



## Article 2

# Beyond GDP

## Measuring New Zealand's wellbeing progress

Over the past years, we have witnessed a renewed effort to go beyond Gross Domestic Product (GDP) in measuring wellbeing and social progress. More recently, the New Zealand Government has made a commitment to do the same.

There are three evidence-informed foundations for this effort and commitment. First, people care about their wellbeing as well as their income. Second, wellbeing depends on a range of factors, only some of which can be purchased.

Third, public policy that is exclusively or primarily focused on increasing income (or GDP in aggregate) may actually end up decreasing wellbeing now, or in the future. In this article, we discuss why there has been an increased focus on wellbeing as a measure of progress and as an objective of public policy. ➤

By **Joey Au & Girol Karacaoglu**



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We also outline the various approaches to defining and measuring wellbeing, and sketch the current state of wellbeing measurement in New Zealand. Finally, we create a new wellbeing index for New Zealand based on methodology from the Netherlands and discuss the policy implications of this work.<sup>1</sup> Here we make the fundamental point that there is a critical difference between the best way to measure wellbeing and the main influences on it, and what factors to focus on and how, in order to improve wellbeing.

**Background and context**

Dissatisfaction with income as a measure of wellbeing has a long history.<sup>2</sup> The move to expand measures of wellbeing beyond income was given a significant push forward with the publication of the Stiglitz-Sen-Fitoussi Commission report in 2010.<sup>3</sup>

In principle, there could be wide variations in what matters for individual wellbeing but many studies (covering a large variety of countries and cultures across time) have repeatedly identified the same general list of main influences on wellbeing. In other words, based primarily on robust, survey-based, empirical work, we have a broad sense of the common elements of what individuals value.<sup>4</sup>

To be consistent we use the OECD terminology and refer to these common ingredients as the “domains of wellbeing”. These are represented by the components of the OECD’s Better Life Index (BLI).<sup>5</sup>

## Dissatisfaction with income as a measure of wellbeing has a long history

The main components of the BLI (see Figure 1) for individual wellbeing include quality of life and material conditions. These components represent the factors that people value and have reason to value.<sup>6</sup>

Similarly, the Social Report produced by the New Zealand Ministry of Social Development identifies ten domains of wellbeing: health, knowledge and skills, paid work, economic standard of living, civil and political rights, cultural identity, leisure and recreation, safety, social connectedness, and life satisfaction.<sup>7</sup> Statistics NZ also refers to three domains in its framework for measuring sustainable development: environmental responsibility, economic efficiency and social cohesion.<sup>8</sup>

Under the BLI, the ultimate source of sustainable wellbeing over time relates to the stocks of capital assets, broadly defined, that yield income and other sources of wellbeing now and into the future.<sup>9</sup> These assets (see Figure 1) include economic (or built) capital, human capital, natural capital, and social capital.

There is a related fundamental point. Some of the measures of social progress (i.e. contributors to wider wellbeing) such as “basic human needs” (including nutrition, basic medical care, and shelter) are positively and sustainably correlated with income, whereas others such as “opportunity” (including personal rights, tolerance, and inclusion) are less so.<sup>10</sup>

**Figure 1: The OECD wellbeing framework**



Source: OECD, 2013

### Other approaches to measuring wellbeing

What we have outlined previously is not the only approach to measuring wellbeing.

In measuring whether a country is making progress, some use a dashboard approach, presenting multiple indicators and measures, while others construct aggregate or composite indices.<sup>11</sup>

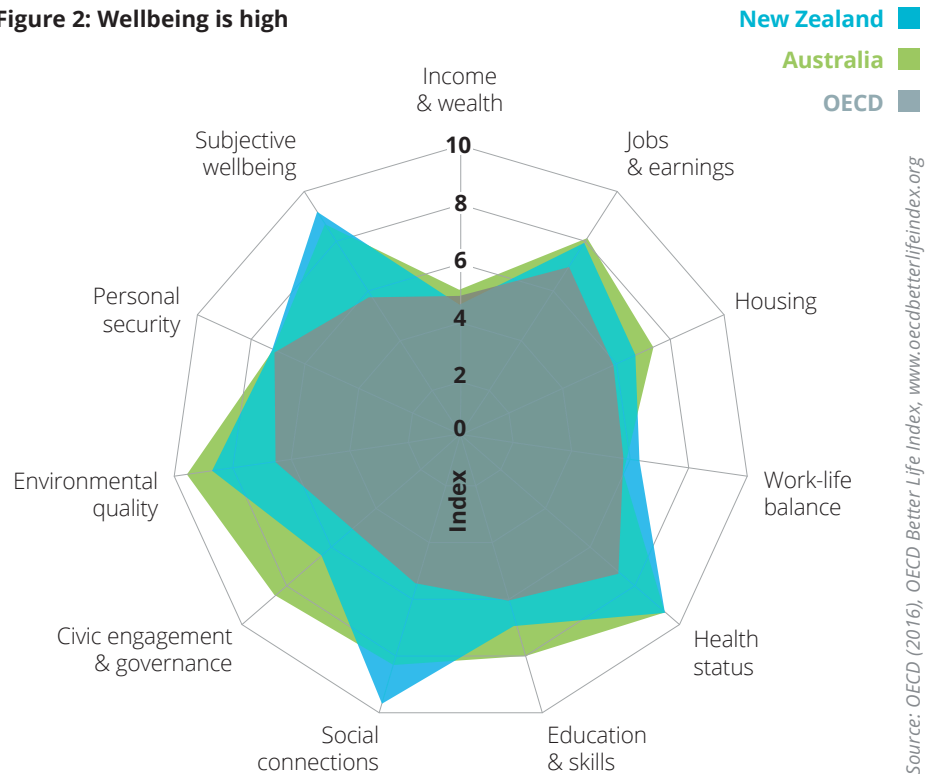
Most prominent among the latter are the BLI<sup>12,13</sup> and the UNDP's Human Development Index.<sup>14</sup> The World Bank uses Genuine Savings,<sup>15</sup> (also known as Adjusted Net Savings), which emphasises sustainability through measuring changes to capital stocks. Some for-profit and many non-governmental organisations have developed their own measures, including the Legatum Institute's Prosperity Index<sup>16</sup> and the New Economics Foundation's Happy Planet Index.<sup>17</sup>

In addition, a Genuine Progress Indicator has been proposed since the late 1980s as an improved measure. It includes factors like income inequality, contributions from the informal economy and households, deductions for unwanted expenses and the depletion of resources.<sup>18</sup>

The World Bank has experimented with a number of total wealth indicators, including Adjusted Net Savings. It measures an economy's long-term sustainability by calculating how much of national product is not immediately consumed, investment in education, and the depletion of natural resources.<sup>19</sup>

The UN launched an Inclusive Wealth Index (IWI) focusing on stocks rather than flows, as GDP does. The IWI measures sustainable economic development to gauge the difference between produced capital (what the human economy produces through industrial activities) and human and natural capital.

Figure 2: Wellbeing is high



These measures, while useful, still use the same linear, input-output approach of current national accounts methods. Some argue that, "If we are to succeed at moving beyond the current model of growth at all costs to embrace the idea of a wellbeing economy, we need a different approach to data collection and modelling that is adaptable, evolutionary, and integrated."<sup>20</sup>

An alternative approach focuses directly on measuring outcomes, in the form of subjective wellbeing. The basic idea is, having attempted to improve objective conditions that drive wellbeing, public policy makers would test whether this is actually increasing wellbeing through carefully structured surveys.<sup>21</sup>

#### How is New Zealand doing?

Using a wellbeing lens, focusing on outcomes over the past decade, New Zealand has done relatively well - whether we base this assessment on New Zealand's performance relative to other countries or relative to its own history.

As the 2017 OECD Report on New Zealand summarises:

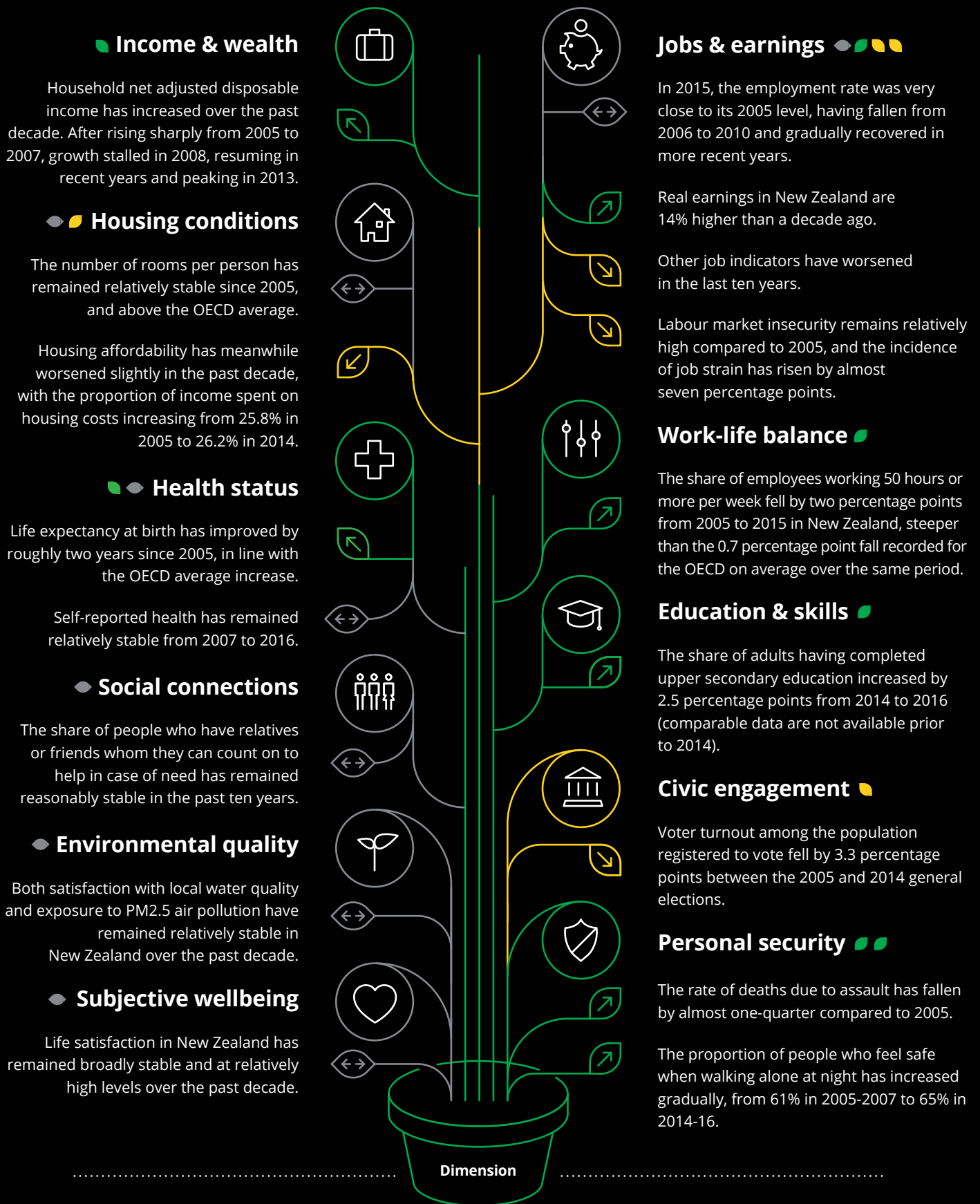
"New Zealanders enjoy high living standards, with all components of the Better Life Index stronger than the OECD average, except for household disposable income and wealth... New Zealand substantially outperforms most other OECD countries on social connections, health status and overall environmental quality. High living standards are also reflected in a superior subjective measure of wellbeing. They are underpinned by robust institutions, good governance, generally best-practice policy settings, a stable macro-economy and a high-quality education system. New Zealand also performs well on gender inclusiveness, with one of the smallest gender wage gaps in the OECD."<sup>22</sup>

Figure 2 shows New Zealand's performance, compared with both Australia and the OECD average, on the BLI. We can also assess New Zealand's performance relative to its own history by considering recent trends. In Figure 3, some of the components of wellbeing have improved in New Zealand over the past ten years, while others have deteriorated.

Figure 3

# Change in New Zealand's average wellbeing

over the past 10 years



**Notes on change indicators**

For each indicator in every dimension: refers to an **improvement**; indicates little or **no change**; and signals **deterioration**.

This is based on a comparison of the starting year (2005 in most cases) and the latest available year (usually 2015 or 2016).

Source: OECD, 2013

Although this multi-dimensional view of the main factors affecting wellbeing is useful in telling us which factors have improved, it doesn't tell us whether New Zealand's overall wellbeing has actually improved. For example, to say that overall wellbeing has improved we would need to be certain that the contributions of the increases in income, personal security, and other areas more than offset the decline in wellbeing associated with decreases in civic engagement and housing conditions.

With information about what matters most to New Zealanders, we can construct an "average" wellbeing index to measure and track New Zealand's overall wellbeing over time. We do that below by following a methodology developed for the Netherlands, again using OECD data.<sup>23</sup>

**A wellbeing index for New Zealand - data and methodology**

The dimensions of wellbeing we have selected are from the OECD's BLI. These have the advantage of being empirically supported and internationally comparable. In addition, the BLI initiative offers the opportunity to use weightings of the BLI domains, based on preferences, to create an aggregate index for measuring a country's progress in terms of overall wellbeing.<sup>24</sup>

For New Zealand, these dimensions are shown below. The figures in parentheses are the weights from the BLI website (accessed on 1 December 2017):

-  **1** | Income & wealth **(0.083)**
-  **2** | Jobs & earnings **(0.085)**
-  **3** | Housing **(0.087)**
-  **3** | Work & life balance **(0.095)**
-  **5** | Health status **(0.101)**
-  **6** | Education & skills **(0.097)**
-  **7** | Social connections **(0.080)**
-  **8** | Civic engagement & governance **(0.066)**
-  **9** | Environmental quality **(0.094)**
-  **10** | Personal security **(0.089)**
-  **11** | Subjective wellbeing **(0.107)**

Weighting is a controversial topic in the construction of composite indicators. Our choice is based on reasonableness and convenience, but other methods are possible. Further detail about our method is available at [www.deloitte.com/nz/stateofthestate](http://www.deloitte.com/nz/stateofthestate).

**A wellbeing index for New Zealand - results**

Figure 4 presents one of the main findings of this exercise. It shows that over the past ten years or so (using the measures we have developed) there is not much difference between real GDP per head of population and a broader wellbeing measure when assessing New Zealand's progress.

We show the contributors to the movements of the wellbeing index over those ten years, on a year-by-year basis. In Figures 5 and 6 (see next page) we show the cumulative contributions of each BLI domain to overall wellbeing.

**Figure 4: Income vs wellbeing**

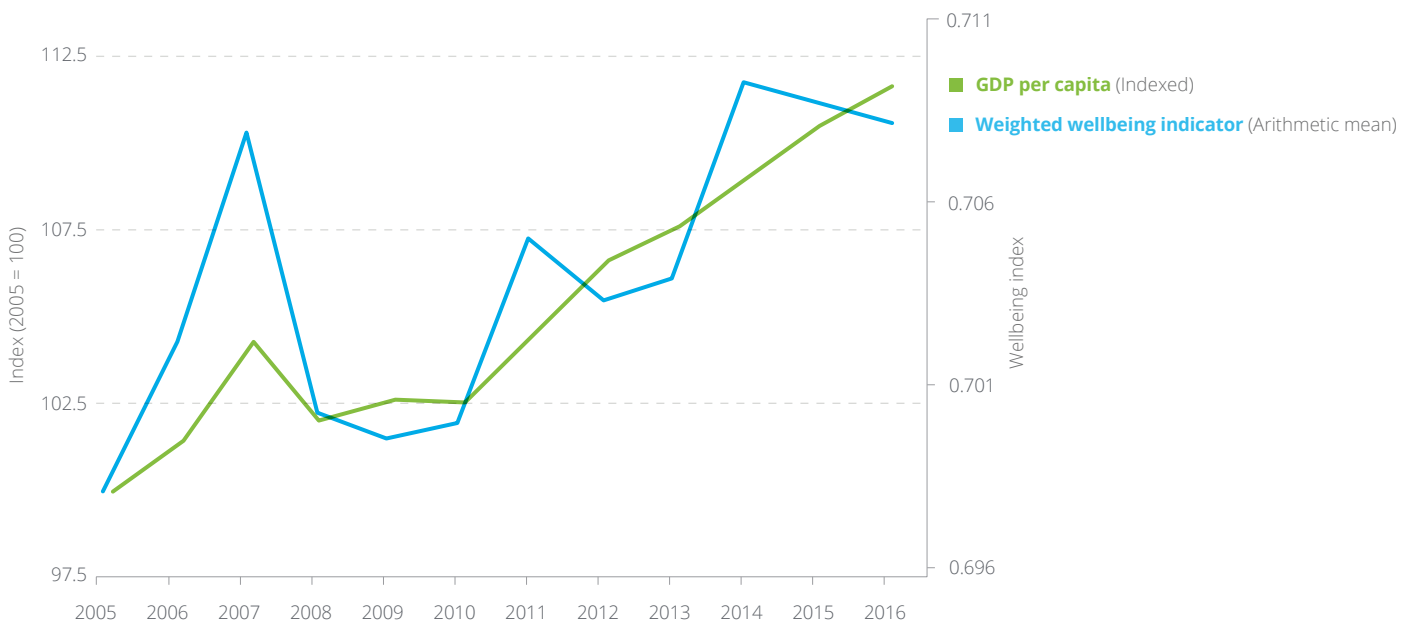


Figure 5: Year-on-year contributions to wellbeing

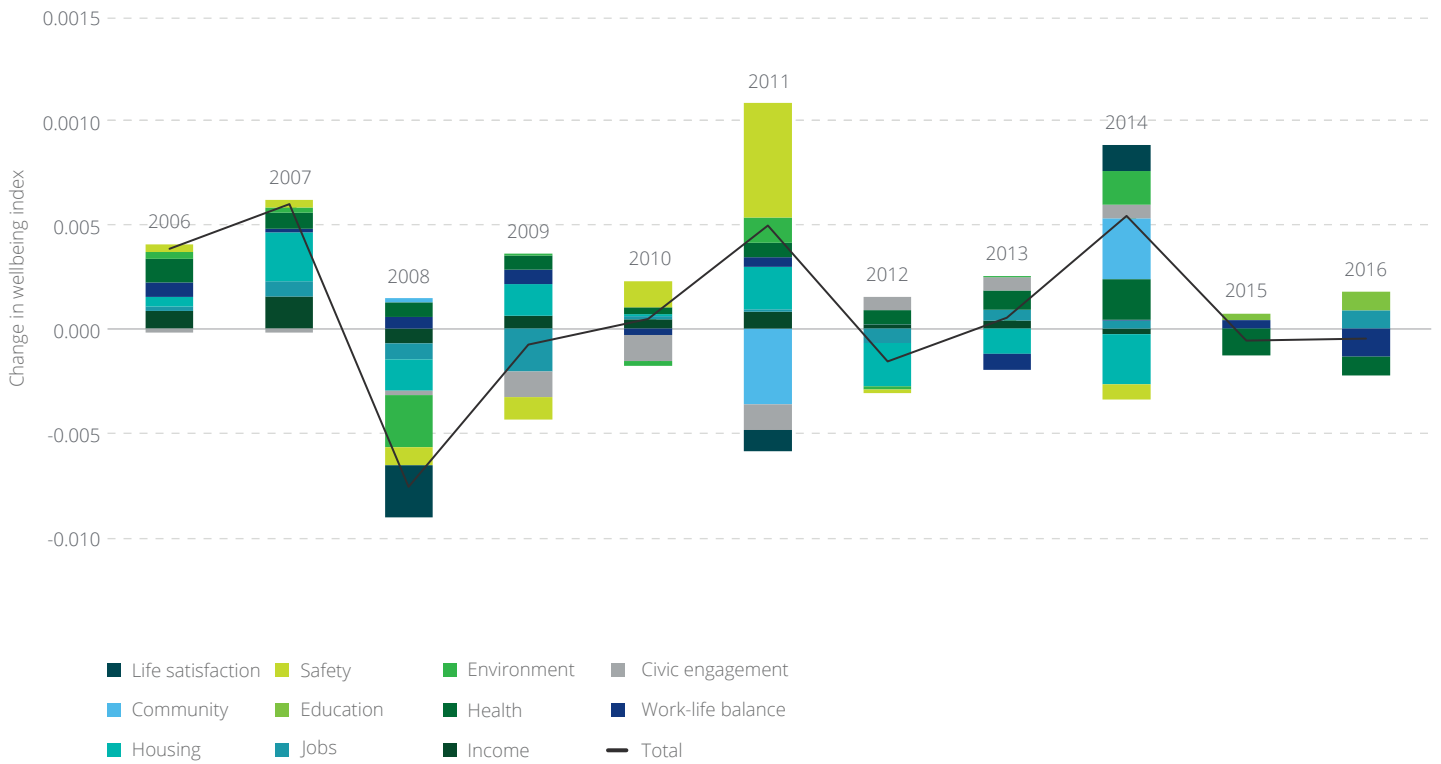
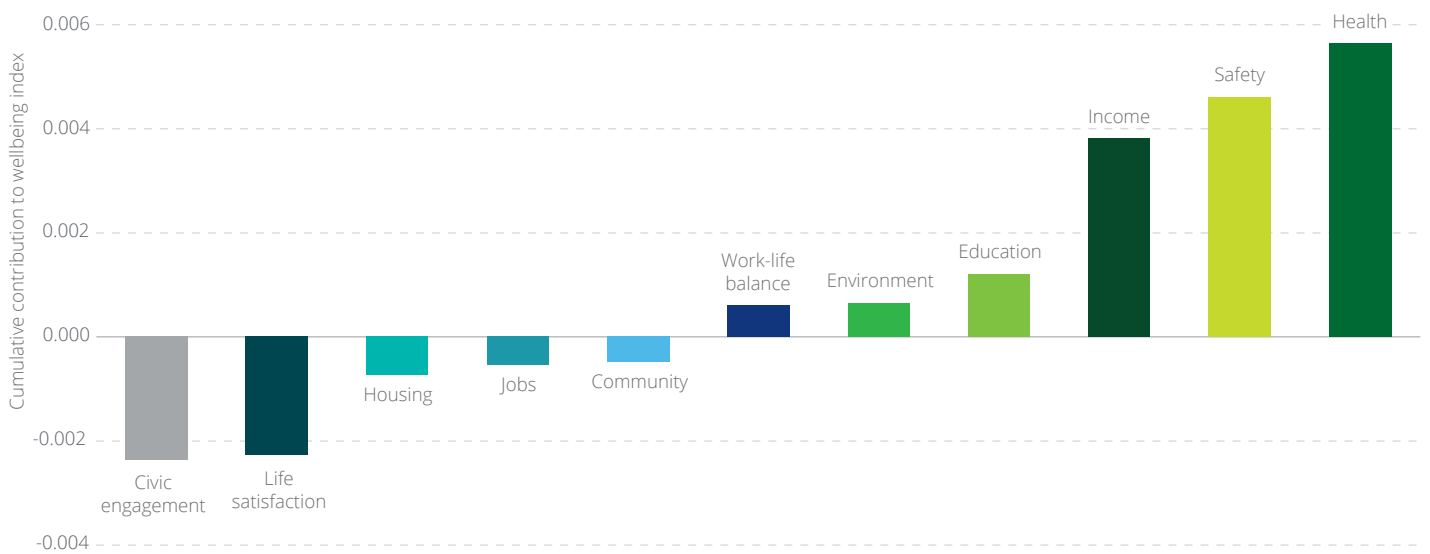


Figure 6: Cumulative contributions to wellbeing



### Discussion – so what is the benefit?

We associate wellbeing with people's ability to live the lives they value. If the purpose of public policy is to improve the wellbeing of individuals and communities, as we believe it should be, then measuring the progress of wellbeing is of public interest.

This measurement can be done at various levels. Two options that we have shed some light on in this paper are to first ask people how they are feeling about their own lives (see subjective wellbeing in Figure 3), and second, to measure whether the key ingredients or domains of wellbeing are improving over time. In other words, we have reported progress over the past ten years on both subjective wellbeing (but only at a very aggregate level in Figure 3) and on the main domains of wellbeing. As much as it can, the data also allows us to disentangle movements in the main domains of wellbeing so that we can get a sense of the detail behind the overall measure.

All this can help inform, and hopefully also improve, public policy towards improving wellbeing on a sustainable basis. With the usual cautions about the completeness and quality of the data, the evidence presented suggests:

- Over the past ten years or so, it is difficult to differentiate between income and wellbeing as indicators of progress for New Zealand.
- The main positive contributors to overall wellbeing over the past ten years are due to improvements in safety, income and health.

These explorations also provide guidance on the type of data we need to collect to inform public policy on wellbeing, as well as identifying the main gaps in the existing data.

The data used in this paper is deliberately sourced from the OECD, both for convenience and to help with international comparability. The price we pay for this pragmatism is the compromise we face with the quality of the data used.

## If the purpose of public policy is to improve wellbeing, as we believe it should be, then measuring the progress of wellbeing is of public interest

Any serious extension of this work would almost certainly require moving away from OECD data and starting to build a wellbeing database for New Zealand, using the very best data we can generate. This is a project that is already underway at Statistics New Zealand. As that data becomes publicly available, we will all be able to improve our measures of wellbeing.

### Conclusions and next steps

Although our analysis and results may help inform public policy, they do not tell us how to design or implement public policy.

For example, the finding that the quantity and quality of housing is a negative influence on wellbeing does not tell us how to "solve the housing problem". This is a separate matter, subject to ongoing debate.

While we will not contribute to the debate in this article, it is sufficient to say that the heart of it concerns the role of government. Is it to equip people to pursue the lives they have reason to value (a "wellbeing state") or is it to directly provide people with what matters for their wellbeing (a "welfare state")? Where does "agency" (or accountability and responsibility) lie – with the individuals concerned or with the government, or a mix of the two?

The current Government has clearly signalled that it wants to frame, design, and implement public policy with an objective of increasing overall wellbeing, not just income, on a sustained basis. If academics, businesses and public servants do not lift their games and provide all the support we can to help the Government achieve this vision, we will have missed a unique opportunity and failed.

### Our contributions can have at least four dimensions or objectives

First, to improve the measures and contributors (domains of wellbeing, and the ultimate sources of it – human, natural, social & cultural, and economic capitals). This article is a contribution to part of this first objective. As stated, while for pragmatic reasons we have used the OECD data, any extensions of this work will require access to better quality New Zealand data for each of the domains of wellbeing.

Second, to model and analyse how the various domains of wellbeing, and their ultimate sources, interact with and complement each other. This would be critical information for guiding public sector investments and decision-making.

Third, to continue exploring quantitatively, the main influences on wellbeing, including cultural, historical, and regional (or geographic) dimensions, and what matters most to New Zealanders.

Fourth, given all of the above, explore various ways of designing and implementing sustainable wellbeing-enhancing policies.

This sets the key dimensions of the wellbeing and public policy agenda, and what sets it apart from the last few years' exploration of social investment policies. Our third State of the State article reflects on social investment and how wellbeing strikes a different path.

## End notes

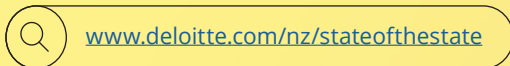
1. Rijpma, et al pp 32-34
2. See, for example, Coyle (2014), Coyle (2015), Kubiszewski et al (2013), Nordhaus (1972), Van den Bergh (2009), Saunders and Dalziel (2017), Waring and Steinem (1988), Fleurbaey and Blanchet (2013), and Boarini and D'Ercole (2013).
3. See Stiglitz et al (2010).
4. See Boarini et al (2014), Smith (2015).
5. See Durand (2015), Van Zanden et al (2014)], Watson et al. (2016).
6. See Sen (2009), Alkire (2016).
7. See MSD (2016).
8. Statistics New Zealand (2009). Statistics New Zealand's Framework for Measuring Sustainable Development. Wellington: Statistics New Zealand
9. Arrow, Kenneth J; Dasgupta, Partha; Goulder, Lawrence H; Mumford, Kevin J; Oleson, Kirsten (2012). "Sustainability and the Measurement of Wealth," *Environment and Development Economics*; Vol 17, pp. 317-353.
10. See the work associated with the Social Progress Index maintained by the Social Progress Imperative [Social Progress Imperative (2017), Porter et al. (2016)].
11. UN (United Nations) (2017). Sustainable Development Goals Report. United Nations Statistics Division.
12. OECD (2017). *How's Life? – Measuring Well-being*. OECD Publications, November.
13. OECD (2015). *How's Life? – Measuring Well-being*. OECD Publications.
14. UNDP (United Nations Development Programme) (1999). *Human Development Report: Background Papers*. Human Development Report Office.
15. World Bank (2013). *The Little Green Data Book*. World Bank (World Development Indicators).
16. Legatum Institute (2016). *Legatum Prosperity Index*. Legatum Institute.
17. NEF (New Economics Foundation) (2016). *Happy Planet Index*. New Economics Foundation.
18. Kubiszewski, Ida; Costanza, Robert; Franco, Carol; Lawn, Philip; Talberth, John; Jackson, Tim; Aylmer, Camille (2013). "Beyond GDP: Measuring and Achieving Global Genuine Progress," *Ecological Economics*; Vol. 93, pp. 57-68.
19. Qasim, Mubashir; Oxley, Les; McLaughlin, Eoin (2018). "Genuine Savings as a Test of New Zealand Weak Sustainability," *University of St. Andrews Discussion Papers in Environment and Development Economics*; Paper 2018-01.
20. Costanza, Robert; de Groot, Rudolf; Braat, Leon; Kubiszewski, Ida; Fioramonti, Lorenzo; Sutton, Paul; Farber, Steve; Grasso, Monica (2017). "Twenty Years of Ecosystem Services: How far have we come and how far do we still need to go?" *Ecosystem Services*; Vol. 28, pp. 1-16.
21. Adler, Matthew D and Fleurbaey, Marc (eds.) (2016). *The Oxford Handbook of Well-Being and Public Policy*. Oxford.
22. OECD (2017). *Economic Survey of New Zealand*. OECD Publications.
23. Rijpma, Auke; Moatsos, Michail; Badir, Martijn; Stegeman, Hans (2017). "Netherlands beyond GDP: A Wellbeing Index," *MPRA Paper*, No. 78934.
24. We make use of the preferences expressed by individuals visiting the BLI website, per Boarini, Romina and D'Ercole, Marco M (2013). "Going Beyond GDP: An OECD Perspective," *Fiscal Studies*; Vol. 34(3), pp. 289-314.



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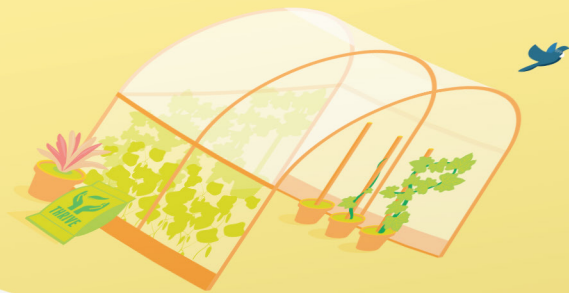
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Article 3

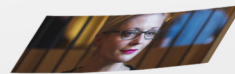
### From the ground up Embedding social investment principles for the future

In 2016 Deloitte explored the concept of social investment and the opportunities and challenges it presented to delivering social services in New Zealand

We defined social investment as government activity undertaken on the basis of a return-on-investment justification. Data is used to quantify a social problem, including the long-term costs to individuals and government. Agencies seek funding for interventions on the basis of the likelihood and extent to which they can reduce future costs to government by improving social outcomes. Finally, measurement and reporting is undertaken to check how successful they

were in achieving both the cost reduction and improvement in life outcomes. Measurement also informs a better understanding of "what works" which influences future investment decision. Using Treasury's five principles for successful social investment, we interviewed around 20 policy makers, academics, politicians and peak body leaders to understand the current state of strengths and weaknesses. We found:

By Jane Fraser Jones



*My career has been at the nexus of public policy and politics. I have developed, led and negotiated policy across a range of social and economic portfolios as the Prime Minister's senior adviser. I now assist clients with strategies, policies, analysis and decision-making driving New Zealand's public sector.*

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