Regional economic resilience in New Zealand: A labour market perspective

This document summarises our paper on regional economic resilience during the Global Financial Crisis and COVID-19 pandemic.

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Key insights

- **Resilience is an increasingly popular concept in a world where disruptions occur with greater frequency.**
- **While the concept of resilience is relatively established in the domains of business, ecology, engineering, and psychology, it is relatively new to, and continues to evolve in the economics literature.**
- **Our analysis of regional economic resilience in New Zealand highlights several potential sources of resilience, these include labour market flexibility, industry mix, as well as other regional characteristics.**
- **To respond to these short-and longer-term challenges, businesses, communities, and governments will need to take a longer-term view, and seek to build resilience against both short, sharp shocks, as well as more gradual forces for change.**
- **The OECD recommends placed-based policy making to support long-term regional economic resilience. Such policies should leverage the comparative advantages and unique characteristics of the regions. City and region deals are one potential tool that could facilitate resilience building infrastructure investment, but care should be taken to ensure equal access across the regions.**

What is economic resilience?

Resilience is a well-established concept in the domains of business, ecology, engineering, and psychology. In the field of economics, however, the concept is relatively new, and continues to rapidly develop. Common across all these domains, however, is the idea that resilience is desirable, and supports growth and/or minimises the risks of disturbances, or negative shocks. Economic resilience tends to include simply bouncing back from a shock (e.g., to a pre-shock level, or "equilibrium"), an equilibrium perspective. Alternatively, it also includes allowing for growth trajectories and rates to change following a shock (an evolutionary perspective). Consequently, there are a range of definitions of economic resilience in the literature.

For this paper we adopt a definition featured in the *Handbook on Regional Economic Resilience:*

> *The capacity of a regional or local economy to withstand or recover from market, competitive and environmental shocks to its developmental growth path, if necessary, by undergoing adaptive changes to its economic structures and its social and institutional arrangements, so as to maintain or restore its previous developmental path, or transit to a new sustainable path characterized by a more productive and equitable use of its physical, human and environmental resources.*

This definition captures three important characteristics of regional economic resilience:

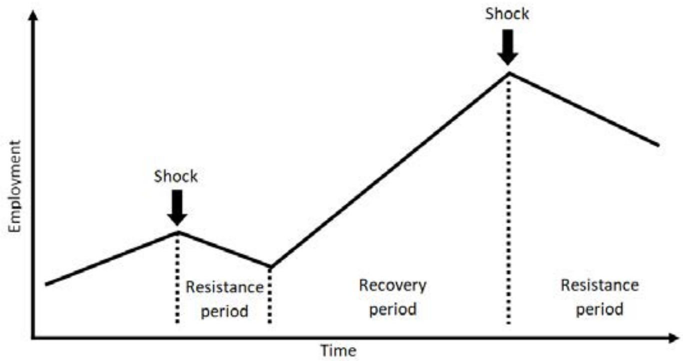
- Regions require the ability to withstand and recover from traditional, emerging, and yet unknown, idiosyncratic shocks;
- Resilience may involve both operational and structural adaptation; and
- Resilience isn't simply the ability to revert to a previous trend, as that developmental path may not have been sustainable or even desirable.

Measuring regional economic resilience

As with the definition of economic resilience, there are numerous approaches to measuring regional economic resilience in the literature. These include case studies, indices of resilience, statistical time series models, and causal structural models. For this paper we adopt a popular, descriptive approach that is relatively easy to implement. Specifically, we adopt the approach popularised by Martin, Sunley, Gardiner, & Tyler (2016), and measure the relative economic resilience of regions during and following recessions using regional employment as our outcome of interest. While regional output (GDP) could be utilised to measure economic resilience, we've focused on employment as workers generally bear the brunt of economic slowdowns due to layoffs or reduced hiring that can have both short-and long-term impacts on their careers, but also wellbeing. Further, regional output data has an annual frequency in New Zealand rendering it less suitable for this approach.

The measurement approach separates resilience into two distinct measures, resistance – the ability of a region to weather the impact of a recessionary period – and recoverability, i.e., how well a region recovers following the recession. Specifically, these measures capture the relative employment growth in the regions, compared to national employment growth over the same period (see Figures 2 and 3). Figure 1, below, highlights these two phases of resilience. We focus our analysis on the recessionary shocks of the Global Financial Crisis and COVID-19 pandemic.

Figure 1. Resistance and Recovery periods

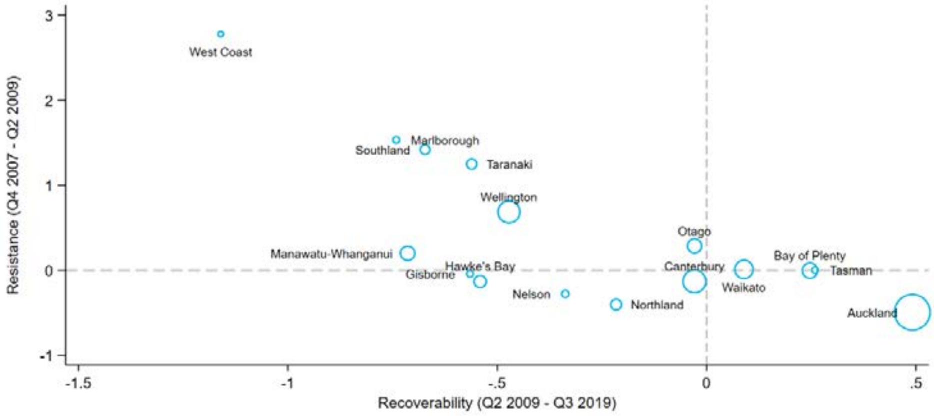


Regional economic resilience in New Zealand

Investigating the relative resilience of regions during the GFC and COVID-19 pandemic (see Figures 2, 3, and 4) we observe several patterns. Firstly, across the GFC and COVID-19 we see that no region was both resistant to the two shocks and had a relatively strong recovery (top right quadrants). On the other hand, we do observe several regions that are resistant to both shocks but have more mixed employment growth during the recovery period (e.g., Marlborough, West Coast, Manawatu-Whanganui, and Southland). Overall, we see that resistant regions tend to also be regions with large shares of activity in the agricultural sector.

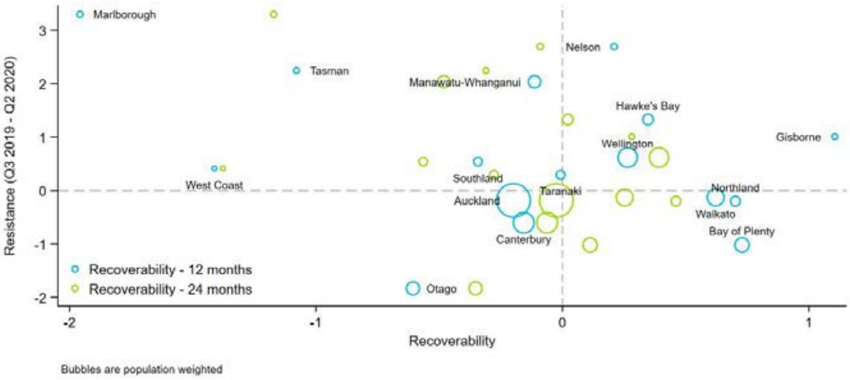
We also observe that only two regions (Bay of Plenty and Waikato) saw strong recoveries following both shocks, while Auckland (which tends to drive national growth as the country's gateway city, and largest centre of economic activity) saw relatively poor growth following the COVID-19 recession. However, this likely reflects the fact that Auckland experienced additional bouts of higher alert levels (and therefore reduced economic activity) due to the emergence of community cases of COVID-19 in August 2020 and February 2021. On the other hand, strong growth in the Bay of Plenty and Waikato highlights the benefits of proximity to Auckland, as well as offering urban areas with relatively high quality of business, and in the case of the Bay of Plenty, quality of life as well.

Figure 2. Resistance and recoverability (GFC)



Source: Authors' calculations using data from Stats NZ's IDI

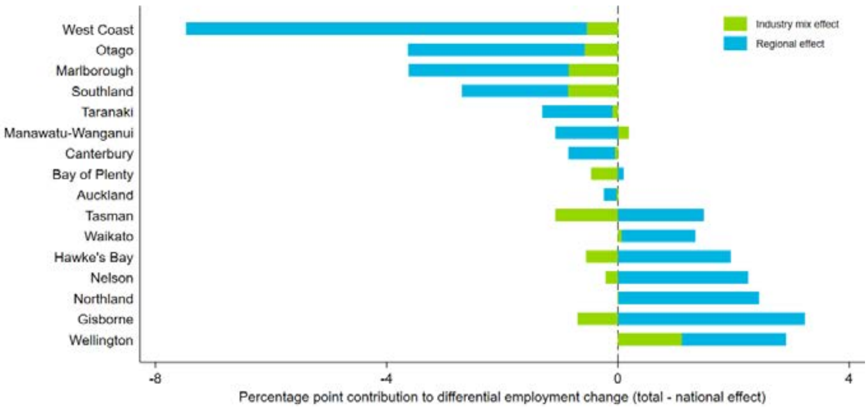
Figure 3. Resistance and recoverability (COVID-19)



Source: Authors' calculations using data from Stats NZ's IDI

Finally, we observe that much of the variation in regional employment growth across both the resistance and recovery periods of the COVID-19 pandemic is explained by regional characteristics (beyond industry mix). For example, we observe all but two South Island regions saw growth below that of the national average, with the West Coast, Otago, and Marlborough regions seeing particularly modest growth over these three years. This reflects a broader trend of labour market reallocation from South Island regions to the North Island regions over this period. Overall, our analysis suggests that regional economic resilience to short-term shocks is influenced not only by regional characteristics at the time, but also by longer-term trends, e.g., exposure to climate change, decline of historically important industries, or the development of new industries, or clusters of industries, that supports greater labour market flexibility and growth.

Figure 5. Decomposition of differential employment growth over resistance and recovery (COVID-19)



Source: Authors' calculations using data from Stats NZ's IDI

Conclusions

New Zealand is a relatively small, distant, and dispersed economy – including at the regional level – facing perennial as well as new challenges. The New Zealand Productivity Commission highlighted slow productivity growth, underinvestment in infrastructure, reconcentration of trade, and a changing geopolitical world as key challenges (New Zealand Productivity Commission, 2023). Compounding these challenges are increasingly frequent economic and environmental shocks.

Our analysis and review of the broader literature provides several key insights for government. Firstly, while short-term shocks such as recessions pose significant risk to the regions, longer-term, more gradual forces for change are an increasingly important, but historically neglected source of risk. Governments need to strike a balance between meeting short-term and longer-term objectives in response to these risks. Proactively coordinating and managing investments to build resilience across New Zealand's regions will be particularly important but will require longer-term thinking across the government system. Additionally, it may require making trade-offs across the regions, or between regional and national interests, but should be carefully considered to avoid undermining the government's longer-term objectives.

While traditional economic development tools are likely to remain important, developing regional resilience may require an increased use of more tailored solutions, i.e., place-based policy making as recommended by the OECD. This includes leveraging existing comparative advantages and the unique characteristics of the regions. City and region deals are a tool that central government could use to support regional economies striving to build resilience through infrastructure.

Read the full version of the report Regional economic resilience in New Zealand [PDF 2.1MB]