

New Zealand's areas of (economic) strength: A literature review

SUMMARY

Sharon Pells, MBIE sharon.pells@mbie.govt.nz

March 2022

Highlights

This research:

- is motivated by heightened interest in a more focused approach to economic development policy

 any future decisions about potential areas of focus are likely to take into account New Zealand's economic strengths
- is based on a review of existing evidence and studies that compare New Zealand's areas of economic strength (and critical weaknesses) with those of other countries
- > takes a broad view of economic strengths, and in particular looks beyond the product/industry lens that is often used
- > finds that:
 - New Zealand's current and historic product strengths tend to be directly or indirectly related to agriculture, and also include some niche manufactures and tourism
 - New Zealand has performed consistently well in areas such as fundamental institutions, social capital/trust, health, education and employment rate
 - importantly, New Zealand has strengths in self-reported wellbeing
 - New Zealand's small population size and remoteness are frequently assessed as critical weaknesses
 - these weaknesses contribute to New Zealand's persistently poor productivity performance, and comparatively low levels of income and wealth
 - New Zealand also has weaknesses in some environmental and distributional outcomes
 - many of New Zealand's strengths and weaknesses have persisted over time
- > implies that:
 - there is much path dependence in New Zealand's economic strengths
 - concerted efforts would therefore be needed for any shift in the trajectory of strengths that might be required to prepare for the future.



Why did we do this study?

Examining New Zealand's areas of economic strength is a topic of enduring interest. Understanding our past and present strengths (and weaknesses) helps when considering future strengths, and hence what a future New Zealand economy could achieve for New Zealanders.

Currently, there is heightened attention on this topic due to growing interest in a more focused approach to economic development policy. This interest partly stems from the Productivity Commission's 2021 inquiry into frontier firms, which included a recommendation that innovation and other economic development effort should focus on a small number of areas of the economy rather than being thinly spread in what David Skilling terms "sub-therapeutic doses".

Any future decisions about potential areas of focus are likely to take into account New Zealand's existing economic strengths. This reflects that countries tend to build on existing strengths.

What is it about?

To examine New Zealand's areas of economic strength, MBIE conducted a literature review on the topic. As well as strengths, we considered critical weaknesses.

We defined areas of economic strength as 'specific economic or other dimensions in which a country has an advantage relative to other countries'. We deliberately took a broad view to consider strengths from alternative angles.

It is important to note that, despite the broad scope of the literature review, it only covers studies based on international comparisons. This comparative analysis provides a solid basis on which to examine strengths, because 'strength' is a relative concept. However, it means that the review largely ignores some important factors such as culture, in particular Māori and Pacific culture, and facets of the economy for which international comparisons are not relevant. This means it misses strengths that are unique to New Zealand.

What are New Zealand's main product strengths?

One method that is commonly used to examine a country's economic strengths is revealed comparative advantage (RCA). RCA is calculated as the ratio of a country's share of exports in a particular line of products, against the world's share of exports in the same product line. When a country has a RCA for a given product line greater than 1, the country is inferred to be a competitive producer and exporter of that product line.

New Zealand has persistent strengths in agriculture, some niche manufactures and tourism, based on a number of RCA studies that have previously been conducted.

MBIE's recent study is the most detailed, and (like other RCA studies) focused predominantly on goods rather than services. The study found that products with sustained comparative advantage across the period 1995-2018 tended to be directly or indirectly linked to agricultural production. This included a range of dairy, meat, forestry and fruit products, but also chemical derivatives such as casein, and more processed food commodities such as wine and infant formula. Even emerging product strengths, while being dispersed across broad product groupings, tended to be directly or indirectly related to agriculture, reflecting New Zealand's core strengths – and path dependence – in this area. Path dependence means that choices made on the basis of previous conditions can persist long after those conditions change; history matters.

Figure 1 shows products with a RCA greater than 1 in 2018. The highest RCAs were Mutton, bone-in frozen, Sheep carcasses, frozen and Unsweetened milk powder, >1.5% fat. Some products stood out as having both high RCAs and high export values, including Unsweetened milk powder, >1.5% fat, Coniferous logs, Butter, milk fats and oils, and Fruits, fresh not elsewhere specified.

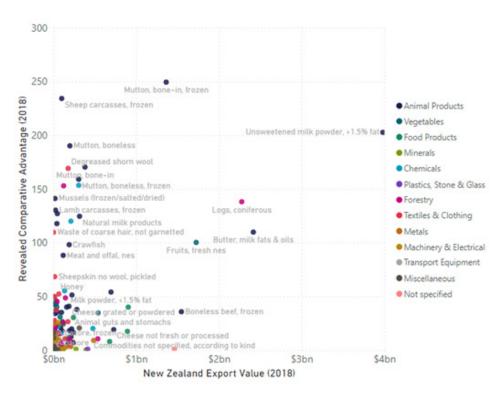


Figure 1: Products with comparative advantage (RCA>1) by value (2018)

Source: Baigent (forthcoming)

What are New Zealand's other strengths and weaknesses?

As well as studies about New Zealand's product strengths, we also considered other studies about New Zealand's comparative economic strengths. This reflects that modern economic development policy has tended to take a broader view than the industry focus traditionally used. One example of this broader view is Mariana Mazzucato's mission-based approach to innovation policy. Taking her inspiration from the 'moonshot' programmes which successfully coordinated public and private sectors on a large scale, Mazzucato called for the same level of boldness and experimentation to be applied to global challenges like climate change and poverty. This broad view of economic development policy implies the need for a broad view of economic strengths.

Importantly, this wide purview found that New Zealand has strengths in overall wellbeing. Selfreported wellbeing among New Zealanders is comparatively high, as are some other measures of wellbeing. This finding is striking in comparison with standard metrics like GDP per capita for which New Zealand fares less well than many other developed countries. Given that New Zealanders' wellbeing is the ultimate policy goal, it is important not to lose sight of the factors that likely contribute to this performance. Some of these factors are identified in Figure 2 below. Many strengths have persisted over time. Compared with other countries, New Zealand has performed consistently well in areas such as fundamental institutions, social capital/trust, health, education and employment rate.

New Zealand's small population size and remoteness are frequently assessed as critical weaknesses, although are probably better thought of as distinctive features. These features likely contribute to weak investment in infrastructure and research and development (R&D), skills mis-matches, and low trade intensity and product complexity. In turn, these weaknesses contribute to New Zealand's persistently poor productivity performance, and comparatively low levels of income and wealth.

New Zealand also has weaknesses in some environmental and distributional outcomes. These include comparatively high levels of greenhouse gas emissions per person, number of threatened species, income inequality, and housing affordability. These weaknesses seem important in the context of major societal challenges like climate change and inequality.

Figure 2 summarises the findings.

'Deep roots' factors Inputs and Outputs Outcomes Framework & determinants capabilities Subjective wellbeing Fundamental institutions Education and skills Social capital and trust Products directly or Wellbeing overall (esp New Zealand's Research impact overall indirectly related to compared to GDP) Climate conducive to current Research in agriculture & agriculture, niche Employment rate agriculture biological sciences strengths Health manufactures and tourism Natural environment and ICT infrastructure natural beauty Social connections Skills mis-matches Exports are mainly low complexity Income and wealth Investment in R&D, eg agriculture and tourism Income inequality New Zealand's Small population size especially business R&D Low trade intensity Housing affordability current Distance from major Some aspects of Collaboration between businesses Time off work centres weaknesses infrastructure eg roading, and research organisations GHG emissions per capita shipping connections Productivity Threatened species Persistent strengths in agriculture, Persistent strengths in Persistent strengths in Persistent strengths in niche manufactures and tourism subjective wellbeing. education and skills, and fundamental institutions, Persistent weaknesses in trade health, employment rate, Persistence agricultural research social capital and trust intensity, collaboration between and social connections Persistent weaknesses in skills over time Persistent weaknesses in businesses and research Persistent weaknesses in mis-matches, and investment size/distance organisations, time off work and in infrastructure and R&D and productivity (especially) income

Figure 2: Summary of New Zealand's comparative economic strengths and weaknesses

Source: Author, based on the studies covered in the literature review

What are the implications for future strengths?

This study essentially provides a reality check when thinking about possible future areas of economic strength. In particular, the findings highlight that there is much path dependence in New Zealand's economic strengths. New Zealand is still a largely biologically-based economy. Despite many calls for a more diverse economy, shifting New Zealand's exports away from traditional areas like agriculture and tourism has proven hard to do in practice.

However, the effects of global megatrends like climate change imply that such a shift might be needed. New Zealand has ambitious climate goals, and livestock and transport account for a large proportion of emissions. The threats (and opportunities) posed by climate change imply the need to develop new strengths in traditional areas like agriculture and tourism and in other areas.

Government plays a role in shaping New Zealand's capabilities and strengths – and in addressing critical weaknesses – to help prepare for the future. A shift towards strengths for a possible or preferred future might involve consideration of factors such as global megatrends that will shape the future, opportunities for New Zealand in global markets, Te Tiriti o Waitangi and other important commitments, and the type of economy New Zealanders want in the future. Given the powerful path dependence described above, achieving any desired shift in direction would require strong, focused and co-ordinated effort across the public and private sectors. Technology and innovation provide a possible way of breaking path dependence and supporting the transition. Strong governance and social processes would also be needed to support any shift.

Read the full version of the report <u>here</u> or call us on 04 901 1499.