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Westpac Institutional Bank

# Save us!

## How much are New Zealanders really saving?

- **New Zealand is often seen as having a saving problem.**
- **There is actually considerable debate about how bad our saving rate has really been.**
- **The debate is unlikely to be resolved any time soon, but the saving record probably hasn't been quite as dire as the official figures suggest.**
- **Household saving probably did fall during the mid-2000s housing boom, but has risen in recent years.**

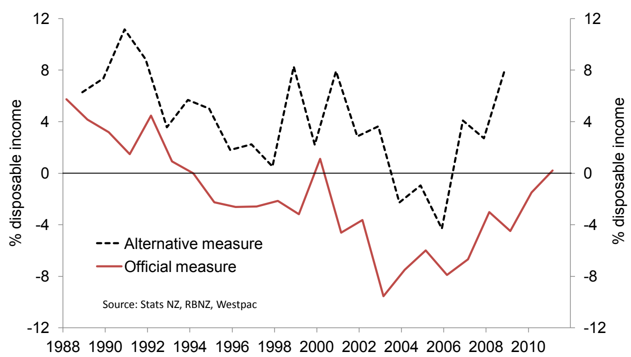
There has been long-standing concern around New Zealanders' low level of saving, which recently found expression in the 2010 Savings Working Group.[1] Perhaps the biggest worry is that a low propensity to save has contributed to New Zealanders' high levels of debt, both at the national and the individual level, making us more vulnerable to financial and economic shocks and potentially pushing the cost of borrowing up as well.

However, there's a very basic reason to treat discussions of the 'savings problem' with scepticism, and that is that there are serious problems with pinning down what New Zealand's saving rate has been in the first place. In this article we tackle some of these issues, doing our best not to get too muddy in the process. The upshot is that there are reasons to believe that New Zealand's saving rate has been higher than the official measures suggest – but we don't know how much higher. And household saving probably fell in the years before the Global Financial Crisis and has been rising since, but again we don't know by how much, and we won't until we get better data.

That's shown in figure 1, which graphs the official measure of the household saving rate against what we regard as the best available alternative (we explain this in more detail below). The alternative is clearly higher overall and doesn't have the same downward trend, though it follows the official measure's broad pattern of ups and downs. That seems to support the idea that the official estimate is too low, and it certainly seems more in line with the kinds of household saving estimates coming out of countries like the US and Australia.

But importantly, one measure isn't obviously 'better' than the other – they just use different (and differently flawed) data sources to get at the same concept. As much as anything, the gap between them highlights the unknowns around saving, and the need to treat any overly confident comments about saving with caution. We can't say how much saving 'needs' to increase if we don't know what it is today. And as a related point, estimates of household saving – on which the debate has tended to focus – are unlikely to be a good starting point for understanding how consumer spending is likely to evolve in the years ahead.

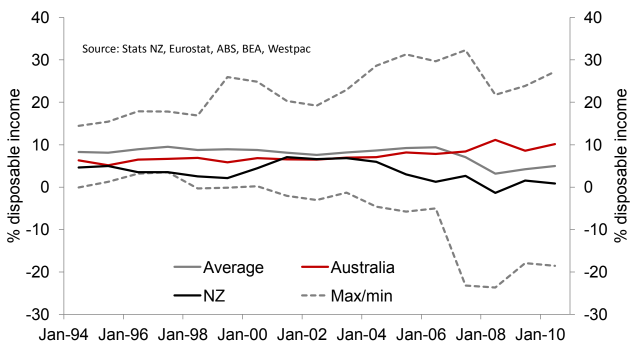
**Figure 1: Two alternative measures of household saving**




### A spendthrift nation?

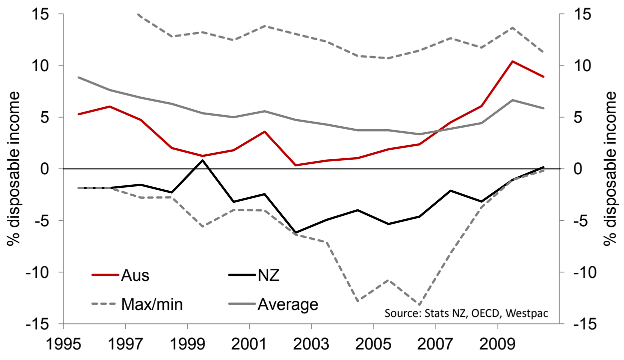
According to official data, New Zealand's saving rate – the share of our national income that gets invested rather than spent – looks worryingly low both by international standards, and by the standards of history. In cross-country comparisons, our national saving rate has consistently been below both Australia's and below the rich world average (figure 2). And the data suggest that this low national saving rate can be largely attributed to low household saving (rather than low government or business saving). Figure 3 says that New Zealand households have been living beyond their means (their saving rate has been negative) for most of the last fifteen years.[2]

**Figure 2: National saving rates**




[1] See the Group's final report at http://www.treasury.govt.nz/publications/reviews-consultation/savingsworkinggroup/finalreport/.
[2] Saving rates are on a net basis. Note that due to lack of comparable data figures 2 and 3 aren't based on the full set of OECD economies.

**Figure 3: Household saving rates**




## Can it really be that bad?

There has in fact been heated debate around how to measure saving, and whether the official numbers in figures 2 and 3, which are based on national accounts data for disposable income and consumption expenditure, are a fair reflection of reality.

Some of this debate has been about what how we should measure saving in the first place. For example, should we count spending on things like education, health and long-lasting durable goods (cars and furniture, say) as consumption (as the official estimates do) or as investment? Should we adjust interest payments for inflation (as the official measures don't)? We won't go into that aspect of the debate here, but it can make a big difference to the measured level of saving and how it changes over time.[3]

At an even more basic level, the key objection – and one that seems fair to us – has been that New Zealand's official data underestimate income, while measuring consumption more accurately. The result is that saving is understated. For example, research by the RBNZ has tentatively suggested that aligning the way we measure our GDP with methods used in Australia could add around 10% to measured income.[4] This wouldn't move us up very far in the OECD income league tables, but it would imply a roughly 10 percentage point increase in the saving rate, closing the saving gap with Australia and placing us close to the average in figure 2. When it comes to household saving, there are additional measurement gaps: for example, New Zealand's household income data don't fully account for some income sources which have probably become more important over time, such as earnings from overseas pension funds and other overseas assets. This may have contributed to the apparent decline in measured household saving over the 2000s, as well as the low overall level.[5]

## Different measures, different outcomes

At the national level, we have no way of knowing what the 'true' saving rate might be: for now at least, the official measure, and an uneasy feeling that it's too low, is all we have. For household saving, a number of attempts have been made to cross-check the official measure against alternatives using different data sources. These include:

- Using household survey data instead of the official income and expenditure data. Since household surveys ask people for all their income sources, they should better account for overseas income.[6]
- A 'net wealth' approach, where saving is measured as the change in households' assets and liabilities.[7] To be comparable with the official measure, this measure needs to be appropriately adjusted for revaluation effects and other changes that don't reflect active saving decisions. For example, an increase in household wealth due to rising house prices shouldn't count as saving; and a decline in the number of houses due to the Canterbury earthquakes shouldn't count as dis-saving.
- An 'equity injection' approach, which essentially looks at the gap between households' investment in financial and non-financial assets and their borrowing.[8] The advantage of this approach is that it allows a mixture of stock and flow data to be used, depending on which seems the most reliable.

Just how different the resulting numbers can be is shown by Table 1 below. In the mid-2000s they range from significant dissaving (the official measure) to less dissaving (the 'equity injection' measure) to positive saving (the 'net wealth' measure). And the measures also disagree on the whether the household saving rate was rising or falling in the first half of last decade.

**Table 1: Alternative saving estimates**

| | Estimated saving rate, 2003-2005 | Change in saving rate 2000-2005 |
|---|---|---|
| Official measure | -7.7% | -7.1% |
| Survey-based measure[9] | 10% and rising for most of 1990s | |
| Net wealth measure | 15% | 10% |
| Equity injection measure | -5.6% | -13.1% |

Source: Stats NZ, Gibson and Scobie (2001), Scobie and Henderson (2009), Hodgetts et al. (2006)

## Different measures, different problems

Unfortunately, not all the alternative estimates in Table 1 have been constructed to be comparable with the official household saving measure, and all of them suffer from their own particular data quirks. That potentially matters a lot because all are the small residual between some very large numbers: income and expenditure, this year's wealth and last year's wealth, investment and borrowing. Hence small differences in the underlying

[3] Claus and Scobie (2002) explore some of these issues (http://www.treasury.govt.nz/publications/research-policy/wp/2002/02-02/). By their calculations, counting spending on health, education and consumer durables as investment (with appropriate assumptions for depreciation) could boost national saving rates by about 10%. Adjusting for inflation would make private saving rates in the 1970s and 1980s look more similar to those seen since the 1990s.
[4] See Bollard and Barrow (2012), http://www.rbnz.govt.nz/speeches/4683849.html.
[5] The official household income data also don't include the retained earnings of incorporated businesses (these are allocated to the business sector). This may have become an increasing issue in the 2000s, as more individuals set up companies for tax purposes. However, a lot of those companies were LAQCs designed to allow rental property owners to offset losses against their other income, so it's not clear that their exclusion has led to undercounting of household income.
[6] See, e.g. Gibson and Scobie (2001), http://www.treasury.govt.nz/publications/research-policy/wp/2001/01-18/.
[7] These estimates use official RBNZ data or household surveys - see, e.g. Scobie and Henderson (2009), http://www.treasury.govt.nz/publications/research-policy/wp/2009/09-04/.
[8] See Hodgetts et al. (2006), http://www.rbnz.govt.nz/research/workshops/14nov06/2895716.pdf.
[9] Estimates aren't available for the 2000s.

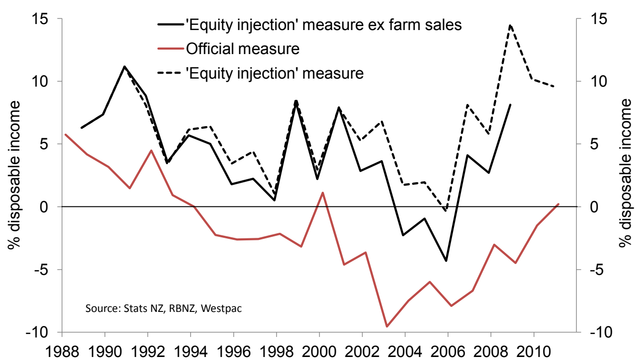
definitions or data can have a big impact on the end result. We won't go into all the messy details, but here are some that it's good to be aware of:

- Even when adjustments are made to ensure we're comparing like with like, it seems the survey data probably undercount spending and to that extent overestimate saving.[10]
- The 'net wealth' measures' big weakness is the difficulty of stripping out asset price changes. Generally these measures have only been adjusted for house price changes, and we wouldn't be surprised if they overstated saving in the 2000s when many assets (not just housing) were booming.
- Both the 'net wealth' and 'equity injection' measures use RBNZ data that doesn't include potentially important sources of household wealth, in particular privately owned farms and businesses (though attempts have been made to account for farm sales, which lops about 3 percentage points off saving in the mid-2000s).[11] Survey-based net wealth measures are also patchy, notably when it comes to family trusts, family businesses and possibly superannuation schemes.[12]

## Best of the bunch

On balance, the 'equity injection' approach seems to us to be most competitive of these alternative measures: it goes to the greatest lengths to be comparable with the official measure, and to avoid some of the data problems of the other approaches. In particular, it gets around some of the revaluation issues faced by the 'net wealth' approach by measuring investment in housing and some financial assets directly. (Unfortunately, though, it will become less useful in the next few years, as reinsurance flows rather than household saving boost quake related housing investment.[13])

**Figure 4: Two alternative saving measures – a closer look**




With that in mind, we've decided to update this measure (last estimated by the RBNZ in 2006) for the most recent data, and to use it as our preferred alternative in figure 1. For the technically minded, figure 4 shows our estimates in more detail.[14] In particular, it shows the importance of adjusting this measure for farm sales – it makes the difference between a positive and negative household saving rate in the mid-2000s. We didn't have access to the full range of data used by the original RBNZ authors and had to make some approximations, but we think their impact is relatively small.[15]

**Felix Delbrück,** Senior Economist

10 For a detailed discussion, see Bascand et al. (2006), http://www.rbnz.govt.nz/research/workshops/14nov06/2895712.pdf.
11 See Hodgetts et al. (2006), table 4.
12 Again, see Bascand et al. (2006).
13 This was kindly pointed out to me by Phil Briggs.
14 See Hodgetts et al. 2006, table 4, and Smith (2006), p 16, http://www.rbnz.govt.nz/research/workshops/14nov06/2895714.pdf.
15 In particular, we didn't have the data to replicate the RBNZ's estimates of land transfers. However, these transfers seem largely to have been from farms to households (via lifestyle block conversions) and they mostly net out once we adjust the saving measure for farm sales. We've extrapolated from the RBNZ's 2006 estimates.

## Westpac Economics Team Contact Details


**Dominick Stephens,** Chief Economist | Ph: (64-9) 336 5671 | dominick_stephens@westpac.co.nz
**Michael Gordon,** Senior Economist | Ph: (64-9) 336 5670 | michael_gordon@westpac.co.nz
**Felix Delbrück,** Senior Economist | Ph: (64-9) 336 5668 | felix_delbruck@westpac.co.nz
**Anne Boniface,** Senior Economist | Ph: (64-9) 336 5669 | anne_boniface@westpac.co.nz