

Quick guide to Our Future

It is important to keep an eye on where we are headed. In the Our Future section of the LSF Dashboard, we look at ways we can measure Future Wellbeing, using the four capitals as indicators. These capitals are: Natural, Human, Social and Financial & Physical.

Looking at Future Wellbeing

We use the four capitals as key indicators of wellbeing, both now and into the future. They do not constitute wellbeing on their own, but as indicators for how things are going.

Societal wellbeing at a point in time depends on the capital stocks we have, how well we use them, and any barriers that prevent us from doing so.

Strict economic growth is not the only marker of wellbeing – we want all growth to be sustainable and inclusive, as well as productive.

By using the LSF Dashboard to look at trends in the ways we have utilised our capitals, we can inform the way we use them in the future. Intergenerational wellbeing relies on the growth, distribution, and sustainability of the four capitals.

The capitals are interdependent and work together to support wellbeing.

Have a look below for some of the features of the four capitals.

Thinking about trade-offs

We need to consider trade-offs between the capitals, and recognise how we might prioritise one over the other. This is especially important when thinking about Natural Capital, which includes resources such as land, waterways, and the air.

We might clear native bush in order to build houses, which is a boost to our Financial and Physical Capital, at the cost of some of our Natural Capital.

On the other hand, as we utilise our Human and Social Capital, we may increase, rather than decrease, their future availability. For example, we all benefit from the trust that exists in a society with high Social Capital. As we benefit from this trust, we may increase it.

Similarly, if we use our skills while on the job, we usually increase our Human Capital rather than diminish it. Even so, when we decide to invest in a capital, it often comes at the cost of another capital.

Measuring trade-offs between the four capitals is something we hope to include in future versions of the LSF Dashboard.



Natural Capital



Natural Capital includes all aspects of the natural environment needed to support life and human activity. It includes both individual assets (minerals, soils, trees) and the functioning of broader ecosystems – interactions among different environmental assets, as seen in forests, soil, aquatic environments and the atmosphere.

The factors that affect our use of Natural Capital can vary widely. Electricity generated by hydro-power increases the productivity of resources. Good walking tracks improve accessibility for enjoying our native forests.

We invest in and benefit from international mechanisms to address environmental and natural resource challenges on issues such as climate change and over-fishing.

- Not tracked against the OECD



Human Capital



Human Capital refers to the skill, knowledge, mental and physical health of individuals within our society.

People build their knowledge and skills through training and their health through healthy habits and the use of health services.

However, it is important to recognise that there can be structural and societal barriers preventing people from acquiring as much Human Capital as they otherwise might. We need to consider the distribution and use of Human Capital with respect to ethnicity, socio-economic-status, gender and age.

Immigration and emigration also affect our stock of Human Capital, as international connections increase our total stock of human capital.

- Tracked against the OECD



Social Capital



Social Capital is the social connections, attitudes, norms, and formal rules or institutions that contribute to societal wellbeing by promoting the resolution of collective action problems among people and groups in society.

Different elements of social capital interact and can reinforce each other. Pro-social norms encourage social connections. Government institutions play an important role in supporting the overarching social norms of fairness, tolerance of diversity and respectfulness.

Social Capital is a well-evidenced predictor of economic performance, democratic functioning, public safety, educational outcomes, labour market outcomes, and individual health and wellbeing.

- 'Perceived Corruption' is tracked against the OECD



Financial and Physical Capital



New Zealand's physical, intangible, and financial assets have a direct role in supporting incomes and material living conditions. We accumulate Financial and Physical Capital by investing our wealth with the expectation of increased returns in the future.

Physical assets include factories, machines and equipment. Intangibles include knowledge-based capital, while financial assets include cash, bonds and shares. The Government's own physical assets, such as schools, roads, and hospitals, deliver public services that contribute to our overall wellbeing.

We increase our Financial and Physical Capital through global institutions and trade agreements, linking our wellbeing to our major trading partners and the global economy as a whole.

- 'Household Net Worth' is tracked against the OECD

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Two types of graph are presented Our Future: **Line graphs** and **Box-and-Whisker plots**. Box-and-whisker plots are used when we have OECD data to use as a comparison; Line graphs are used when we only have a time-series of New Zealand data.

Here we're looking at **Crown net worth as a percentage of GDP**. We have data spanning from 1997 to 2017, collected every year. The overall trend for the data appears to be upward, despite a large increase and subsequent decrease from the period 2003-2012.

Line Graphs

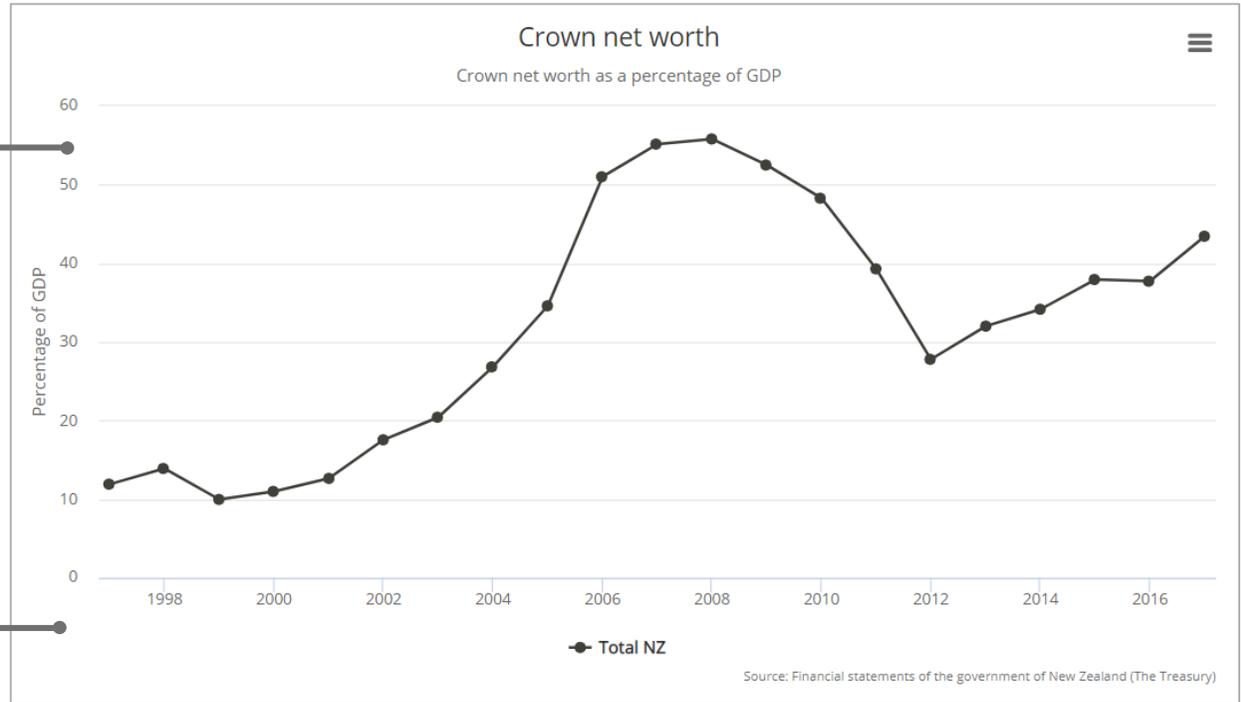
Each dot on the line graph represents a data point, and each data point measures the same thing at a different point in time. The year that each data point was collected is recorded on the horizontal axis (the line at the bottom), while the vertical axis (the numbers on the left side) records the values of the data points. Straight lines connect each consecutive data point to show the trend over time.

Data points in a line graph are arranged left-to-right, oldest-to-newest. It's important to remember that data may or may not be included for every year, but we still lay out the graph with the same size gap between each length of time. This ensures that we can trust the reliability of the overall shape of the graph.

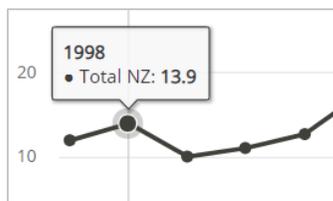
When looking at the trend, be aware of the scale of the vertical axis (particularly if there are only two or three data points). A small change in values can look steep if the scale only covers a small range.

The importance of consistent data

The more data we have, the better our inferences about where trends are headed in the future. Consider what the graph might have looked like in 2007. We might have inferred a continued accelerated increase in Crown net worth as a percentage of GDP, when in reality, this period was followed by a sharp decline. Because we can zoom out twenty years instead of ten, we can form more reliable ideas about overall trends.



Example: Physical and Financial Capital: Crown net worth



Hover over any data point to see the numerical value for that data point.

Coming back to our Four Capitals

Crown net worth as a percentage of GDP can be found in the Financial and Physical Capital section of Our Future. With the four capitals, it is important to consider what each graph is really telling us, and making value judgements can be difficult.

It is easy enough to say that we want Crown net worth to rise. This occurs through savings and investment for the future. But there's a hidden cost to too much investment. If Crown net worth is high, it suggests that we've been spending less on public and social services. Spending programmes can reduce inequality, reduce levels of unemployment, increase spending on conservation, or create more affordable housing and public works – gains in any of the four capitals. Where we really want Crown net worth to go in any given year must be carefully considered, and should take into account the general social and economic climate.

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Box-and-Whisker Plots

Box & Whisker plots are similar to Line graphs, but they give us a more nuanced view of the data. Each yellow dot represents a data point for New Zealand. Each grey box-and-whisker represents the OECD distribution for that year.

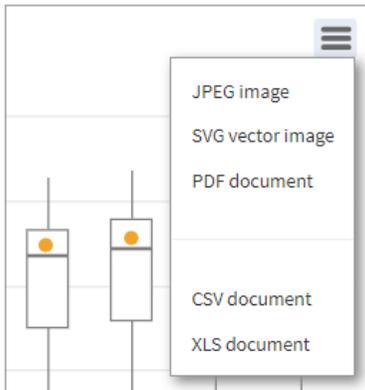
The highest point of each whisker is the highest value in any OECD country in that year. Similarly, the lowest point is the lowest value in any OECD country in that year.

The middle line in the middle of each box is the value of the middle-ranked OECD country in that year (the median). The top line in the box is the median for the highest half of the OECD (the upper quartile).

The bottom line in the box is the lower quartile: the median, or middle country, in the bottom half of the distribution.

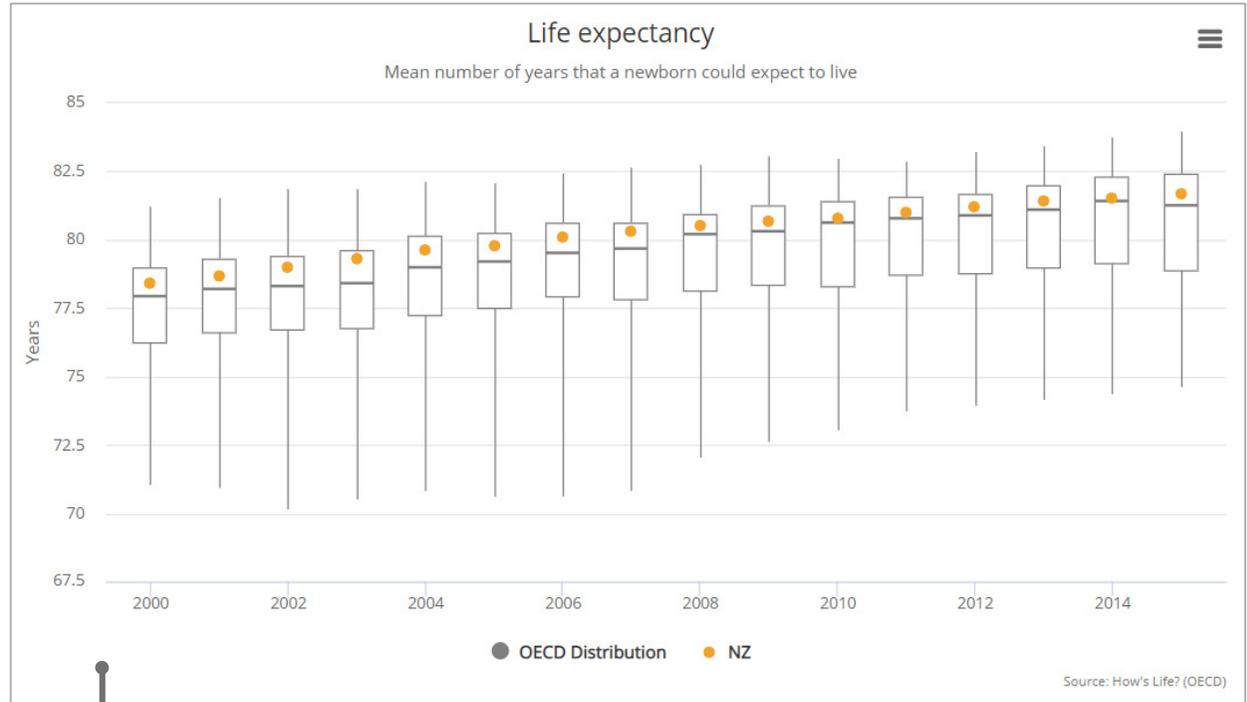
If the box is small, the countries in the middle have similar values and are bunched closely together. If the whiskers are long, the countries at the top or bottom of the distribution are very different to the countries in the middle, signalling greater depth of poverty or greater heights of advantage.

If the median is closer to the top of the box than the bottom, those above the median are more closely bunched together than those below.



You can export any graph through the menu in the top-right corner of that graph.

From the Home Page, you can also access and download an aggregated summary of the data used in the LSF Dashboard.



Example: Human Capital: Life expectancy

Making comparisons

Box & Whisker plots are great for measuring how we are doing relative to other countries in the Organisation for Economic Cooperation and Development (OECD). The OECD is an intergovernmental organisation comprised of 36 high-income, democratic countries, including New Zealand.

It's important to remember that the OECD is by no means representative of the entire world. However, we have a good basis for comparison with the OECD – it is a group of countries similar to us, who approach their aims in similar ways.

We can see from this graph that in 2017 in New Zealand, a newborn baby could expect to live 82 years. In the worst (reported) OECD country in 2017, they could expect to live 75 years, and in the best (reported) OECD country they could expect to live 84 years. New Zealand's life expectancy has been increasing since at least 2000, as has the upper quartile and median of the OECD.