Infometrics

How Big Would the 1974 New Zealand Superannuation Scheme Have Been by 2015 Had it Continued and What Size Retirement Balances and Pensions Could it Have Delivered?

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Authorship

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Objective

This paper looks at the potential effects of the 1974 New Zealand Superannuation Act scheme passed on 26 August 1974, for commencement on 1 April 1975. The scheme was abolished after the change of government in November 1975. The paper addresses three questions:

1. What would be the total size of the scheme in 2015 in terms of Funds Under Management (FUM) had the scheme continued?
2. What would be the balance at retirement for an individual who had been on mean income, median income, or the minimum wage over a 40 year working life?
3. What pension would this provide at retirement in addition to the current New Zealand Superannuation pension?

Background and Assumptions

The 1974 New Zealand Superannuation Scheme had the following key characteristics:

- Compulsory coverage for employees and voluntary coverage for the self-employed.
- Initial contribution rate of 4% (2% from the employer and 2% from the employee), rising to 8% (4% plus 4%) by 1979.
- Funds to be invested 50% in government bonds and 50% in New Zealand equities.
- The tax treatment of the scheme was EET. Contributions were from income that was not taxed, investment returns in one's fund were not taxed, but income on withdrawals were taxed. (It is assumed that withdrawals at age 65 are converted into an income stream with tax paid on that income stream, rather than the tax being paid on the withdrawal itself).

These results are subject to some uncertainty, partly because of poor data and partly because many details of the 1974 scheme or how it might have evolved are unknown. Our provisional assumptions are as follows:

1. Contribution rate: The contribution rate rises from 4% to 8% in annual steps of 1% up to 1979. The first people retiring at the full 8% contribution rate would be eligible for a pension or lump sum in 2019, but the first cohort to have 40 years of contributions could retire from 1 April 2015.
2. Returns: The exact composition of the investment portfolio of the Scheme is unknown. For government bonds we assume the 10 year government stock rate return. For New Zealand equities we assume a multi-sector growth portfolio calculated by Morningstar for the Financial Services Council. A 50/50 mix in effect provides a balanced portfolio. As an alternative Morningstar's muti-sector balanced portfolio could be used. (Further notes on the technicalities of the series are provided in the accompanying spreadsheet).

It should also be noted that the investment activity of the Scheme could have affected the observed historical returns from bonds and equities. This counterfactual is not knowable.

3. Participation: For employees, as it was compulsory, participation is assumed to be 100% from the start. We provisionally assume a 60% participation rate by the of self-employed.[1] This is simulated by including 60% of self-employment income (both farm and non-farm) in the wage and salary base. Users of the spreadsheet can easily change this assumption.

4. Income: For an individual on an average (mean) income we use mean total time weekly earnings annualised. For someone on the minimum wage we use the legal weekly minimum wage rate series annualised. For a median income we simply apply a ratio to the balance obtained for someone on mean income. (Again further details are given in the model spreadsheet). For 2013 these incomes are shown below.

   Mean total time earnings $54,600

   Median earnings $51,900 (based on longitudinal ratio to mean income)

   Minimum Wage $28,200

   In our previous modelling of an expanded KiwiSaver scheme mean is projected at every age according to an estimated age-income relationship (by sex). This is not conceptually the same as the definition of mean income used above, which is a cross-sectional measure.

5. Projections beyond 2013: Projections beyond 2013 are simple extrapolations based on the previous decade and can easily be updated as actual results become available.

Results

On the basis of our assumptions we estimate total Funds Under Management for the 1974 New Zealand Superannuation scheme had it continued would, by 2015, have reached about $278 billion.

If participation by the self-employed was 100% FUM rises to around $300 billion. As a test of this approach, a figure of $309 billion is obtained by grossing up the result for someone on mean income by the number of people of employed. Clearly these measures are not conceptually identical, but should not be too far apart in practice.

Given the mix of 50% debt and 50% New Zealand equities, the value of the 1974 New Zealand Superannuation funds invested in the New Zealand stock market might be around $139 billion in 2015, based on the above assumptions.

[1] In a survey undertaken for the FSC in November 2013 Horizon Research ascertained that of the self-employed, 53% are in KiwiSaver and want to be, 4% are in KiwiSaver and wish they were not, and 11.5% are not in but are prepared to join. Thus eventually we might see about 60% of the self-employed participating in KiwiSaver. We apply this proportion to the 1975 scheme, conscious of the fact that the true proportion can never be known.

In comparison the current market capitalisation of the New Zealand stock market is about $87 billion, of which about only $2 billion is accounted for by KiwiSaver funds.

These numbers should not be added together as some of the savings in the 1974 scheme (had it continued) would simply have been redirected from other equity investments. Furthermore some investors would probably have sought more diversification offshore, given their large exposure to New Zealand equities through the 1974 Scheme. Nevertheless the market capitalisation of the New Zealand stock would almost certainly have been substantially larger than it currently is.

The results for individuals are shown in Table 1.

Table 1: Summary of Results

Measure	Value
Balance in 2015 for someone on mean total time earnings after 40 years of saving.	$269,000
Retirement income per year from investment at 5.5% pa, principal maintained	$14,800
Balance in 2015 for someone on median earnings after 40 years of saving	$256,000
Retirement income per year from investment at 5.5% pa, principal maintained	$14,100
Balance in 2015 for someone on minimum wage after 40 years of saving	$110,000
Retirement income per year from investment at 5.5% pa, principal maintained	$6,100
Balance in 2019 for someone on mean total time earnings after 40 years of saving with contribution rate at 8%	$316,000
Retirement income per year from investment at 5.5% pa, principal maintained	$17,400

The annual retirement income amounts are before tax and would be in addition to the New Zealand Superannuation pension, which is currently about $19,100 per annum after tax for a single person living alone and $14,700 after tax for someone on half of the married rate

For someone who retires in 2019 after being in the scheme for 40 years at the full contribution rate of 8%, the mean balance is $316,000. Assuming the amount is invested at 5.5% pa it would yield an annual pension of $17,400 before tax and leave the principal intact.