of protecting against longevity risk generally increases with age, although the absolute value will depend on individual financial and other circumstances.

²⁸ http://www.stats.govt.nz/browse_for_stats/health/life_expectancy/how-long-will-i-live.aspx.

²⁹ Data as for Figure 6. Modal age is the single age at which most deaths after age 65 of that cohort occur.

Figure 6³⁰: Estimated number of deaths at each age (from 65 to 100) for 100,000 female New Zealanders who reach their 65th birthday in 2015

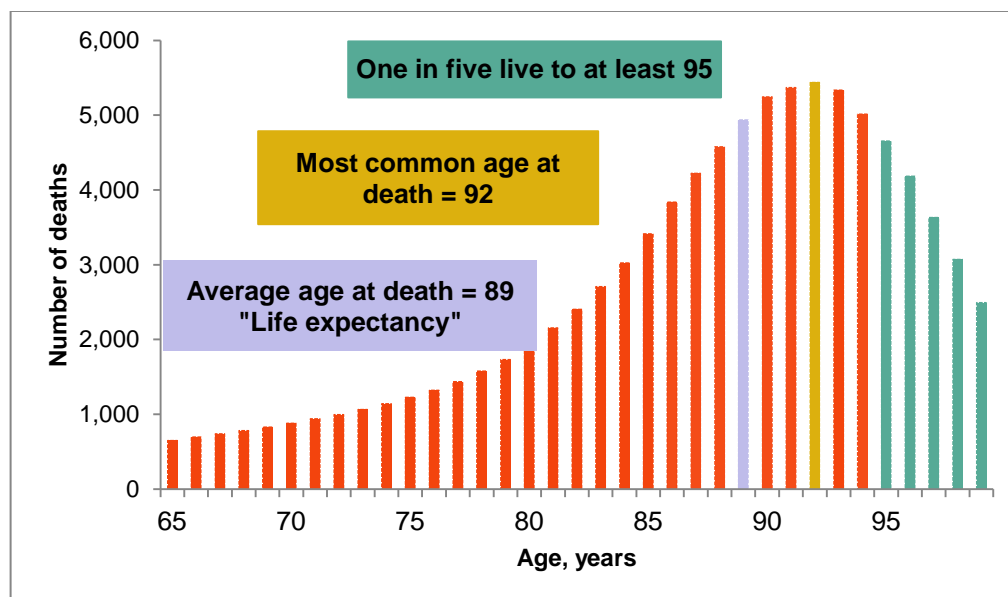


Table 2³¹: Increasing relative uncertainty in longevity by age, cohort born 1939, females

Age, years	0	55	65	75	85
Average expected length of life remaining (e_x), years	78.5	30.7	22.4	14.7	8.0
Standard deviation of expected length of life remaining (s_x), years	21.8	9.3	7.6	5.6	3.5
Relative uncertainty (s_x/e_x), %	28%	30%	34%	38%	44%

³⁰ Calculated from Statistics New Zealand cohort life tables (updated September 2014) and 2014 (base) national population projection mortality assumptions, based on medium death rates. Average age at death (cohort e_{65}) from *How long will I live?* calculator accessed 29 January 2015. See O'Connell (2012) and (2013) for more detail.

³¹ Calculated from Statistics New Zealand (2014) cohort life tables.



2.31 *Health is one of the biggest causes of cost uncertainty in retirement.*

High costs can be incurred because of the need for long-term care near the end of life. Not all older people will need long-term care: in the UK it is estimated that 1 in 3 women and 1 in 4 men will require long-term care³².

2.32 New Zealanders who are assessed as needing such care are able to apply for a Residential Care Subsidy from the Government. They will be financially assessed by an asset threshold test and an income test.

2.33 Where the level of assets exceeds the asset threshold, residents must meet the cost of their care up to a maximum amount, which varies from \$869.26 to \$955.29 per week³³. The asset threshold is \$218,423 for individuals, or couples where both are in care³⁴. Couples where only one is in care have a lower threshold (\$119,614 excluding the value of any house and car). Savings and investments, including accessible KiwiSaver and retirement savings, are included in the asset assessment. Personal belongings are exempt.

2.34 Where the level of assets is equal to or below the threshold, an income test is performed to determine how much of the cost of care must be paid for by the resident(s). Most income, including NZS, is included in this assessment, although income earned from assets up to a set level is exempt. The level of subsidy depends on the type of care the person is assessed as requiring.

³² Products Research Group of the Pensions and Long Term Care Working Party (2014) p. 13. Care defined by eligibility criteria in Care Act 2014.

³³ Weekly amount including GST, from 1 October 2014. The lower figure applies in some rural regions; the higher in Auckland City. *New Zealand Gazette*, 2014-go5720.

³⁴ Figures from 1 July 2014.



2.35 If long-term care is required, it is uncertain for how long it will be needed. The means-testing rules applied will be those current at the time. Therefore, how much an individual needs to fund for the possibility of paying long-term care costs is inherently uncertain, especially when viewed from retirement 20 or 30 years earlier.

2.36 Apart from costs covering health care, other costs in retirement (just as in working life) are unpredictable or "lumpy". For example, house maintenance costs can be large and irregular. Moving to a retirement village can be a way of fixing or regularising costs to some extent. Charges payable by the resident are fixed and the retirement village operator maintains the residences and facilities.

Growing number of New Zealanders with KiwiSaver assets

2.37 KiwiSaver was introduced in 2007 with the aim of improving New Zealanders' financial situations in retirement:

The purpose of this Act is to encourage a long-term savings habit and asset accumulation by individuals who are not in a position to enjoy standards of living in retirement similar to those in pre-retirement. The Act aims to increase individuals' well-being and financial independence, particularly in retirement, and to provide retirement benefits.

KiwiSaver Act 2006 Section 3 (Purpose, first paragraph)



2.38 KiwiSaver provides an account in which savings accumulate. Access to these funds is generally restricted until age 65. Because of its recent introduction, and because it has become the main designated retirement savings vehicle for most working New Zealanders, KiwiSaver provides a significant new single source of retirement funding³⁵. This paper considers the choices facing the growing number of New Zealanders who will be able to access their KiwiSaver accounts on their 65th birthday³⁶.

2.39 There are currently 2.4 million KiwiSaver members, of which 2.2 million are not on a contribution holiday³⁷. Assets totalled \$21.4 billion at 31 March 2014³⁸.

2.40 There are around 375,000 New Zealanders who will be able to receive benefits in superannuation schemes other than KiwiSaver³⁹. These schemes have assets totalling around \$19 billion⁴⁰. The number of members in superannuation schemes has fallen in recent years and this trend is expected to continue as KiwiSaver grows. Some superannuation scheme members are able to receive benefits in the form of income, but most will receive a lump sum which they will then need to manage through retirement. KiwiSaver is more significant on the retirement landscape, but most of the solutions applicable for maturing KiwiSaver balances will also apply to lump sums from a superannuation scheme, or indeed to other private savings.

³⁵ KiwiSaver may not be comprised entirely of "new" funds, as some of the saving might have taken place in other vehicles, but KiwiSaver means New Zealanders now mostly organise their retirement savings in one product.

³⁶ Some may have already accessed some funds for first home purchase or hardship reasons, but we consider here how 65 year olds could use KiwiSaver money in retirement.

³⁷ Inland Revenue (2014).

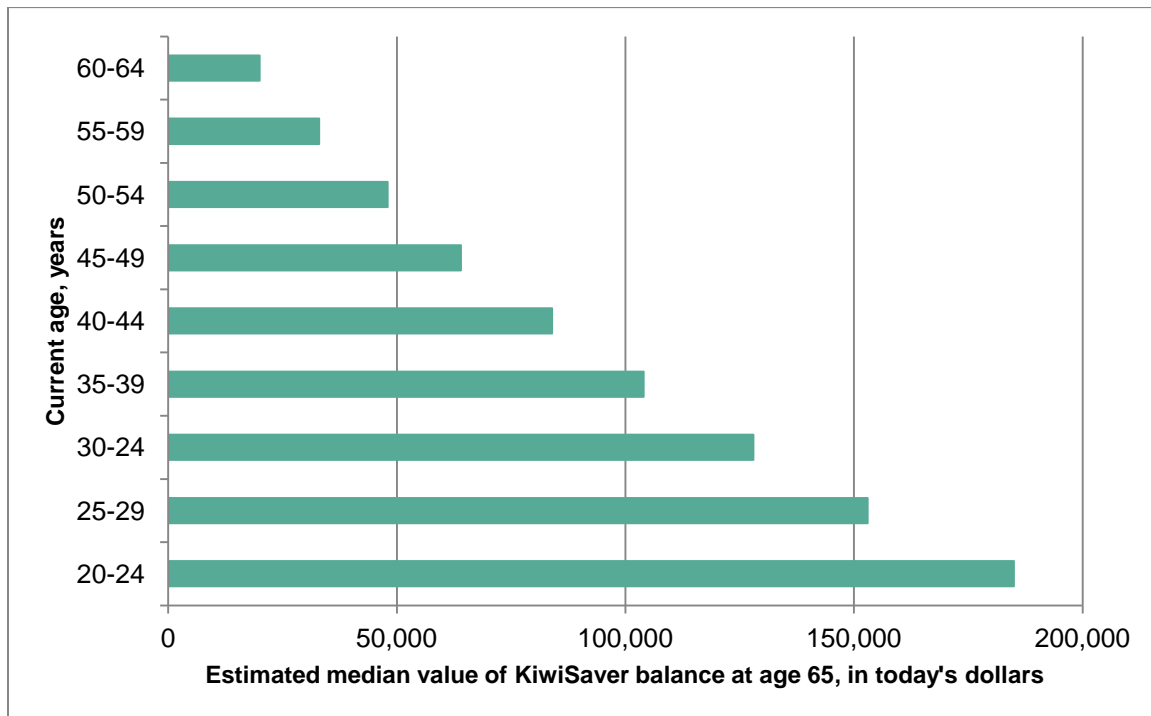
³⁸ FMA (2014a).

³⁹ Estimated number of non-pensioners from FMA (2014b) and GSFA (2013).

⁴⁰ As at balance dates in 2013, estimated from FMA (2014b) and GSFA (2013).

2.41 We have estimated the size of KiwiSaver balances maturing in future, by assuming current investment choices, contribution rates, member tax credits, tax treatment and policy settings continue. In practice, any of these could change in future. For example, future KiwiSaver balances at age 65 could be higher than shown if contribution rates rise or provider costs reduce, or people may keep saving to achieve higher balances beyond age 65. Balances could be lower if more money is taken out for first home purchase or if more people take contribution holidays. However, on the assumption of no change from current settings, Figure 7 shows that the median maturing KiwiSaver balance is estimated to reach \$100,000 in real terms for the group currently aged 35-39 years, and \$150,000 for those aged 25-29.

Figure 7⁴¹: Estimated distribution of maturing KiwiSaver balances available at age 65, by current age group, in real \$'000



⁴¹ Thanks to ANZ, ASB, Mercer and Milford for providing sufficient data to enable these projections to be made. More detail on the assumptions underlying the projection is in Appendix 1.



2.42 The analysis suggests that about half of the KiwiSaver members reaching age 65 in twenty-five years' time will have a KiwiSaver balance of \$100,000 or more in real terms. That is, over 90,000 KiwiSaver investors currently aged between 35 and 39 will accumulate over \$100,000 in today's dollars in KiwiSaver by the time they reach age 65. We estimate 160,000 of those currently aged between 18 and 24 will have accumulated over \$200,000 in today's dollars by the time they reach age 65.

2.43 KiwiSaver will change the retirement landscape. It was not introduced with the purpose of providing a particular form of retirement benefit. As more and more New Zealanders reach age 65 with a KiwiSaver balance they will face the question of how to use their KiwiSaver money well. The estimated future size of KiwiSaver balances suggests that solutions will be needed for a range of fund amounts. However, it will be some years before significant numbers of New Zealanders have substantial balances.

Chapter 3: Solutions for income streaming in retirement

3.1 It is a commonly stated problem in the New Zealand policy debate that KiwiSaver or other assets cannot easily be converted into income in retirement. There has been a tendency to concentrate on annuitisation as the only, or main, solution. For example:

...KiwiSaver is a firmly established part of the New Zealand retirement income framework. ... it is best seen as a way to augment a well-supported universal state pension that has comprehensive coverage. Therefore policy attention to allow it to provide secure and regular income in retirement is critical.

St John et al. (2014) p. 29

The increase [in life expectancy] to date already presents challenges however. If people live longer than once was expected, it may frustrate plans to create a market in annuities – assured incomes for life. Furthermore, it complicates individual decisions over how to spread their earned income across their life, including an extended old age.

Royal Society of New Zealand (2014) p. 9

... the government would become an annuity provider, as mooted by the Capital Market Development Taskforce⁴², and set up a public annuity fund... This fund would receive payments from eligible individual contributors and eventually pay them each an annuity, calculated to be actuarially fair and based on the value of the individual's contributions. A limit would be set on the amount of annuity an individual could purchase, corresponding with the aims of the KiwiSaver legislation....A public annuity fund could solve the decumulation problem and ... would present no novel administrative problems. Berthold (2013) pp. 18 and 20

⁴² Capital Market Development Taskforce (2009).



... annuitisation of balances on retirement is the most obvious means by which KiwiSaver can be fully integrated with the overall retirement income framework. ...priority should ... be given to encouraging market responses as growing balances make these more commercially viable, and to fully exploring other ideas about annuitisation – for example the ideas contained in the Ministry of Social Development paper referenced above...⁴³

[Recommendation] That the Government agree to the Retirement Commissioner convening a broadly representative review to determine the viability of different approaches to the voluntary annuitisation of savings, including KiwiSaver balances on retirement.

Retirement Commissioner (2013) pp. 75-76

3.2 Despite the debate often being framed as one about annuitisation, there are several other products or strategies that can convert a lump sum (from KiwiSaver, other savings, a home equity loan or from selling property) into income. A selection of these is outlined in Table 3. The table distinguishes those currently available in New Zealand.

⁴³ That is, Berthold (2013) from which the quote above derives.



Table 3: Income streaming products or strategies

Available in New Zealand	
Managed drawdown	Allows an income to be drawn in instalments of a specified size and frequency from a nominated fund. The process will be automated and could be calibrated following professional advice. A fee may be charged by the service provider.
Do-It-Yourself drawdown	As above, but the investor will control the drawdowns themselves, with or without advice from a third party.
KiwiSaver drawdowns	Most KiwiSaver members aged over 65 have access to a regular drawdown or income within their KiwiSaver product ⁴⁴ . In some cases these are subject to minimum amounts (\$10-\$500) and specified frequencies (weekly, fortnightly, monthly or quarterly). Some managers limit the number of partial withdrawals per year to four. Some also require minimum residual account balances of \$1,000-\$2,000 below which the full account balance is paid out and the account closed.
Capital assured funds	Products provided by life insurance companies or fund managers that aim to provide a stable stream of returns over a relatively long investment period. The provider will operate a smoothing policy, which usually involves averaging net returns over a specified period e.g. 10 years. A reserving policy and an investment strategy will operate in tandem to allow a stabilised rate of return to be credited to members.
Term deposits	Simple, interest-bearing instruments issued by banks and building societies, typically over short horizons, although their terms may extend to up to five years. They currently yield 3 - 6% pa before tax. In some countries (for example, the UK) preferential yields may be available on such products to people aged 65 and over. In New Zealand, some term deposits pay interest as it is earned on a periodic basis, allowing the investor to access a more frequent income stream.
NZ government bonds	Debt instruments issued by the New Zealand Government over terms longer than one year. Government bonds currently offer gross yields of around 3 - 4% pa. A combination of the semi-annual interest (or 'coupon') payments, as well as a return of capital on maturity, can provide income on lump sum investments. Inflation-linked issues provide coupons and redemption amounts that increase in line with inflation.

⁴⁴ We confirmed through interviews that the following KiwiSaver providers have such a mechanism: AMP, ANZ, ASB, BNZ, Fisher, KiwiBank, Mercer, Milford, SuperLife and Westpac. This represents 95 per cent of KiwiSaver members.



Managed Income Funds	<p>Some investment managers offer Income Funds which aim to return between 4% and 6% pa gross on a monthly or quarterly basis yet also provide for modest capital gain. These products target total gross returns after expenses of between 5% and 9% pa. While not strictly decumulation products, they can provide regular income. Investors may also make capital withdrawals either periodically or as required.</p>
Rental property	<p>Some investors may buy a residential or other property and use the rental receipts as a source of income. Rental income is usually subject to periodic increases which can generally be expected to keep pace with inflation.</p>
Equity release	<p>There are several variations of equity release products (sometimes called reverse mortgages or home equity loans). These offerings allow investors to draw funds from a house, usually a residence they own. The provider of such products will assume ownership of the house (either in whole or in part) and, in return, pay the investor a regular income (or annuity) until they die, or a lump sum, or both, calibrated to the assessed value of the house and the investor's assessed longevity prospects.</p>
Life interests	<p>Life interests in a residential property are arranged to allow a person or persons the right to live in a nominated property for the remainder of their lifetime, in exchange for a lump-sum payment. While this does not provide income streaming for the life tenant, it obviates the need to pay regular rent, mortgage payments or the full purchase price of a residence.</p>
Not currently available in New Zealand	
Annuity (nominal)	<p>Products designed specifically to provide a regular income to the investor for a specified period (annuity-certain) or for the remainder of the investor's life (life annuity). Instalments are paid with a specified frequency e.g. monthly or weekly. Variations are possible; for example, joint-life annuities contingent on the lives of more than one person, or life annuities that are also paid for a guaranteed minimum term. The income provided by the insurer is usually paid in exchange for a sum of capital (the premium). The annuity income is set actuarially. The calculation may use only a small number of parameters (e.g. age, occupation) or individuals can be fully medically underwritten which results in enhanced annuities for people with medical conditions. There were once several commercial providers of such products in New Zealand, but the last remaining provider in New Zealand ceased writing new annuity business in 2013. There is a proposal that the Government could offer annuities for purchase⁴⁵.</p>

⁴⁵ Berthold (2013).

Annuity (inflation-linked)	Similar to nominal annuities but designed to increase in line with an inflation index. It is also possible to provide annuities whose instalments increase at a fixed rate that may or may not match inflation.
Shaped annuities	For example, deferred annuities (instalments begin after a specified 'waiting period') and U-shaped annuities (instalments are designed to be higher both in the early and later years of retirement).
Variable annuities	Insured products which pay a regular income like an annuity. The income represents both interest on the capital sum and an element of capital drawdown. Both the longevity risk and investment performance may be guaranteed using complex risk management tools.

3.3 Annuity products are championed because they provide some certainty in the otherwise uncertain retirement phase. However, uncertainty also calls for flexible solutions. It is difficult to provide both certainty and flexibility in combination. In Table 4, we consider how these products compare against criteria designed to challenge how well each stands up to the diversity of New Zealanders' needs and the uncertainties faced before and during retirement.

3.4 The clearest distinction from a consumer's perspective is that investment products or strategies (which are those shaded in Table 4) generally do not provide protection against longevity risk, but do protect against mortality risk as the capital remaining on death is available to pass onto heirs. The opposite is true of the annuitisation-style products which generally transfer ownership of the capital to the provider in return for an income for life. Further assessment of each product or strategy follows the table.



Table 4: Assessment of income streaming products or strategies

	Protection against longevity risk	Protection against mortality risk	Protection against credit risk	Protection against inflation risk	Protection against investment risks	Transparency	Simplicity	Personal effort	Liquidity	Flexibility	Portability	Cashflow streaming	Regulatory protection	Reasonable fees and costs	Availability of matching assets
Already available in NZ															
Managed drawdown	X	√	=	=	X	√	√	=	=	=	√	√	=	=	√
Do-It-Yourself drawdown	X	√	=	=	X	√	=	X	√	√	√	√	X	√	√
KiwiSaver drawdowns	X	√	=	=	X	=	=	=	√	√	√	√	√	=	√
Capital assured funds	X	√	=	X	√	=	X	=	=	X	=	X	√	=	√
Term deposits	X	√	=	X	√	√	√	=	=	√	=	=	√	√	√
NZ government bonds	X	√	√	X	X	√	=	=	√	X	X	=	√	√	√
Managed Income Funds	X	√	=	=	X	=	X	=	=	=	√	=	√	=	√
Rental property	=	√	X	=	X	√	√	X	X	X	X	=	X	=	√
Equity release	√	=	=	=	√	X	=	√	X	X	X	√	√	X	√
Life interests	√	X	=	=	X	=	√	√	X	X	X	X	X	√	√
Not currently available in New Zealand															
Annuity (nominal)	√	X	=/√	X	√	X	√	√	X	X	X	√	√	X/√	X
Annuity (inflation-linked)	√	X	=/√	√	√	X	√	√	X	X	X	√	√	X/√	X
Shaped annuities	√	X	=/√	=	√	X	=	√	X	=	X	√	√	X/√	X
Variable annuities	=	=	=/√	=	=	X	√	√	=	=	=	√	√	X/√	=

The criteria are explained further in Appendix 2, and the assessments are made using the following symbols:

- √ Likely to meet criteria
- X Unlikely to meet criteria
- = May meet criteria, or could do if designed in a particular way
- X/√ Assessments for commercially-provided/Government-provided

Shaded products are referred to in the text as "investment products or strategies".

- 3.5 **Drawdown strategies** (including those available via KiwiSaver schemes) provide income streaming, control and flexibility but do not protect users against longevity and investment risks.
- 3.6 **Capital assured funds** offer stabilised returns but offer no direct protection against longevity and inflation risks.
- 3.7 **Term deposits and government bonds** offer the advantages of simplicity, transparency, credit risk protection and minimal to zero costs but offer neither inflation nor longevity hedging (if capital is drawn down).
- 3.8 **Managed Income Funds** are in general volatile, difficult for most to understand, and are unlikely to offer structured income streaming. Costs borne by the investor can be high but a handful of low-cost options (e.g. passive investment and exchange-traded funds) are available.
- 3.9 **Rental property** keeps control in the investor's hands and may allow for a regular income stream as well as some protection against inflation. However, it is subject to the risk of default on payment from tenants, is illiquid, inflexible, not portable, and can be complex and demanding to manage.
- 3.10 **Equity release products** can offer protection against longevity risk but may not allow for protection against mortality risk. There is no exposure to capital markets volatility and cashflow streaming can be a key part of the offer. However, as with conventional annuities, they are inflexible and they lack transparency, liquidity and portability. They generally provide modest amounts, with typical maximum loan to property value ratios in the range of 20 to 40 per cent (increasing with age)⁴⁶.
- 3.11 **Life interests** have implicit protection against longevity risk and the rental portion of inflation risk. They are reasonably simple in concept but, once in place, likely to be irrevocable.

⁴⁶ Ford (2014).

3.12 **Annuities** address longevity risk, can address inflation risk and provide a simple, low maintenance solution for retirees. However, they are usually illiquid and can lack portability and flexibility. The offering is simple to understand, but how it is provided is not transparent to the consumer. They are also tax inefficient under current rules (see section 4.23). Government-provided annuities have the potential to address the credit risk and cost disadvantages of commercial annuities, assuming they could be offered on a not-for-profit basis.

3.13 Early evidence from the first tranche of KiwiSaver members eligible to withdraw funds after 5 years of membership and reaching age 65 suggests that:

3.13.1 Regular KiwiSaver drawdowns are not popular, with an estimated 42 per cent of this tranche having already taken a lump sum(s) and a further 39 per cent with as yet untouched balances intending to withdraw only lump sums. Only 4 per cent have either already withdrawn, or intend to withdraw, regular payments. 1 per cent don't plan to ever withdraw all of their savings and 14 per cent are unsure⁴⁷.

3.13.2 As it is likely there is low awareness of the regular drawdown option currently, and as it is more popular for those with larger balances, drawdown may become more prevalent as KiwiSaver matures⁴⁸.

3.13.3 Over half of KiwiSaver leavers want to re-invest their KiwiSaver savings, primarily for a better return or security and to have easy access to the money. So far, this investment appears to be into short-term savings and term deposit accounts rather than stocks and shares or rental property⁴⁹.

⁴⁷ Colmar Brunton and Inland Revenue (2013) p. 12.

⁴⁸ Colmar Brunton and Inland Revenue (2013) p. 7, p. 11.

⁴⁹ Colmar Brunton and Inland Revenue (2013) p. 5, p. 25, p. 36.

3.14 From this analysis we conclude:

3.14.1 Some suitable ways of providing for income already exist in

New Zealand. For example, funds can be drawn down from within KiwiSaver or invested in income-generating assets such as term deposits. If capital is not consumed then investment income should last in perpetuity, but if capital is consumed (that is, drawn down) then income is not guaranteed for life. As things currently stand, annuities which guarantee income for life are unavailable. However, most people have guaranteed lifetime income from New Zealand Superannuation.

3.14.2 The critical question is less about "What products need to be made available?" but more "How can an individual put together an appropriate mix of solutions?"

For needs beyond NZS, no single product can offer all of the desirable features that retirees may wish to see. For this reason it is likely that, where funds allow, a blend of two or more complementary solutions would be suitable - and that mix may change over retirement as circumstances change.

3.14.3 Practical and relevant financial guidance will become ever more critical. This is because:

- Many of the available products and strategies are complex, may not offer good value for money and suffer from a lack of transparency and flexibility.
- Individuals are likely to need help in finding a mix of solutions which is appropriate for their specific circumstances.
- As KiwiSaver balances grow, the number and complexity of options individuals would be willing to consider will increase, as will the number of potential options if supply grows to meet demand.
- As the potential impact of risks and personal needs and preferences change during retirement, so guidance will be needed not just before or at retirement but in the years following.

Chapter 4: Some issues raised

4.1 In this chapter we provide some conclusions to the five key questions which we believe are central to the retirement income debate.

A. How might needs for products change during retirement as the potential impacts of the key risks - longevity, mortality, credit, inflation and investment - change?

4.2 As discussed in Chapter 2, inflation and investment risks are ever-present throughout retirement. Their potential impact will vary by individual circumstances. Inflation and investment risks are likely to matter more at the start of retirement when funds are greatest and the time horizon longest.

4.3 Sensitivity to credit risk may increase with age as capital reduces. Other factors dictating investment choices may also change through retirement. For example, the desire to spend effort in self-managing property investments for rental income or in do-it-yourself draw downs may decrease with age, while the appeal of the "set and forget" aspect of purchasing an annuity may increase with age.

4.4 As shown in section 2.30, relative longevity risk increases with age. This implies that there is increasing logic to buying an annuity as age increases⁵⁰. Theoretically, the size of the risk of "running out of money" due to investment uncertainty can be calculated and compared to that due to longevity uncertainty. Buying an annuity becomes a better choice than leaving money invested at the age at which longevity risk becomes more significant than investment risk. This age will depend on an individual's financial circumstances, risk tolerance, available products and investment returns.

4.5 If a preferred strategy is to buy an annuity at age, say, 80, then it could be achieved either through buying a deferred annuity at an earlier age or by saving capital with the intent to buy an annuity on reaching age 80.

⁵⁰ Ezra (2011).

- 4.6 People with health issues that may shorten their life expectancy who want security of income may wish to purchase enhanced annuities. Enhanced annuities take individuals' health impairments into account and can achieve better value for money than standard annuities for those in poor health.
- 4.7 The choice of what type of annuity to buy is difficult to get right, and what is "right" may change through retirement. The Financial Conduct Authority (FCA) in the UK warned that: *"While it is important for consumers to optimise their income in retirement, ...the right time to annuitise and the right 'shape' annuity is very much based on individual consumer circumstances."* By timing, the FCA suggested it may be more appropriate to use drawdown at the start of retirement or to defer annuitisation. By shape it referred to *"single life or joint life, level or escalating, enhanced or standard, and with or without guarantee"*⁵¹.
- 4.8 **Diversity in individual circumstances means that people will rank the importance of the key risks differently, and their preferences may change during retirement.** As a result, we believe that there is unlikely to be an appropriate one-off "standard" or "default" strategy that will be suitable for everyone at all times⁵².

⁵¹ FCA (2013) p. 8.

⁵² The Financial System Inquiry in Australia has recommended that superannuation fund trustees pre-select an option which may be a combination of products providing an income stream, longevity risk management and flexibility. How this is to be achieved is not clear. The Financial System Inquiry (Murray) (2014a).

B. In what circumstances are annuities preferable to drawdown or simply investing for income?

- 4.9 For some time it has seemed a puzzle that people prefer not to buy lifetime guaranteed annuities when economists viewed it as rational to do so⁵³. However, there is now substantial international evidence of valid reasons why annuities do not meet some consumers' needs⁵⁴. Many people would prefer drawdown or simply investing for income so as not to lose access to capital or flexibility in case of financial shocks. Consumers may also fear higher costs in annuities as the charges may be less transparent than in drawdown or investment products.
- 4.10 Conversely, some consumers may prefer to annuitise provided they trust they can achieve reasonable value for money, so they can be certain of future income levels however long they live. Making the choice of an annuity may be stressful, but the ongoing stress of managing investments is then removed. Some consumers may value these benefits at some stage in their retirement more than the ability to retain capital or pass it on to their heirs.
- 4.11 Lifetime annuities will provide good value for money for people who die significantly later than the average expected age at death for their cohort, and poor value for money for people who die early. However, as age of death is unknowable at the time of purchase, value for money of annuities is generally considered by a calculation which assumes lifespans turn out as expected. The "Money's Worth" of a lifetime guaranteed annuity is calculated as the present value of future income payments assuming average lifespan turns out as expected, as a ratio of the purchase price⁵⁵.
- 4.12 The Financial Conduct Authority (FCA) found that the best UK annuity rates for a purchase price of around NZ\$100,000 gave a Money's Worth of 94 per cent - which is reasonable value for money allowing for a 6 per cent cost to cover the cost of the longevity insurance, administration and

⁵³ For example, Brown (2001), Reichling and Smetters (2013).

⁵⁴ Including PPI (2014a), Franklin (2014).

⁵⁵ FCA (2014b)



provider's margin⁵⁶. This means that annuities can provide value for money in a well-functioning market, on average.

4.13 However, value for money of annuities will be compromised for:

- Smaller purchase prices, as sales and administration costs represent a larger proportion of the purchase price, and,
- Excessive profit margins. For example, in the UK, industry practice has led to many consumers buying annuities with rates below the best available⁵⁷.

4.14 Ignoring longevity outcomes, whether annuitisation is a better deal for a consumer than drawing down from invested assets depends on the interplay between the return on the invested assets and the annuity rate (which are market-specific) and the consumer's willingness to risk running out of money and ability to withstand fluctuating and uncertain levels of income. In the UK, the FCA found that drawdown of invested assets could provide a better income on average than the best market annuity if the investments were in equities, but not if in bonds. However, if the capital is invested in equities then capital is more at risk of being exhausted and it is more likely than if investing in bonds that the levels of income will fluctuate and may fall below the comparable annuity income⁵⁸.

4.15 Even where annuities are available, financial planners often argue that not all funds should be annuitised. The first use of a lump sum should be to leave as invested capital so that it is accessible for flexible drawdown, while still providing some interest income. For example:

4.15.1 One recommendation in Australia is that at least AU\$100,000 should be kept as a lump sum (for short term or emergency needs) on top of the Age Pension and that more complex income streaming strategies should be considered only if more funds are available⁵⁹.

⁵⁶ FCA (2014b).

⁵⁷ FCA (2013), FCA (2014b), FCA (2014c).

⁵⁸ See FCA (2014b).

⁵⁹ Rice (2014).

4.15.2 The rules for taking pension savings in the UK recognise the principle of keeping a lump sum before considering other strategies. A tax-free lump sum of up to 25 per cent of the value of the pension fund is allowed.

4.16 Available research suggests that annuities do not appeal to everyone, but do have some appeal to a significant minority of retirees:

4.16.1 In the UK, research carried out soon after the announcement of the removal of compulsory annuitisation or managed drawdown, only 18 per cent of pension savers aged 40 and over say they intend to buy an annuity⁶⁰.

4.16.2 An ANZ survey of New Zealanders aged 55-75 found that 52 per cent were not interested at all in an annuity, with 37 per cent having some interest and only 4 per cent very interested⁶¹.

4.16.3 In New Zealand's National Provident Fund Schemes, where members can effectively choose to receive their benefit as a lump sum or as a pension, around 20-25 per cent of the funds which can be used to purchase an annuity are used to do so⁶².

4.17 **It is not possible to give a universal rule for when an annuity would be a better choice, or better value for money, than drawing down income from invested assets.** It depends on individual circumstances and perception of risk, as well as market conditions. An annuity of some type can be a good product at some point in retirement for those wanting certainty of income, but low demand for annuities reflects that for some people better solutions exist. We believe that a guaranteed lifetime annuity is not the best product for everyone, or for all the funds an individual holds.

⁶⁰ PPI (2014b).

⁶¹ ANZ (2014).

⁶² National Provident Scheme data, year ended 31 March 2014.

C. Would it be possible for the New Zealand market to provide annuities? If so, what changes are needed?

4.18 The few countries with voluntary annuitisation at high levels do not provide a recipe book for annuitisation in New Zealand. Higher rates of purchase of annuities in some countries appear to be due to specific structural reasons including government support (for example, tax incentives) and/or a financial environment which frames annuity purchase differently than would be the situation in New Zealand (for example, Switzerland, Chile and Singapore)⁶³.

4.19 Australia has not developed a significant annuity market despite a private superannuation industry older and larger than New Zealand's⁶⁴. The UK once provided an example of full mandatory annuitisation, but amid market conduct concerns⁶⁵, the government there gradually wound back restrictions and is now set to allow unrestricted access to funds after age 55 from April 2015⁶⁶. Early signs are that annuity sales may fall by as much as half⁶⁷.

4.20 Commercial insurers in New Zealand have been unable to provide an annuity product which is sufficiently attractive to be viable. Compared to investment-based products, annuities have additional risks which require the insurer to keep solvency capital on which the insurer will need to earn a return. The solvency capital cost of some of these risks is higher in New Zealand compared to larger markets:

4.20.1 There is greater exposure to asset/liability mismatch in New Zealand as there are few long-term bonds available.

4.20.2 The key longevity-related risks for an annuity provider are random fluctuations in mortality experience, systematic improvements in mortality and longevity selection (the purchasers of annuity products live longer than the average population). Fluctuations are more

⁶³ PPI (2014a), FCA (2014a).

⁶⁴ The Financial System Inquiry (Murray) (2014b) p. 4.9 and 4.16.

⁶⁵ See FCA (2013).

⁶⁶ HM Treasury (2014).

⁶⁷ Cumbo (2014).



common and/or larger in New Zealand's relatively small longevity risk pool.

- 4.21 In addition, commercial providers need to allow for profits and costs. A small market like New Zealand will lead to higher costs per product than is the case in larger markets. Annuities are complex, specialist and long-term products, so a critical mass of committed expertise is needed to set up and run annuity operations.
- 4.22 As discussed in section 4.13, the value for money of annuities will be compromised by small purchase prices and an uncompetitive market. Both these issues could be problems in New Zealand at least initially as savings balances are low and there will not be many suppliers.
- 4.23 Further, the value for money of annuities is challenged by current New Zealand tax legislation. Investment income of insurance companies is taxed at the corporate tax rate of 28 per cent, but a low income retiree could instead pay tax at 10.5 per cent or 17.5 per cent by saving in a Portfolio Investment Entity.
- 4.24 **We believe it will be difficult to develop a viable commercial market for lifetime guaranteed annuities at reasonable cost in New Zealand.** Even if the Government offered more bonds suited to match annuity terms, and made the basis of taxation on annuities similar to that on investment products:
- New Zealand will always be a relatively small market so that offering full guarantees against longevity risk will require relatively high charges for longevity risk.
 - The small size of the market also implies relatively high marketing and administration costs.
 - There is no mechanism to provide security against credit risk over the term of the annuities.

- 4.25 **The gradual rate of increase in the number and size of maturing KiwiSaver balances provides time for the market to innovate.** We estimate (see Figure 7 **Error! Reference source not found.**) that the median maturing KiwiSaver balance will be below \$50,000 in today's dollars for those aged 50-54 now, with at least ten years to go before funds can be accessed. The median reaches \$100,000 in real terms in around twenty-five years' time.
- 4.26 We expect market innovation will develop to meet the growing market for income-streaming products: drawdown, home equity and annuity-type products. Innovation may focus on wealthier customers and on niche products which leave some risk with the customer. We note that regulators have been responsive to new business cases⁶⁸, and we hope this continues.

D. Should the proposal of a full state-provided voluntary annuity solution be developed further? If so, what are the critical issues?

- 4.27 Given the difficulties facing the private market, the Government may be the only feasible provider of lifetime guaranteed annuities in New Zealand.
- 4.27.1 Government-provided annuities should be better value for money than commercial products. Profit loadings and solvency requirements need not apply. One provider for all New Zealanders should minimise costs by achieving greater economies of scale and mitigating actuarial risks across the largest risk pool.
- 4.27.2 Government-provided annuities would also provide security in terms of credit risk.
- 4.28 However, although the Government may be the best provider of annuities, there needs to be a policy rationale for the Crown to take on more longevity risk than it already holds from NZS, the Government Superannuation Fund and the National Provident Fund. Most New Zealanders will have their basic retirement income needs met through NZS, which provides lifetime protection against longevity risk.

⁶⁸ For example RBNZ (2014).

- 4.29 The Government may have an interest in how KiwiSavers use their funds. It incentivises saving in KiwiSaver, and has incentivised more heavily in the past than currently. The objectives underlying the KiwiSaver Act do not provide a clear rationale for KiwiSaver funds to be taken as income, but Government supports the Retirement Commissioner's proposal to review the viability of approaches to the voluntary annuitisation of savings⁶⁹.
- 4.30 Because we believe that further lifetime guaranteed income above NZS is not the best option for everyone we would not support government provision of annuities under a rationale that sets up annuitisation as a single universal best solution. However, there could be a rationale - for example, based on market failure - for the Government to provide an option for New Zealanders (or only KiwiSavers) to use some of their savings to buy a lifetime annuity.
- 4.31 A critical policy issue is how equitable to all New Zealanders are the costs and benefits of the Government providing this option to those who would want it. This depends partly on how the product would be priced. For example, should set up costs be shared across those who buy the product, or subsidised by all taxpayers? Regardless of how it is set up, the provision of annuities will not be cost-free to the Crown. Even at reasonable prices that anticipate longevity risk, the Crown will bear residual risk, including selection risk. It may not be an equitable policy if, for example, only wealthy people take up the option to buy a government-provided annuity.
- 4.32 The product design and the target customers would need careful consideration. The real demand for annuity products, by potential customer segment, will need to be assessed carefully. For example:
- 4.32.1 An annuity starting at age, say, 85 rather than 65 would involve a different level of risk to the Crown, and would benefit a different subgroup of the population.

⁶⁹ Retirement Commissioner (2013)

4.32.2 In the UK, around half of the annuities sold are enhanced⁷⁰.

Enhanced annuities bring different equity issues and are more costly because of medical underwriting.

4.33 If the Government decided against provision of fully guaranteed lifetime annuities, it could consider alternatives at potentially lower risk. For example:

4.33.1 Risks could be shared with the customer, for example if government annuity payments could be changed according to actual mortality or investment performance. However, this alternative removes certainty of income for the customer.

4.33.2 The Crown could bear only part of the longevity risk, for example by becoming a reinsurer for extreme longevity, so that commercial providers offering lifetime annuities would need less solvency capital. However, this still leaves some risk with the Crown.

4.34 **Government provision may be the only practical way in which all KiwiSavers could have the option to turn their savings into guaranteed lifetime income.** However, we do not see it as a straightforward or quick solution. We would not like to see market innovation stifled by a futile wait for government provision, so it would be helpful if the Government, taking relevant advice, signalled its interest in state intervention in annuity provision as soon as possible.

⁷⁰ Edwards (2013).

E. Given the diversity of needs, the uncertainties inherent in the retirement phase and the increasing size of the retiring population, what can be done to give New Zealanders more guidance on options for managing savings in retirement?

4.35 **We believe that a guidance focus to the problem is more appropriate than a product focus.** We suggest two approaches are worth developing in order to help guide people to ways to use their resources in retirement to meet their individual needs:

- Simple approved "rules of thumb" freely available, for example on the Sorted website and used on product literature.
- Access to a simple form of approved independent financial guidance at suitable moments during retirement, with consideration to be given to whether this should be a default setting (that is, auto-enrolled but can opt-out) for KiwiSavers with significant balances.

4.36 Simple "rules of thumb" are available in other countries, and are recommended because they offer simple guidance which helps to frame good practice for a consumer, without being overly prescriptive⁷¹. A trusted source of the rules would give comfort, for example, if there were a consistent set of rules used on Sorted and in regulated financial advice, which were derived using expert advice on technical aspects of the risks involved and on how best to frame the communication to avoid negative bias.

4.37 The parameters and usage would need to be worked out for the New Zealand context, but example formats of the simplest rules of thumb might be:

- "Leave up to (say) \$100,000 in the bank".
- "Drawdown (say) 1/20 of original balance each year".

4.38 Simple rules of thumb could be sufficient for most KiwiSavers who have modest balances. For those wanting more detail than the simplest rules, web-

⁷¹ FCA (2014a).

based tables or calculators could be developed to incorporate more personal parameters beyond age and capital available, to compare different options from the interplay between individual risk tolerance and income requirements.

4.39 Financial planning to meet income objectives from individual portfolios, based on modelling risk-adjusted investment outcomes, is available from financial advisers and currently appeals to wealthier individuals. There are concerns about the quality, cost and availability of advice. However, concerns about the need for help around retirement financial options should act as a catalyst for rethinking how relevant guidance can be successfully matched to customer need. The review of the Financial Advisers Act in 2015 provides an ideal opportunity to do so.

4.40 Work underway in other countries could help to develop approaches for New Zealand. The Murray review⁷² examined the decumulation phase for superannuation in Australia, but the relevance for New Zealand is affected by the means-testing of the Age Pension. The UK now has a public pension similar in scope and level to NZS, and from April 2015 savers will be able to decide how to receive their defined contribution pensions, although with two relevant differences from the New Zealand environment: access is available from 10 years below the age of eligibility of the public pension (currently at age 55) and the money taken from the pension pot (above a specified tax-free lump sum) will be taxed at marginal rates.

4.41 To accompany the reforms to allow freedom of access to pension saving, the UK Government has issued a "guidance guarantee"⁷³:

4.41.1 Every individual with defined contribution pension savings will have the right to free and impartial guidance on their options as they approach retirement from approved independent and regulated providers, under the "Pension Wise" brand.

⁷² The Financial System Inquiry (Murray) (2014a)

⁷³ HM Treasury (2015)

4.41.2 The service is not full advice. It is intended to *"...equip and empower people to make confident and informed choices on how they put their pension savings to best use; it will help people to ask the right questions but will not itself make specific recommendations"*⁷⁴.

4.41.3 The service will be provided online, by phone or face-to-face, with the initial expected interview time around 45 minutes. The consumer will be provided with a record of their options and possible next steps.

4.41.4 Pension providers will be expected to communicate information about an individual's pension pot in a standard format and will have a statutory duty to signpost individuals to the Pension Wise service.

4.41.5 The service will be fully paid for by a new levy on regulated financial services firms.

4.42 We believe it is worth considering similar independent financial guidance for New Zealanders, and perhaps going further to make it a default for KiwiSavers with a minimum balance of, say, \$100,000. This would mean KiwiSaver providers would automatically enrol qualifying savers into an approved guidance arrangement, with savers having the right to opt out if they did not wish to participate. The current average cost⁷⁵ for a face-to-face service more complex than the Pension Wise example appears to be around \$1,000. The cost could reduce if demand increased. The Government could choose to subsidise the cost or leave the industry or individual to pay. If a barrier to using advice is uncertainty about how to access it or trust its quality, then this seems to be an ideal area for a "nudge".

4.43 **Developing rules of thumb, other tools and guidance in New Zealand would need input from a range of experts, including actuaries.** We are concerned, in particular, to ensure that individuals are informed about longevity, mortality, credit, inflation and investment risks and uncertainties around costs including medical and long-term care needs⁷⁶.

⁷⁴ HM Treasury (2014) p. 19.

⁷⁵ From a survey of advice providers undertaken January 2015. The costs vary significantly, as do the extent of services offered.

⁷⁶ See also IFoA (2014).



Appendix 1:

Assumptions underlying projection of maturing KiwiSaver balances

The following are the assumptions adopted in the projections of KiwiSaver balances available at age 65 referred to in section 2.41.

Inflation, per annum:

Pre-Retirement 2.5%

Post Retirement 2.5%

Salary Growth 3.5%

Nominal returns after fees and tax, per annum:

Conservative (includes Default) 4.0%

Balanced 5.0%

Growth 6.0%

Subsidy rate 50%

Maximum subsidy \$521.43 per annum

Retirement age 65

Mortality in accordance with NZ Life Tables 2010-12.

Longevity improvement 1% p.a.

Current investment choices, contribution rates, member tax credits and tax treatment continue.

The contribution distribution is based on a log-normal distribution with mean of 7.35 and variance of 0.485. These parameters were chosen to match the overall contribution shape as well as the median of \$1,583 and mean of \$1,940.

The whole market was estimated by grossing up from actual membership data obtained from KiwiSaver providers: ANZ, ASB, Mercer and Milford.



Results: Estimated distribution of maturing KiwiSaver balances available at age 65, by current age group, in real \$'000

Age, years	Median \$'000	Interquartile range \$'000
20-24	185	128-265
25-29	153	107-218
30-34	128	92-179
35-39	104	75-143
40-44	84	62-114
45-49	64	49-85
50-54	48	38-62
55-59	33	27-40
60-64	20	18-22

Appendix 2:

Features of income streaming products and strategies

The features of income-streaming products and strategies noted in Table 4 are briefly defined here. Definitions for features of this kind vary but we have attempted to focus on the features that retirees might wish to see in practice. Any assessment of such features is subjective and we welcome further debate on this.

Protection against longevity risk

The risk of outliving one's means is mitigated or removed because the income is designed or promised to last for the individual's entire lifetime.

Protection against mortality risk

Protection against the individual dying earlier than expected and hence not being able to consume or enjoy the resources dedicated to retirement income. This extends to those same resources not being inheritable.

Protection against credit risk (security)

Protection against the party responsible for providing the solution (e.g. life assurance company, fund manager, bond issuer) becoming insolvent, defaulting on payments or being otherwise unable to provide the income anticipated.

Protection against inflation risk

The income provided keeps pace with inflation by means of a reasonably direct link. Where this link is not direct, is partial, or depends on specific features that may or may not be present (e.g. managed funds), we have used the “maybe” indicator.

Protection against investment risks

The income has some form of systematic and constant protection against the expected variability in investment returns i.e. market risk (e.g. bond and equity markets). This protection must go beyond the well-known, statistical benefits of portfolio diversification.



Transparency

We deem a solution to be transparent if the non-expert could be expected to be able to obtain information on its key features without difficulty e.g. pricing, fee levels, likely levels of risk and return, and legal entitlements. Sufficient information on the features must be publicly available.

Simplicity

This feature is closely related to but is not the same as transparency. We deem a solution to be 'simple' if the non-expert user can be reasonably expected to understand its key features and design well.

Personal effort

Once the product is purchased or the strategy implemented, the amount of time and effort the investor needs to spend in managing the product or strategy is minimal. It is important to consider whether the amount of effort required would change over time, for example if the product or strategy has a limited term.

Liquidity

The product or income can be 'cashed up' at short notice and without incurring significant costs.

Flexibility

Different features of the product or strategy are available and in the individual's control e.g. different asset allocations for KiwiSaver funds and managed funds, or different terms and payout options for term deposits and drawdowns.

Portability

The product can be bought, sold and moved from provider to provider with relative ease, at the investor's discretion and without undue cost.

Cashflow streaming

The product or solution provides a predictable, controllable, stable and regular source of income.



Regulatory protection

There is specific regulation and/or legislation in place to protect users of the product or solution.

Reasonable fees and costs

The product or solution can be set up or accessed at reasonable cost to the user. In assessing this criterion we have borne in mind all costs including direct management fees, administration costs, trading costs, legal fees, profit loadings and taxation.

Availability of matching assets

Assets that can back or match the income stream offered reasonably well are readily accessible in New Zealand. While consumers are not affected by this directly, the product is more difficult to provide if matching assets are unavailable.

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