



How effective are resilience-focused policies?

This document summarises a literature review about the effectiveness of policies aimed at enhancing the resilience of economic systems.

Sharon Pells, MBIE

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Highlights

The literature review:

- is motivated by a growing interest in ‘resilience’ due to recent shocks like the COVID-19 pandemic, the Russian-Ukrainian war and Cyclone Gabrielle, in combination with long-term trends like climate change
- examines evidence about the effectiveness of policies that aim to enhance the resilience of economic systems to some shocks or trends to which New Zealand might be most exposed
- finds that:
 - relevant policies include ones that aim to identify and manage risks, prepare for a shock, recover and regain lost functionality following a shock, and adapt and transform in preparation for future shocks
 - evidence suggests that some policies *are* effective in enhancing the resilience of economic systems
 - evidence is patchy, often comprises case studies and depends on the specific definition of resilience used
 - key insights from relevant evidence include ensuring effective governance and institutional arrangements, avoiding crowding out private risk mitigation efforts, and balancing short- and long-term goals
 - priority areas for New Zealand include strengthening governance (including clarifying roles of central and local government), improving data and tools, preparing for, and shaping, structural change, and reducing inequities to help build resilience capacities.

Background

Recent events such as the COVID-19 pandemic, the Russian-Ukrainian war, and Cyclone Gabrielle, have disrupted supply chains, food security and other activities, and affected the lives and wellbeing of many New Zealanders. These events, in combination with concerns about long-term trends like climate change, have led to a heightened interest in ‘resilience’. As well as this recent interest, resilience has been a topic of enduring interest to a small, open economy like Aotearoa New Zealand, exposed to a range of disruptive shocks and trends.

The ability of economic systems to weather, and thrive in the aftermath of, such shocks and trends partly depends on the effectiveness of policy settings.

This document summarises a paper (‘the paper’) that synthesises international and New Zealand evidence about resilience-focused policies, based on the questions below. The focus is on policies aimed at enhancing the resilience of economic systems.¹ Despite this focus, the scope of the paper is broad, as many different policies are relevant to the resilience of economic systems, economic systems are exposed to non-economic as well as economic shocks, and economic systems are fundamentally connected to environmental, social and other systems. The paper therefore provides a general overview of relevant policies rather than detailed evidence about any specific policy.

The paper defines resilience per New Zealand’s 2019 National Disaster Resilience Strategy:

“The ability to anticipate and resist the effects of a disruptive event, minimise adverse impacts, respond effectively post-event, maintain or recover functionality, and adapt in a way that allows for learning and thriving”.

This wide definition of resilience includes long-term adaptation and learning which are crucial to a system’s ability to cope with unexpected disruptions and challenges in the future.

To what types of disruptive shocks or trends might New Zealand be most exposed?

Fundamentally, resilience is about dealing with ‘shocks’ (unexpected large-scale events), perturbations and other disturbances, and long-term trends. One way of framing these shocks, disturbances and trends is to consider New Zealand’s unique economic geography and other distinctive features, such as the country’s small population, isolation, active geology, and reliance on agriculture. This framing suggests that New Zealand may be particularly exposed to:

- global recessions and disruptions
- supply chain disruptions
- earthquakes, tsunamis, volcanic eruptions, and other natural disasters
- climate change – both the physical risks such as sea level rise, and the transition risks arising from lowering emissions and adapting to the effects of climate change.

Overall, New Zealand is among the ‘top’ few OECD countries regarding the number of natural and man-made disruptive events that it experiences.

Markets tend to cope quite well with relatively minor shocks. Policy is more concerned with larger or more novel shocks, and with known persistent trends. Climate change is an example of a persistent trend that generates further shocks, the frequency and severity of which are increasing. Resilience policy work therefore involves building the capacity to adapt to multiple shocks and trends over the long term.

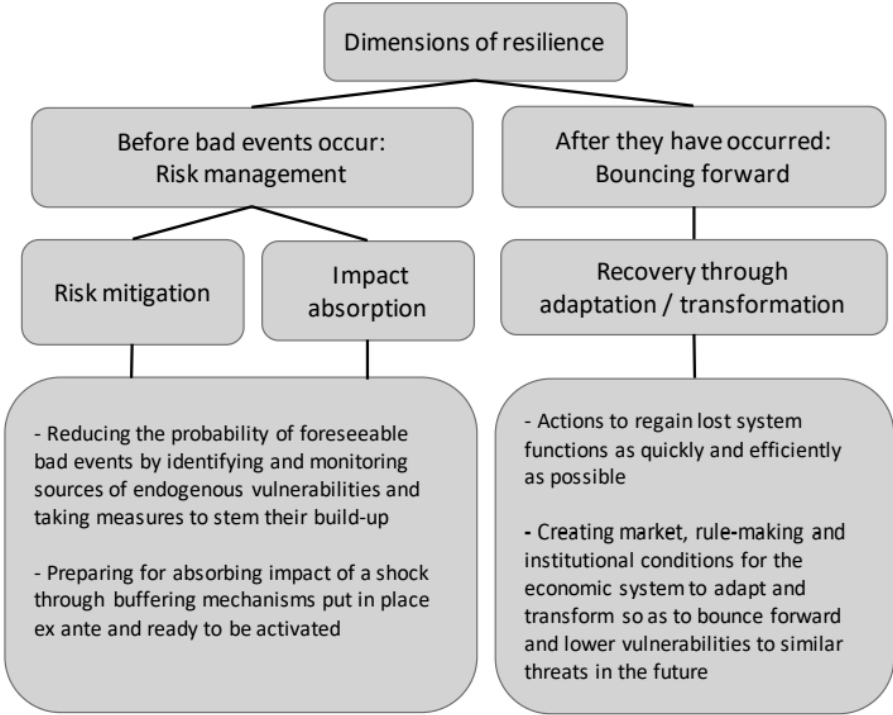
¹ By economic system we mean a system of production, resource allocation and distribution of goods and services within a society or a given geographic area.



Which policies may enhance resilience to those shocks or trends?

The OECD developed a useful conceptual framework about policies to support economic resilience – see Figure 1 below.

Figure 1: A conceptual framework of economic resilience policies



Source: OECD (2021) *Fostering Economic Resilience in a World of Open and integrated Markets: Risks, Vulnerabilities and Areas for Policy Action*.

Many different policies are relevant to enhancing the resilience of economic systems to the shocks and trends discussed above (global recessions, supply chain disruptions, earthquakes etc). The paper used Figure 1 to group relevant policies – see Table 1.

Table1: Resilience-focused policies	
Stage of resilience	Policy examples
Identifying and managing risks (<i>risk mitigation</i>)	<ul style="list-style-type: none"> Research and science to understand risks Information provision, disclosure and uptake Scenario planning, stress-testing, early detection of emerging trends
Preparing for a shock (<i>impact absorption</i>)	<ul style="list-style-type: none"> Governance, institutions and preparedness strategies Framework policies (regulations, institutions etc that affect the business environment) that either cushion a shock or reduce its persistence Early warning systems Local planning and infrastructure investment that integrates risks Stockpiling essential products and other supply chain measures Risk transfer instruments such as insurance Active and passive labour market policies such as job retention schemes



Regaining lost functionality (<i>recovery</i>)	Counter-cyclical monetary/fiscal policy Aid and emergency support for firms and households Locally-led responses to emergencies and disruptions
Preparing for future shocks (<i>adaptation/transformation</i>)	Learning from previous shocks Policies that build communities' long-term resilience capacities/capabilities Policies to support structural transitions

Source: Author based on various studies included in the paper

How effective are those policies?

International and New Zealand evidence suggests that some of the policies above *are* effective. For example, numerous case studies have shown that more democratic, accountable institutions can reduce losses from natural disasters and other shocks. However, in general there is limited robust empirical evidence on the impact of resilience-focused policies, and the effectiveness of policies depends on how resilience is defined. For example, some policies that dampen the initial impact of a shock may increase its persistence – ‘impact absorption’ may be at the expense of ‘adaptation’.

Key insights from evidence includes:

- **Ensuring effective governance.** Clarity around who has decision-making authority beforehand can be crucial for responding to fast-moving crises. Who has this authority varies by type of shock. For natural disasters and many other shocks, locally-led approaches are consistently found to be the most effective both in preparing for and recovering from the shock. Those closest to the ground have local knowledge and the highest stake in a strong recovery. However, communities may not always have the requisite capacities and capabilities, so these need to be developed over time. Trust and social cohesion are also vital. In practice, attaining the ‘right’ balance between national and local decision-making seems challenging.
- **Avoiding crowding out private risk mitigation efforts.** Well-functioning private insurance markets are important in preparing for a range of shocks. Insurance premiums and other price signals also play a key role in shifting activity and investment away from high-risk locations. A fundamental question is therefore whether policies enable more private risk mitigation or whether they act as a substitute; evidence on this point is mixed. Equity considerations are also important when considering potential public compensation for private losses.
- **Balancing short-and long-term goals.** Response measures need to be introduced quickly and efficiently, to enable people to ‘get on with their lives’. However, resilience policy must also take a long-term view and have an eye to long-term goals. There is growing evidence that governments tend to favour short-term considerations. For example, regarding climate change, floodplains and other high-risk locations continue to be developed in New Zealand and elsewhere.

How effective have resilience policies proven in New Zealand?

New Zealand has in place many of the resilience policies above. Studies tend to conclude that the country coped reasonably well with the COVID-19 pandemic, the Global Financial Crisis, earthquakes and other shocks. This tentatively suggests that overall policy settings are fairly effective. Aspects of New Zealand’s resilience policy settings that have worked particularly well include:

- strong trust, fundamental institutions and international reputation
- sound macro-economic and fiscal policy
- private mitigation measures including insurance uptake
- flexible labour markets and reallocation
- strong scientific base regarding certain risks.



Table 2 identifies aspects of New Zealand’s resilience policy settings that have not worked so well (first column) and some priority areas that have been suggested in various post-disaster reviews and other reports (second column).

Table 2: Areas of improvement for New Zealand’s resilience policy settings	
What has not worked so well	Suggested priority
Unclear roles and accountabilities and patchy performance	Strengthen governance including clarifying roles of central and local government Proactively mainstream risk reduction
Fragmented data sources about risks, and tools that encourage short-termism	Improve data and tools, including the development of a comprehensive and authoritative risk information system
Inability to recognise and prepare for structural change eg an economy that is heavily reliant on emissions-intensive industries	Prepare for, and shape, structural change including that arising from the transition risks from climate change
Persistent inequities among groups that are overly exposed to downturns and other shocks	Reduce inequities to help build resilience capacities Uphold principles of Te Tiriti o Waitangi

Source: Author based on various studies included in the paper

Conclusions

Evidence suggests that some policies are effective in enhancing the resilience of economic systems.

For predictable shocks, disruptions and trends, the policy emphasis is on preparing for the specific risk in advance. For unpredictable ones, the emphasis is on flexible and adaptable institutions and accepted decision-making processes. Clearly, the benefits of resilience policy work need to outweigh the costs.

More emphasis could be placed on preparedness strategies and long-term adaptation, rather than on the immediate recovery from a shock which tends to be the current focus.

Building resilience often involves sufficient stocks of flexible assets and resources that can be readily leveraged in times of crisis. This requires ongoing investment. It also involves addressing persistent disadvantage among groups that have limited access to such assets and resources.

Read the full version of the paper at www.mbie.govt.nz or call us on 04 901 1499.

