

7 March 2013

New Zealand Superannuation Fund comments on Retirement Policy Research Centre (RPRC) report

The RPRC report is available at <http://docs.business.auckland.ac.nz/Doc/PensionBriefing-2013-1-Updating-the-NZSF-performance-numbers-2012.pdf>

Our view is that the RPRC's report is flawed both conceptually and in its methodology.

Firstly, the Fund is a long-term savings vehicle designed to help smooth the future cost to taxpayers of NZ Superannuation. It is only nine years into its investing life and is not due to peak in size till 2050-2060. It is therefore premature to assess the performance of the Fund (especially when the period in question happened to contain the Fund's establishment phase and the most severe financial crisis in a generation).

We consider twenty-year rolling periods to be an appropriate time period against which to measure the Fund's performance, and note that our ability to actively manage (and add value) relative to the key Reference Portfolio benchmark has been growing over time.

That said, since the RPRC paper was published, the Fund has in fact moved ahead of the performance hurdle the RPRC proposes as an appropriate risk-adjusted return (10-year bond yields + 2.5%), on a geometric (time-weighted) and IRR (money-weighted) basis, as well as exceeding its own Treasury Bill and Reference Portfolio benchmarks.

Measures of Return

Assumed average 20% tax rate	NZSF annualised return since inception	Highest annual yield on NZ Govt. Bonds (RPRC approach)	Net of tax highest yield on NZ Govt. bonds (adjusted RPRC approach to reflect point 4, below)	NZSF excess return to Government net-of-tax borrowing cost
Geometric (time-weighted return) to 30/06/12	7.05%	5.90%	5.25%	1.81%
Geometric (time-weighted return) to 31/01/13	8.33%	5.77%	5.13%	3.20%
IRR (money-weighted return) to 30/06/12	6.27% ¹	5.76%	5.10%	1.17%
IRR (money-weighted return) to 31/01/13	7.94% ²	5.63%	5.01%	2.95%

¹ Does not take into account current tax payable at the end of the relevant period. Including current tax payable, the IRR (money weighted) returns would be 6.13% at 30 June 2012 and 7.60% at 31 January 2013.

² Does not take into account current tax payable at the end of the relevant period. Including current tax payable, the IRR (money weighted) returns would be 6.13% at 30 June 2012 and 7.60% at 31 January 2013.

As the table above shows, once the latest Fund values are taken into account, the Fund outperformed the Crown cost of borrowing by more than 3% per annum. This is of course higher than the 2.5% hurdle that the RPRC has proposed.

Turning now to some specific problems with the RPRC approach and methodology:

1. Comparing the Fund's performance to the 10-year bond yield +2.5%, as the RPRC proposes, in effect only measures whether equities have done well relative to bonds over a given (short) period, and does not shed light on the Guardians' ability to add value. The passive [Reference Portfolio](#) benchmark is the best measure of whether the Guardians have consistently added value to the Fund compared to a risk-adjusted hurdle.
2. The Fund controls the performance of money we receive, but not the timing of inflows (contributions from Government) or outflows (tax paid). For that reason, a better measure of return (and the standard measure of investment manager returns) is a geometric return which ignores money flows. The approach used by the RPRC, which places a high importance on the timing of money flows, is therefore flawed.
3. The opportunity cost of 10-year bonds to the Government is not the gross yield but the net yield, after the Government gets the tax paid by investors back. We approximate this difference as about 11.1%, which has a large impact on the size of the performance hurdle calculated by the RPRC (reducing it by \$800m for 11/12).³
4. The RPRC constructs its hurdle by compounding up the annual yield on the 10-year bond observed at the start of the financial year. It is not, in practice, possible for an investor to receive such a return series. In contrast, the Treasury Bill return used as a basis for the Fund benchmark is a realisable return.
5. The idea that the ten-year bond yield (representing the most expensive debt) is the opportunity cost to the Government of the Fund is wrong. The Debt Management Office considers more factors than yield in determining the optimal debt profile for the Government; otherwise it would not issue 10-year bonds in the first place. As a practical matter, the amount of government debt on issue with a maturity of 10 or more years is much less than the current size of the Fund.
6. The comparison the RPRC makes between the Fund's performance and 10 year bond yields + 2.5% is misleading, in that the Fund's performance expectation of beating Treasury Bills plus 2.5% over rolling 20 year periods informed the decision the Board made about how much risk to take on in the portfolio. If the Fund had aimed to exceed 10-year bonds + 2.5%, we would have constructed a Reference Portfolio with more risk and would have enjoyed higher returns over time.

Taking the RPRC's argument to its logical conclusion reveals the questionable assumptions that underpin it. If, as we expect, the Fund achieves a return of Treasury Bills + 2.5% over the next 50 years, we will have created a substantial amount of wealth for the Government, and greatly exceeded the opportunity cost of Government debt. However, the RPRC would still conclude that the Fund was a failure that made the Government worse off if it failed to exceed the RPRC's higher hurdle of 10-year bonds + 2.5%. Such an argument requires an arbitrary and counter-intuitive assessment that exposure to financial market volatility is a great hardship for the Government. Such reasoning may be applicable to an individual investor, operating on a short time-horizon. However, its relevance is extremely questionable when applied to a very long-term investment made on behalf of a Government, which is able to smooth investment returns over a long horizon.

³ The RPRC noted that tax on sovereign debt reduces the cost of Crown borrowing, but ignored this on the basis that some investors in sovereign debt pay no tax (e.g. charities) and more importantly because of an assumption that NZ-issued sovereign debt 100% crowds out debt (and tax payments) that would otherwise be issued. The former effect is very small and the latter assumption is highly dubious given how tiny New Zealand capital markets are in the global context.