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Te Kāwanatanga o Aotearoa
New Zealand Government

New Zealand's productivity in a changing world

How can we accelerate the growth of high productivity activities in the New Zealand economy?

LONG-TERM INSIGHTS BRIEFING 2025

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

NEW ZEALAND FOREIGN AFFAIRS & TRADE
Manatū Aorere

More information

For background on this Briefing including a summary of submissions see our website:
mbie.govt.nz/ltib-future-productivity

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Foreword

Tēnā koutou katoa,

Productivity is vital for New Zealand's future. Yet our productivity performance in recent decades has lagged behind that of other advanced economies. This Long-term Insights Briefing looks at the reasons behind this lag, examines the global and domestic trends that affect productivity, and considers what we can do to improve our productivity performance.

Work on this Briefing has been undertaken by both the Ministry of Business, Innovation and Employment (MBIE) and the Ministry of Foreign Affairs and Trade (MFAT). Both agencies have a role to play in New Zealand's productivity, through economic development as well as through the international and trade aspects of New Zealand's productivity. Within these broad areas MBIE and MFAT have a variety of levers they can apply, including as advisors to the government and through the delivery of programmes.

Developed independent of ministers and the government of the day, this Briefing looks at our changing productivity landscape and presents some opportunities for government to help new high productivity sectors grow.

Specifically, the Briefing presents insights to guide future government approaches to domestic economic policy and international trade policy in a period of significant global change. It has a focus on the question of how we can accelerate the growth of high productivity activities in the New Zealand economy.

Efforts to lift New Zealand's productivity will need to navigate a much less certain global trading environment, climate impact and energy transition, while also leveraging technology-driven growth opportunities in international markets.

Focusing on engaging an increasingly diverse New Zealand population on productivity, the Briefing shares information on some of our most pressing productivity challenges and opportunities, and the choices we have to approach these.

When developing this Briefing we have considered feedback from Māori, the business sector, public, industry associations, regional entities, other government agencies and academics. By increasing public conversations on productivity, we can better prepare with a shared understanding of possible ways forward.

Our sincere thanks to all those who have engaged with us and contributed to this work. This has reinforced that the productivity issue matters to a wide range of stakeholders, and that regular sharing of information is important. This Briefing is one step toward this.

We look forward to continuing this conversation.

Ngā mihi

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1. Executive summary

Productivity is the main driver of income and living standards over time. It also contributes to other goals such as economic resilience, inclusiveness, environmental sustainability and cultural wellbeing. Productivity growth is vital for New Zealand's future.

This Long-term Insights Briefing (Briefing) presents insights to inform and guide New Zealand government approaches to domestic economic policy and international trade policy to lift productivity in the period ahead. Its focus is the question: How can we accelerate the growth of high productivity activities in the New Zealand economy?

New Zealand's productivity performance has lagged that of other advanced economies in recent decades, and the make-up of the economy has shifted towards lower complexity, lower productivity sectors. New Zealand can be more prosperous and enjoy higher standards of living in the period ahead with a renewed focus on productivity growth through the creation and capture of greater value, not just greater quantity, through all economic activities.

That is not to say that this is easy. New Zealand's unique economic geography poses real challenges for productivity. The vast distance to key markets and suppliers hinders efforts to connect and innovate internationally, as does an internal economy comprising a series of small dispersed regional economies largely made up of small firms.

A future high productivity New Zealand economy will be one that tilts towards higher value, more knowledge-intensive and technology-driven activities, strengthens international connections and trade, and makes smart use of our comparative advantages. New Zealand already has high value opportunities developing in new areas that build on existing economic strengths and capabilities, for example in a range of bio-based products.

Crucially, this Briefing has a view to the future. It explores some of the global challenges arising from geopolitics, technological development, climate change and demographics, and how they may interact with and affect New Zealand's productivity over the next ten years and beyond (Figure 1).

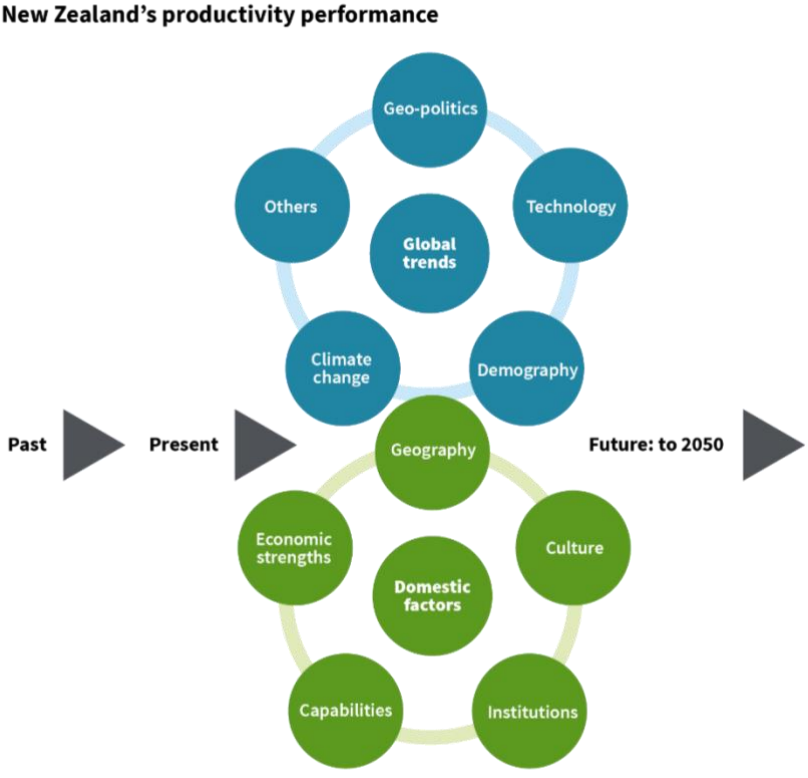


Figure 1: New Zealand's productivity performance is influenced by global trends, domestic factors and their interactions.

The deteriorating geopolitical outlook, fast pace of technological development, pressing limits on environmental resources and other changes happening in the world provide impetus, opportunity and challenge for this shift to higher productivity economic activities.

To do this, New Zealand will need to successfully navigate the challenges of an uncertain global trading environment, the energy transition and impacts of a changing climate, while also leveraging technology-driven growth opportunities in international markets. The complexity and uncertainty in these global shifts point to the importance of forward-looking policies that support system-wide capability, agility, innovation and resilience in the economy – all of which underpin and are supported by productivity growth.

The Briefing provides a framework to help all actors in the economy – government, industry, firms, research institutions, iwi and communities – apply a strategic approach to support productivity, through questions such as:

- What or where is the productivity growth potential? (Opportunities)
- How can innovation be enabled to realise the opportunity? (Dynamics)
- What is the future outlook of challenges and opportunities? (Trends)

These considerations require deep capability in government for analysis and coordination, active engagement with industry, business, iwi and others in the system, as well as a diverse range of information inputs, such as market-signals, research and lived experience. The framework indicates how the insights arising from this strategic approach can lead to an appropriate mix and choices of policy levers, both horizontal and vertical.

New Zealand is credited with having strong 'horizontal' policy settings, that apply across the economy, for example macroeconomic, labour market and competition policies. These settings enable markets to operate well and are conducive to private investment, business creation and employment. They require continual refinement and must be responsive to changing domestic and international circumstances.

Governments, including New Zealand, also use 'vertical' levers that target specific sectors, places, technologies or issues where government intervention can add value. These go beyond subsidies to include coordination, regulatory enablement, innovation support and research and development (R&D). Such inputs are integral to the market system, interacting with businesses, communities and the environment to build competitive industries and dynamic, sustainable economic ecosystems.

Globally, the growing use of vertical levers reflects policy imperatives such as productivity, national security, public value and the energy transition. Other Small Advanced Economies (SAEs) have been more deliberate and strategic in deploying these vertical policy tools than New Zealand.

Comparative case studies in this Briefing show how targeted policies can complement horizontal settings to accelerate innovation, improve efficiency across value chains and enable diversification into adjacent industries – key steps to raising productivity and resilience.

International levers also improve productivity by enhancing trade and international connectivity. These levers include trade and economic agreements as well as economic diplomacy, support for

export capability and capacity and investment attraction. With Free Trade Agreements (FTAs) now facilitating market access for over two-thirds of New Zealand's exports, this Briefing foresees opportunities for productivity growth through deeper regional economic integration and regulatory cooperation with key partners already engaging in closer integration. This can help mitigate the disadvantages of New Zealand's distance from markets and small scale, and in doing so support innovation and growth in higher value and more knowledge-intensive sectors.

To lift productivity, New Zealand needs to apply the right mix of economic policy levers, tailoring them to our specific characteristics. Government's role is to create the conditions in which high productivity activities with growth potential can emerge and evolve, by fostering connections, removing bottlenecks, reducing market frictions and supporting capability development across sectors and regions.

Case studies of the dairy, space and advanced aviation and biomanufacturing sectors, as well as New Zealand's close ties with Australia, illustrate the range of levers the New Zealand government is already using in these areas. A main insight from these is that consistent, credible and coherent government engagement helps to build lasting industry strengths and opens opportunities for economic diversification. Strategic, long-term attention helps the system hold direction, providing certainty for private investment and delivering enduring gains.

This Briefing identifies five principles to help guide long-term productivity decisions:

1) adopt a coherent, long-term, economic approach

2) strengthen strategic assessment, market intelligence and evaluation

3) prioritise internationally oriented, knowledge-intensive clusters

4) build a productivity ecosystem where innovation, talent and infrastructure work together

5) use internationalisation and trade policy as integral productivity levers.

The application of these principles will need to reflect New Zealand's unique context, making use of our capabilities, clusters of regional economic strength and the success of the Māori economy.

In a future that will not look the same as the recent past, New Zealand will need to adapt and be prepared to do things differently if it is to lift its productivity performance. New Zealand has strong foundational policy settings from which to grow and help navigate a period of greater global uncertainty and volatility.

This Briefing describes how a strategic and deliberate approach to economic development policies, and to growing international connectivity and trade, can help accelerate the emergence and growth of high productivity activities in a rapidly changing world.

2. The background to this Briefing

Long-term Insights Briefings are a different way for government agencies to explore issues that matter for the future of New Zealand. They do not contain recommendations and are not government policy. They do, however, offer a fresh and forward-looking way of examining important issues.

This Briefing was prepared by MBIE and MFAT. As such it focuses on economic development, as well as international and trade aspects of New Zealand's productivity.

As productivity is a broad topic, we chose to focus on a core question: How can we accelerate the growth of high productivity activities in the New Zealand economy? The Briefing answers this by setting out insights, a framework, principles and choices for government to help high productivity sectors grow and identifies how international trade and connections can enhance productivity.

This focus means that this Briefing does not cover all aspects of productivity. Even so, there were many issues raised during the consultations, such as the important role of public trust, the labour market and the foundational role of health and education, that helped inform our thinking.

This document is the result of our research which involved review of published material from New Zealand and elsewhere, as well as our own case studies. It has benefited significantly from the feedback received during the public consultation on the topic from November 2024 to February 2025, and on the draft Briefing from October to November 2025.

What we heard

The feedback we received on the draft Briefing offered strong support for our diagnosis of why New Zealand faces productivity challenges, and the overall direction of the Briefing's suggestions for systemic solutions. The opportunity for coordinated action across government, working with business and regions was widely recognised, as was a move to more deliberate use of a mix of domestic and international policy levers that mutually reinforce each other.

There were many suggestions to strengthen the Briefing that we have incorporated. We have been clearer that productivity growth should focus on value. We have also reflected the suggestions for how institutions and investment can help ensure more enduring long-term approaches for the economy, and how further growth and productivity in the Māori economy could be unlocked. There is more visibility of the role of innovation, governance and commercial capabilities in businesses, and how regional clusters could be developed and aligned more strongly with international and trade opportunities.

We were encouraged to consider the capability that government needs to address productivity, for policy design as well as implementation, and to consider the role of others in the system, as partners with government. This Briefing reflects these important points.

A full summary of the feedback from the consultation on the draft can be found in this link.

How to read this Briefing

Each section of the Briefing explores the topic of New Zealand's future productivity from a particular perspective. While the different sections examine issues that are interconnected, it is also possible to read any section of the Briefing on its own.

Section 3 of the Briefing examines the patterns in New Zealand's past and current productivity, and the impacts of the country's unique characteristics including our geography, international connections and economic structure.

Section 4 identifies important global shifts under way in geopolitics, technology, energy and climate change and demographics that will influence New Zealand's productivity in the period ahead.

Section 5 explores contemporary approaches to economic development and sets out a framework to support thinking about domestic and international policy settings that can lift New Zealand's productivity, including broad-based, economy-wide policy settings and targeted policy settings.

Section 6 applies this framework to explore how Denmark, Finland, Ireland and Singapore, as other small advanced economies, are taking strategic approaches and using a mix of policy levers to support their productivity growth and competitiveness.

Section 7 applies the framework to case studies on New Zealand's dairy, space and advanced aviation and biomanufacturing sectors, and an international case study of New Zealand's Single Economic Market with Australia. This approach is used to illustrate the range of targeted policies that New Zealand is currently using and draws insights about how this could develop going forward to lift New Zealand's productivity and navigate a period of global change.

Section 8 draws the threads of the Briefing together to lay out some principles and choices to answer our key question: How can we accelerate the growth of high productivity activities in the New Zealand economy?

Section 9 is a Glossary with explanations for some of the more technical terms in this Briefing. Terms with Glossary explanations are those underlined through the document.

Note on AI use:

Some of the content in this Briefing was developed with the assistance of the Microsoft Copilot AI tool. CoPilot was used for information gathering, content generation, and to summarise and edit some sections of this Briefing. The authors have reviewed and verified all factual content and references to ensure accuracy and uphold quality standards.

What is productivity?

Put simply, productivity is a measure of the value of outputs produced for given inputs. Standard definitions focus on the amount of goods and services produced (see box):

Standard Productivity Definitions

- **Labour productivity** measures the amount of goods and services a worker produces in a certain amount of time.
- **Capital productivity** is output per machine.
- **Resource productivity** is output per unit of resource, such as materials, electricity, fuel or land.
- **Multifactor productivity** measures the increases in output that cannot be attributed to increases in labour or capital inputs. This includes how efficiently a business, an industry or an economy turns multiple inputs like labour, capital, materials and energy into goods and services.

A more complete understanding recognises that productivity growth is about producing more valuable goods and services from the same resource base. It is the creation and capture of this greater value, not just greater quantity, that is needed to grow productivity. For example, if a meat processing company uses smart sensors, automated cutting and real-time data analytics to produce more meat with the same number of sheep and workers, its multifactor productivity has improved, and the firm is more efficient. However, if higher output lowers prices due to competition, profits and wages may not rise. In contrast, creating a new value chain into a high-income market can increase the value from the same inputs, driving stronger productivity growth.[1]

The ways of thinking about and measuring productivity are also evolving in other ways. The use of artificial intelligence (AI) in workplaces is extending the concept of labour productivity to include human-AI collaboration and system-level AI cooperation. Ideas about 'capital' now encompass intangible assets like data, alongside physical and financial assets. Resource productivity is increasingly important for sustainable, efficient use of physical resources, especially energy.

Productivity is often measured at a point in time, through output-to-input ratios. This Briefing focusses on how productivity evolves through dynamic processes. In this way, productivity is not just a measure of firm-level efficiency; it is a function of the broader economic system, shaped by what an economy knows how to produce (its capabilities), and influenced by geography, history and global market forces. Productivity depends on how well these capabilities are connected and coordinated across supply and value chains and networks. Efficient, well-structured systems enable resources to flow smoothly between firms, sectors, and borders, supporting innovation and responsiveness. Crucially, they also allow resources to shift to where they are valued most.

Trade policy plays a critical role in this coordination, not only by reducing barriers, lowering costs, improving connectivity, and increasing competition, but also by opening access to high income consumer markets. Trade can lift prices for producers and deliver terms-of-trade gains not always directly linked to productivity, thereby raising incomes. The strategic role of trade and value chains is to increase the value New Zealand creates and captures in global markets. Smart trade relationships and well-functioning value and supply chains are foundational to both firm-level productivity and overall economic competitiveness.

This Briefing aims to explore these connected areas through the lens of productivity, with an emphasis on value creation and capture.

3. New Zealand's productivity – the story to date

This section explains that New Zealand's past and current productivity performance reflects the country's geography, international connections, economic structure and policy settings.

Key features of the New Zealand economy

New Zealand is a small, advanced open-market economy located in the South Pacific. Like all economies, New Zealand's economy has some unique features. It is shaped by a distinctive structure: a predominance of small firms, a service-heavy GDP, weak international connections and a strong reliance on biological exports. These features influence how productivity emerges and where its limits lie:

- **Small firm structure:** New Zealand's economy is dominated by small firms, with over 15 per cent of workers self-employed and most businesses employing fewer than 10 people. These firms often serve local markets and face constraints in scaling, specialisation and investing in productivity-enhancing technologies.[3] [4]
- **Service-heavy economy:** Services contribute around 70 per cent of GDP.[2] Many are labour-intensive and locally bound, making them harder to scale and less likely to drive rapid productivity growth. Tourism's direct and indirect contribution to GDP is around 6 per cent based on recent information.[2]
- **Weak international connections:** New Zealand's geographic isolation and small scale limit its integration into global networks, reducing access to knowledge spillovers, collaboration and high value trade.
- **Manufacturing and biological processing:** Manufacturing has declined to around 7 per cent of GDP,[2] with around 60 per cent linked to biological processing (eg food, wood, agritech).[3] Including the wider bioeconomy, these products make up at least two-thirds of New Zealand's total exports of goods and services.[4]
- **Emerging export sectors:** High- and medium-high tech manufacturing contributes around $8 billion in exports. Information and communication technology (ICT) exports have grown strongly, reaching an estimated $3.5 billion in 2024. These sectors are knowledge-intensive but still relatively small.[5]
- **Māori economy growth and diversification:** Anchored within the national economy, the Māori economy is growing rapidly, with its GDP contribution rising from $17 billion (6.5 per cent) in 2018 to $32 billion (8.9 per cent) in 2023. Māori-owned assets have nearly doubled, from $69 billion in 2018 to $126 billion in 2023, and economic activity is diversifying beyond traditional sectors into professional and administrative services, reflecting innovation and capability development.[6]
- **Barriers to transformational growth:** Entrepreneurship, innovation, infrastructure and export orientation are key to productivity transformation, but these are harder to activate in a weakly connected, fragmented, small-firm economy without targeted support.
- **Strategic role of trade and supply chains:** For a geographically remote country with weak international connectivity like New Zealand, trade policy and supply chain efficiency are critical. FTAs help reduce barriers, harmonise standards and embed firms into global

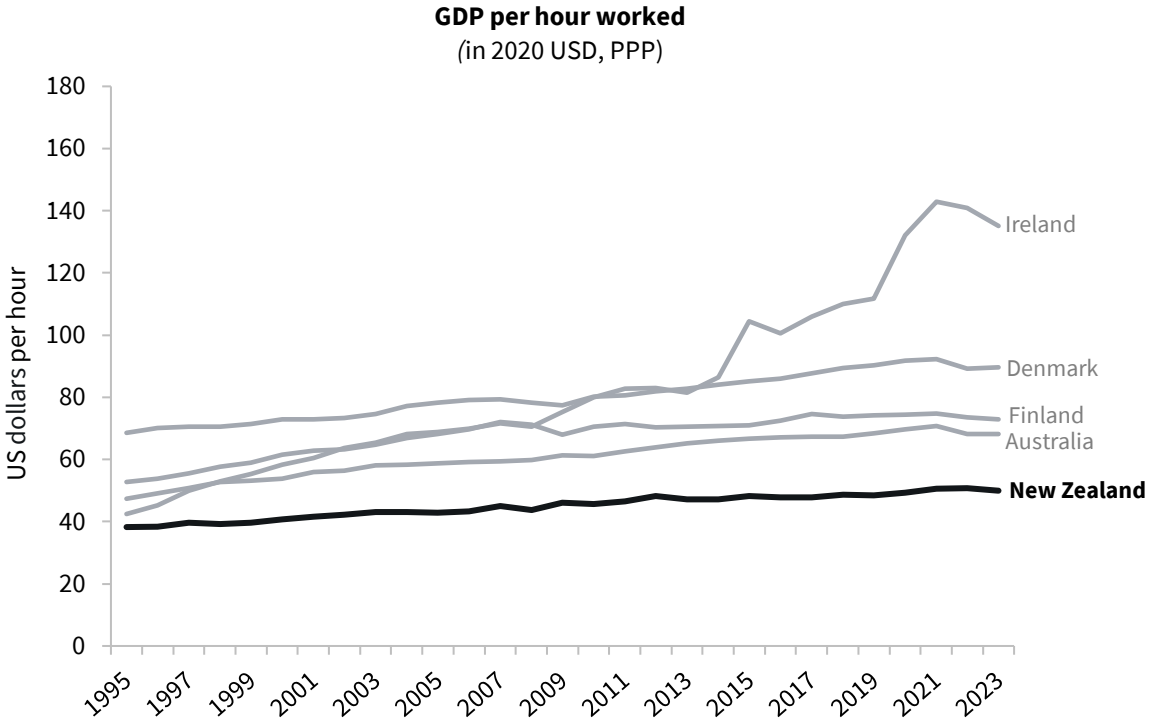
production networks enhancing both firm-level productivity and system-wide competitiveness.

Insight: New Zealand's economic structure, dominated by small firms, services and biological exports, shapes the country's productivity potential.

New Zealand's productivity lags other advanced economies

New Zealand's productivity has lagged other advanced economies for several decades (Figure 2). Much of the country's economic growth has been driven by increasing labour inputs (more people working more hours) rather than by improvements in efficiency or output per worker.[7]

Figure 2: New Zealand's labour productivity compared to other advanced economies.[8 a]



Source: OECD, 2025

Comparative data shows that both labour productivity and capital productivity remain below the Organisation for Economic Co-operation and Development (OECD) averages. According to the International Monetary Fund's (IMF) 2025 Article IV Report, New Zealand's GDP per hour worked was close to Scandinavian peers in 1970, but by 2022 it was 40 per cent lower, reflecting a widening productivity gap.[9] The IMF also notes that New Zealand's capital intensity, capital stock per hour worked, is significantly lower than in comparable economies, limiting the productivity returns from labour and skills.

[a] Note: Ireland's productivity figures are shaped by unique factors, including the entry of large multinationals. As a result, comparisons with Ireland should be viewed as indicative rather than definitive.

Despite high labour force participation and strong educational attainment, productivity growth has been weak. A key issue is skills underutilisation. Many workers are employed in roles that do not fully leverage their qualifications or capabilities. Structural constraints such as low capital intensity, limited scale economies and weak innovation diffusion further reduce the impact of human capital investments.

New Zealand's small market size and geographic isolation also dampen competitive pressures and reduce incentives for firms to adopt productivity-enhancing technologies. The IMF highlights these factors as key contributors to low multifactor productivity growth, which reflects inefficiencies in how labour and capital are combined.

> "Weak productivity growth poses a significant challenge for New Zealand's long-term economic prospects. Low productivity growth partly reflects structural factors including New Zealand's remote geography and small markets, as well as the relatively large role of the tourism and agriculture sectors. However, it also reflects costs and incentives for investment and innovation, which in turn are shaped by features of the business environment and limited financing options." – IMF report [9]

Insight: New Zealand's productivity challenge is structural. Despite a well-educated workforce, systemic constraints, low capital intensity, small firm size and weak innovation diffusion mean that inputs are not being fully leveraged.

Economic complexity has fallen

Productivity growth is typically linked to a shift towards higher value, knowledge-intensive and technologically-driven activities, yet New Zealand has moved in the opposite direction. From 2000 to 2023, New Zealand's economic complexity ranking (based on the diversity and sophistication of its export basket) fell from 52nd to 68th out of 145 countries.[10] This decline reflects globalisation, technological change and the rise of knowledge-based industries.

Like many advanced economies, New Zealand has shifted toward services. While some are highly productive (eg ICT and finance), many others like tourism and hospitality are labour-intensive and lower productivity.[10] The export sector has not surprisingly concentrated around New Zealand's comparative advantage in biological materials (food and fibre), where it leads globally. These sectors benefit from strong demand, branding and preferential trade agreements, but face resource constraints and limited potential for automation or scale.[11]

Primary industries have seen the strongest productivity growth, supported by a robust science system and sustained investment. However, they remain less scalable than sectors like manufacturing or financial services.[7] Meanwhile, recent economic growth has been driven more by population increases (particularly through migration) than by productivity gains. Domestic investment has skewed toward residential property rather than productive activities like R&D, high-tech manufacturing or export-oriented services, contributing to low capital intensity and a less diversified, more vulnerable economy.[12]

Insight: New Zealand's economy is not currently growing in complexity at scale. Improving productivity performance will require a shift toward higher value, knowledge-intensive and technologically-driven activities and rebalancing investment toward productive sectors.

Higher productivity sectors are emerging

Some higher-productivity sectors are emerging in New Zealand, building on longstanding capabilities and geographic advantages. For example, value-added food and beverage exports reached $8.8 billion in 2025, while high and medium-high tech goods generated $8 billion in 2024 and ICT exports contributed $3.5 billion.[5]

In the case of food and beverage, these gains reflect strengths in bioprocessing, logistics, regulatory expertise and food science, forming a foundation for diversification into adjacent industries such as infant formula, biopharmaceuticals, cosmetics, marine bioactives and innovative food preparations, all showing strong export growth and attracting investment. Infant formula is a specific example of this diversification shift, growing from $387 million in 2015 to over $2 billion in 2025, with a 10-year Compound Annual Growth Rate of 18 per cent.[13] This example highlights how capability upgrades in formulation, quality control and compliance can drive productivity and innovation.

These adjacent industries share core capabilities and offer scalable paths to diversification, with firm growth and rising investment signalling confidence in New Zealand's bio-based value proposition. Unlocking greater value from New Zealand's biological resources can enable a more sustainable, low-emissions bioeconomy, which strengthens resilient economic growth and supply chains while reducing waste and pollution.[11]

The Māori economy is also contributing to this productivity growth through increasingly diverse activity, especially in professional, scientific and technical services.[6] Māori authorities and SMEs outperform the broader economy in employment, innovation, R&D and exports.[14] Submitters to this Briefing noted that values-driven Māori enterprise grounded in concepts of *whai rawa* (shared prosperity), *oranga* (wellbeing), and *taiao* (environmental balance) are aligned with growing global demand for ethical, sustainable products. [15] Māori and Iwi are forging trade and investment links, supported by FTA Indigenous chapters and rising global interest in Indigenous knowledge and IP.[16] Addressing barriers like limited capital and underutilised land through government partnership can unlock inclusive growth. This is important as Māori are projected to comprise 20 per cent of the workforce by 2040,[6] reinforcing the Māori economy as a central contributor to New Zealand's future productivity performance.

Insight: High value adjacent industries and the growing Māori economy offer promising pathways for innovation, diversification and both inclusive and environmentally sustainable productivity growth.

New Zealand's distant and dispersed geography constrain productivity

New Zealand is a small, geographically remote economy. For much of the 20th century, its distant location was offset by close economic ties with Britain, which provided a stable export market and strong institutional links. This arrangement ended with the UK's entry into the European Union (EU) in 1973, prompting New Zealand to reorient toward global markets. From the mid-1980s, the country embraced neoliberal reforms in line with trends among other OECD economies of deregulation and trade liberalisation. This shift exposed New Zealand to both the challenges and opportunities of international competition, though without the protection of a guaranteed market in Britain.

Around the world, as globalisation and technological change accelerated in the late 20th century, economic activity became increasingly concentrated in large, globally connected urban centres. These hubs benefit from dense infrastructure, skilled labour and fast information flows, all conditions that support knowledge-intensive and technologically-driven industries.

In contrast, New Zealand's small scale and geographic isolation limited its integration into these global networks, reducing access to knowledge spillovers, collaboration and high value trade. External distance also dampens market signals, making it harder for innovators to stay attuned to customer preferences, emerging consumer trends, shifting competitive dynamics and potential technological disruptions.[7 17] These characteristics are features of a periphery economy.

Periphery versus core economy characteristics

New Zealand can be described as a 'periphery' economy, ranked second of 181 countries for geographic distance from markets across its overall flows of trade, capital, information and people.[18]	
Periphery economies demonstrate: • geographic isolation from major markets • lower levels of industrialisation and innovation • dependence on primary industries and commodity exports • lower wages, brain drain • vulnerability to external economic shocks and decisions made elsewhere.	Core economies demonstrate: • high levels of industrialisation and innovation • strong infrastructure and connectivity • concentration of capital and decision-making power • high GDP per capita and productivity • dominance in global trade and finance network.

In knowledge-based economies where value is driven by intangible assets like data, intellectual property and human capital, success depends on having strong innovation ecosystems and global connectivity. For New Zealand, these objectives of innovation and connectivity, are also a way of overcoming geographic disadvantages.

Insight: Globalisation has presented challenges and opportunities for New Zealand to overcome its geographic isolation. The rise of knowledge-based economies highlights the role that deeper integration into global innovation networks can play to overcome structural constraints.

New Zealand's internal geography also plays a significant role in shaping productivity. Despite its small population of 5.4 million, the country spans a large land area – over a quarter larger than

Denmark, Ireland, Israel, Singapore and Switzerland combined. This makes New Zealand best understood as a collection of small regional economies, each with distinct place-based climates, industries, capabilities, histories and partnerships with local iwi.

Most New Zealand firms are small and operate in insular markets, limiting their ability to scale, invest in capital, and connect with global frontier firms, constraining productivity growth. Critical market features such as a deep share-market, specialised equity analysts and industrial clusters are thin or missing, further limiting commercialisation and innovation.

This geographic dispersion also contributes to structurally higher costs and limited scale in infrastructure, transport and manufacturing. Supplying distant regional markets is expensive due to long distances and limited transport options. A tension exists between enabling firms to scale through mergers (which potentially reduces competition) and maintaining a competitive local market. These dynamics have important implications for policy design.

Insight: New Zealand is better considered as a network of regional economies rather than a single uniform one. Differences in firm size, industry mix and regional capabilities shape productivity outcomes and can call for place-based policy approaches.

International trade lifts productivity, but New Zealand's trade intensity remains low for a small open economy

After World War II, the global system was built to support stability and open trade. Over the past 50 years, major shifts, including the collapse of the Bretton Woods system in the 1970s and a wave of trade liberalisation in the 1980s, led to the creation of the World Trade Organization (WTO) in 1995. This institutionalised a rules-based trading system and the acceleration of global integration, enabling greater flows of trade, capital, people and knowledge.

In response to these changes, New Zealand repositioned its economy to embrace global markets. Successive New Zealand governments have pursued an active international trade policy agenda aimed at enhancing international connections and integrating the New Zealand economy into global markets and opportunities. New Zealand's international trade architecture – spanning multilateral, plurilateral, bilateral and unilateral approaches – has expanded access to international markets and supported productivity growth.

New Zealand signed its first FTA with Australia in 1983 and particularly since 2000 has developed an expanding network of FTAs. The importance of these agreements to New Zealand has grown significantly over the last 20 years, both as additional agreements have entered into force and as the countries have grown in importance as export markets for New Zealand. The value of New Zealand's exports covered by FTAs has grown from around 25 per cent in 2007 to more than 70 per cent of exports today.

For New Zealand, FTAs are not just about exports. They are strategic tools for embedding our firms into high-performing international production networks, ensuring greater domestic competition and lowering input prices, as well as expanding choice and lowering costs for New Zealand consumers.

While New Zealand's network of FTAs now covers around 70 per cent of our trade, it only covers around 62 per cent of global GDP. Demographic and economic trends suggest the global GDP coverage of New Zealand's existing FTA network will increase over the next decade. However, by 2050, global growth is expected to be driven by countries outside this network. Without further action, New Zealand's FTA coverage could fall below current levels (Figure 3).

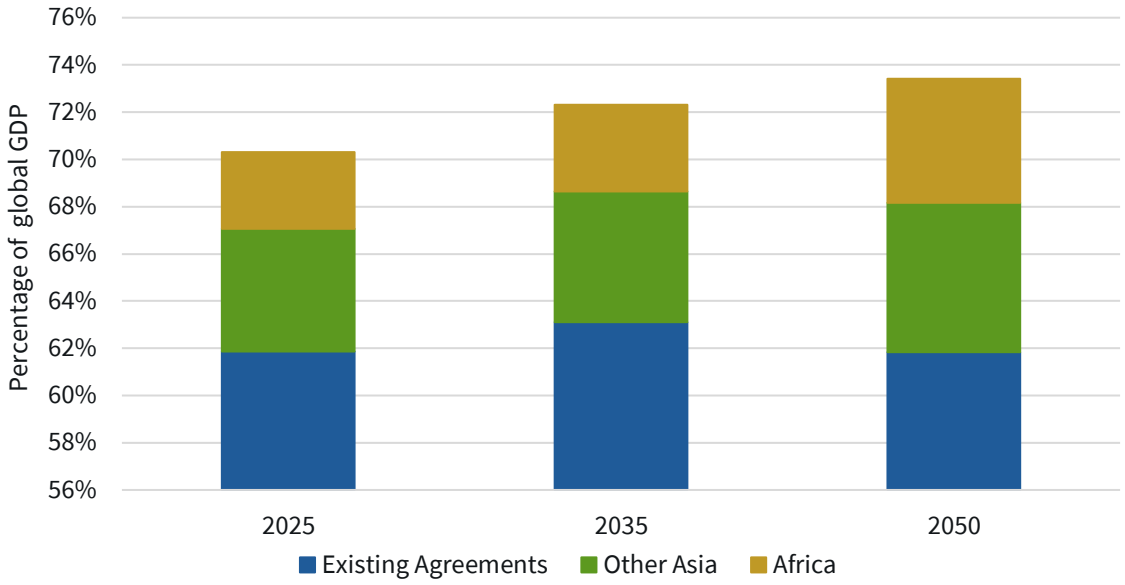
Emerging economies are expected to lead future global growth. Expanding and deepening trade relationships with these countries, including in South East Asia and Africa, would open new opportunities for New Zealand businesses, enhance resilience against geopolitical risks and allow the country to benefit from these growing economies. It would complement trade with New Zealand's existing high value markets, including Australia, the US, North Asia and Europe, that currently provide the most opportunity for our innovative and knowledge-intensive firms to scale.

Another important pattern to note is that, although the value of New Zealand's exports has nearly doubled since 2007, exports have declined as a share of GDP (Figure 4). While this decline is a global phenomenon, this trend suggests a growing disconnect between trade performance and overall economic output.

Some New Zealand firms in advanced manufacturing have relocated parts of their production offshore to large industrial hubs in Asia and elsewhere, gaining access to deeper markets, specialised suppliers, skilled labour and lower costs. Similarly, services firms like software as a service (SaaS) providers (eg Xero) have established offshore subsidiaries to better serve global customers.

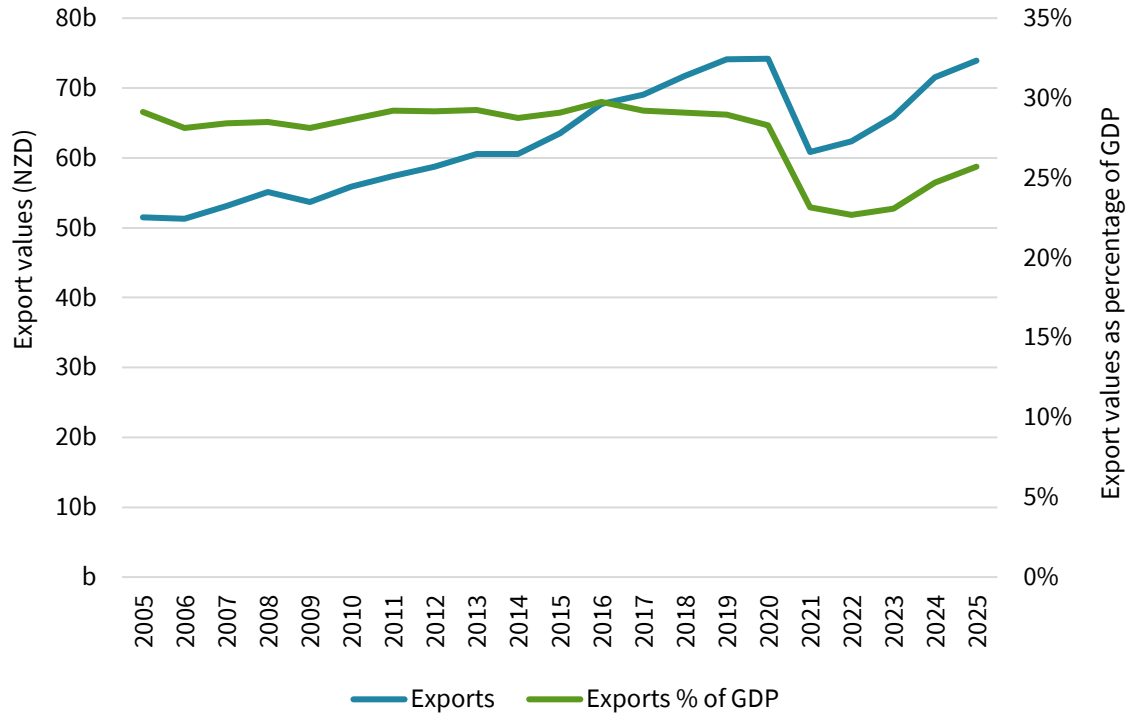
These strategies expand New Zealand's international commercial footprint and deepen global integration, but they are not fully captured in official export statistics. Of note, the measurement of services exports remains challenging and may understate the extent of New Zealand's global economic engagement.

Figure 3: New Zealand FTA coverage of Global GDP.[b]



Source: Economist Intelligence Unit, MFAT, Authors' calculations [19] [20]

Figure 4: New Zealand's export performance (in real dollars, expressed in 2009/10 prices).



Source: Statistics New Zealand. Authors' calculations. [21]

Insight: To sustain productivity and remain competitive in a shifting global landscape, New Zealand's trade policy can look beyond securing market access to deepening integration, connecting firms, talent and institutions to global innovation ecosystems.

[b] Note: The existing agreements include those signed with the UAE and the GCC, and the agreement currently being negotiated with India.

4. Global trends and pressures shaping future productivity

Significant global transitions are underway across multiple domains, including geopolitics, technology, energy and demography. These forces are reshaping the global operating environment in complex and often unpredictable ways. This section outlines some of the changes happening now and ahead in these areas and their impacts on productivity and the economy.

Geopolitical tensions are rising, technological change is accelerating, climate disruption is intensifying, and demographic shifts are altering patterns of demand, labour and investment. Many of these changes are deeply interconnected, amplifying uncertainty about how the future will unfold. Old assumptions about stability, openness and linear progress may no longer hold.

Lifting New Zealand's productivity will require navigating an increasingly contested, volatile and fast-moving global landscape. The challenge is not only to respond to change, but to build the capability to adapt, connect and thrive in a less stable and less predictable world. For government, this means productivity goals must be underpinned by economic resilience.

A geopolitical transition to a 'multi-polar world'

The international system of rules and institutions established following World War II is giving way to a more contested global environment characterised by strategic competition between large economies and the undermining and reshaping of global rules and norms. Put simply, it is the most challenging and uncertain geopolitical environment New Zealand has faced in decades.

There has been a turning point away from decades of deepening trade liberalisation and economic integration, and an accelerating erosion and retreat from the global rules-based trading system.

Perceived risks associated with an interconnected global economy, together with an uneven distribution of the economic benefits from globalisation, have undermined political and societal support for free trade. The general trendline is towards regionalism, protectionism and economic nationalism, as well as a renewed emphasis on protective industrial policies for goods and services deemed sensitive for reasons of national and economic security. The locus for maintaining open trade is shifting from the global level to regional trade blocs and smaller coalitions of like-minded countries.

Growth in international trade has fallen from an average of 5.1 per cent in the 2000s to 4.6 per cent in the 2010s to 2.6 per cent in the 2020s.[22] International goods trade is forecast to grow at just 0.5 per cent in 2026, reflecting an increase in tariffs and acute levels of policy uncertainty.[23]

> Between October 2023 and October 2024, WTO members implemented trade-restrictive measures covering $888 billion in trade, up from $337 billion the previous year.[23]

These trends are forecast to have a negative impact on global economic growth and productivity by adding inefficiency and uncertainty into the global economic system and raising costs for business. Further fragmentation in the global economic system along geopolitical or geographic lines in the period ahead would exacerbate these impacts.

As a small open trading nation reliant on global trade rules and supply chains, New Zealand's economy and future productivity will be impacted by these geopolitical trends. Rising

protectionism and the undermining of global trade rules are likely to increase barriers, create uncertainty and add costs to New Zealand exporters. A slowing global economy may also dampen international demand for our goods and services. Domestically, access to goods and services may become more expensive and less reliable. Increased supply chain disruptions, including from increased incidences of conflict, pose potential risks around accessing international markets for our goods and services exports, as well as the cost of critical imports.

At the margins, there may be some positive impacts for productivity from these geopolitical shifts; for example, the geopolitical environment is driving increased defence spending, orientating public spending towards R&D that may in turn boost innovation and private investment over the medium-term. There may also be opportunities for New Zealand with global economic growth potentially shifting towards parts of our wider region, such as South East Asia, at a time when regional supply chains are being prioritised.

Strategically aligned partners may see benefit in deepening trade and economic integration with New Zealand. A less secure global environment may increase the relative attractiveness of New Zealand as a destination for foreign direct investment (FDI). The use of subsidies in large economies may lower prices for New Zealand consumers in sectors where New Zealand lacks productive capacity, including in goods enabling the energy transition.

New Zealand's foreign policy and domestic economic policy will need to respond and adapt to this more contested and volatile geopolitical environment where economic and national security goals are increasingly intertwined. Productivity objectives and national resilience can be supported through a foreign policy that deepens relationships with New Zealand's likeminded partners including within our region, defends our core interests in an international rules-based system under strain, and strengthens our international trade architecture to provide diversity and optionality of markets for New Zealand exporters and business.

Insight: New Zealand faces a much less certain and more disrupted global trading environment that means productivity gains will also depend on resilience in the economy, as well as our agility and the capability to capture new opportunities as they arise.

A technology transition with physical, digital and biological realms increasingly merged

Technology can significantly enhance productivity, though its effectiveness depends on good implementation and absorptive capacity. Rapidly developing technologies, including AI and quantum computing, have potentially transformative opportunities, including for economic and trade growth and productivity. However, there are uncertainties as to the extent and form in which these opportunities may be realised.

Generative AI is estimated to increase productivity by 1.5 per cent by 2035 and close to 3 per cent by 2055, with growth strongest in the early 2030s and then declining as the technology becomes normalised.[24]

Technologies related to the production and processing of primary products, including genetic, synthetic and industrial biotechnologies, also have important potential to impact on New Zealand's productivity.

Emerging technologies also pose sizable risks and challenges, including for the labour market and for social cohesion, as well as the potential for harm from malign actors (eg cyber-attacks and disinformation).

These technologies are expected to shape the labour market, with AI's disproportionate effect on higher-skilled tasks indicating New Zealand's advanced workforce may be more exposed to disruption, reinforcing the need for targeted upskilling and regulatory adaptation.[25]

Without proactive support and investment to reskill and upskill the labour force, there is a risk of widening inequality and long-term unemployment for affected groups. Productivity gains are most sustainable when they are inclusive and when workers are supported through economic transitions, particularly in sectors undergoing digital transformation.

New Zealand's geographic distance, alongside the other size, scale and capability challenges, have tended to limit access to, and adoption of, advanced technologies that are critical for driving productivity growth.[7] [26] Our comparatively small and dispersed population has also hindered dynamic knowledge transfer and innovation relative to more densely populated and geographically connected countries.

New Zealand will need to overcome these constraints to harness the potential productivity gains from digital technologies, including AI and robotics. Adoption of these emerging foundational or 'general purpose' technologies which have broad applications across multiple economic sectors is key to improving competitiveness, productivity and efficiency.

Insight: Rapidly developing general purpose technologies could drive significant productivity gains, but will require deliberate investment, inclusive adaptation and systemic transformation across institutions, industries and workforces.

An energy transition to renewable energy sources and a low emissions global economy, with increasing physical impacts from climate change

A global energy transition is under way, with many economies recognising geostrategic advantage from leadership in clean energy, as well as the imperative to lower climate warming emissions. Record amounts of renewable energy are added annually, though fossil fuels remain dominant at 80 per cent of global energy supply.

The changing climate will impact economies significantly, and particularly if climate tipping points are reached. Yet proactive and stable policy approaches, while likely to cause temporary declines in labour productivity as firms and workers adjust to new incentives, are expected to improve productivity performance over the medium- to long-term, including through innovation and efficiency gains.[27] [28] [29] Delays and reactive decisions will, however, weigh on productivity through poorly managed resource allocation, stranded assets and increased risks of shocks.

Global renewable electricity generation is forecast to increase by the end of this decade by almost 90 per cent relative to 2023. This would be enough to meet the combined power demand of China and the United States in 2030, however, will still only meet 20 per cent of global energy consumption.[30]

New Zealand's access to, and adoption of, renewable energy technologies could play a key role in helping to build a resilient and productive economy in the period ahead. The nexus between energy and data infrastructure as core national productivity assets is increasingly apparent, as the energy demands from AI, cloud computing and automation rapidly grow. Submitters to this Briefing pointed to the global growth in demand for datacentres, and suggested that with long-term planning, including through increased renewable energy supply, New Zealand could become a global data infrastructure partner, attracting FDI and improving our international connectedness.

New Zealand is currently facing pressing energy supply challenges and may face difficult choices in selecting the appropriate technologies to meet current and future energy needs. The energy transition pathway ahead is unlikely to be straightforward and could lead to disruptions to existing patterns of activity which will demand a considered approach.

New Zealand's emissions reduction pathway will change our pattern of economic activity. The output of some sectors will increase, and others decrease, with the distribution of changes impacted by adopted policies. Our distinctive geography, economy and environmental ecosystems create vulnerabilities to sea level rise, coastal erosion and extreme weather events. Economic challenges from changing weather patterns will be particularly pronounced for primary industries. There will however be new opportunities for growing crops in new areas, and potentially more productive yields for some sectors.

The overall impact will depend on the severity of warming and the effectiveness of New Zealand's adaptation efforts to minimise impacts and unlock climate-related opportunities. Along with actions we take domestically, New Zealand is also committed to building Pacific resilience to the impacts of climate change. Climate related events in other countries are also likely to impact our productivity performance through disruptions to regional or global supply chains, migration and financial flows.

Insight: A proactive and planned climate response and energy transition will involve short-term adjustment costs for firms and workers, but over time can unlock significant productivity gains through innovation, efficiency and resilience.

A demographic transition – population growth in emerging economies, alongside ageing and shrinking populations in many developed economies

Demographic shifts will redistribute economic weight across the globe and influence relative productivity performance between developed and developing economies. The developing world generally will experience a positive 'workforce demographic dividend' - a growing percentage of the working age population contributing to economic growth and productivity.

In contrast, the developed world, and a small number of developing countries such as China, will see a growing 'dependency ratio' through its aging population, weighing on economic growth and relative productivity performance. This trend is happening in New Zealand; there is now four working age people per retiree, and this is projected to fall to just two by 2065.[31]

Some developed economies including Japan are already experiencing a shrinking population, while others will soon share this population trajectory. The EU's population for example is forecast to peak in 2026.

> Around half of the total projected population growth out to 2050 is expected to occur in just eight countries: Democratic Republic of Congo, Egypt, Ethiopia, India, Nigeria, Pakistan, Philippines and Tanzania. Mirroring these population dynamics, economic weight is shifting to the largest emerging economies. China, India, Brazil, Russia, Indonesia, Mexico and Türkiye are expected to overtake the G7 in economic size in the 2030s.[32]

Global demographic shifts will influence New Zealand's productivity through impacting global flows of goods and services, capital, ideas and people. New Zealand's current profile of international connections indicates a strong reliance on countries and regions that are forecast to have aging populations in the coming years, and relatively weaker connections to regions anticipated to see increases in their working age population.

Global population dynamics point to opportunities for New Zealand with economies in ASEAN, South Asia and Africa, including as a means for our trade and investment mix to evolve and grow. New Zealand's similar demographic trends to other advanced economies also create opportunities to collaborate on boosting productivity amid an aging population. There is also opportunity to leverage our growing ethnic labour force and diverse business owners as a productivity enabler and connector to global markets. Ethnic communities contributed $87 billion to GDP in 2023, up from $64 billion in 2021, and research shows their strengths in international trade and innovation.[33] Closing pay and opportunity gaps could unlock billions in productivity gains and accelerate growth in high-value sectors.

New Zealand's increasing ethnic diversity, including its fast-growing Asian community, help to build breadth and depth in our international connections. Submitters to this Briefing pointed to growing New Zealand's intercultural skills, cultural intelligence and cross-cultural capabilities as important productivity enablers.

Insight: Shifting global demographics will impact economies and markets, with implications for international connections, trade and productivity performance.

5. Contemporary economic development and a policy framework

As outlined in Section 4, global shifts are creating a complex mix of opportunities and challenges for governments aiming to lift productivity. In response, many governments are adopting contemporary approaches to economic development that enhance competitiveness and build new capabilities while also addressing the risks and opportunities of global change.[34] [35] These changes are reshaping how productivity is pursued.

Modern strategies go beyond traditional models, focusing not just on improving efficiency in existing industries, but also on diversifying into more knowledge-intensive and technologically-driven sectors with higher productivity potential. These choices, particularly related to economic development and international trade, are the focus of this section.

Building capabilities for contemporary economic development

Modern economic development strategies recognise that lifting productivity requires a multi-pronged, capability-focused approach. This involves combining strong horizontal policy settings, such as sound macroeconomic management, open trade, robust institutions and quality infrastructure, with targeted (vertical) interventions that enable the growth of emerging, high productivity industries and activities.[36]

This combined approach includes:

- Maintaining a stable, enabling environment for investment, innovation and competition (horizontal settings).
- Improving efficiency across industry value chains through innovation and technology.
- Investing in new capabilities through targeted policies (vertical levers) to help knowledge-intensive and high-tech firms and industries commercialise, scale and compete globally.

These approaches draw on economic fields of study such as innovation studies, complexity economics and the endogenous growth theory, which view economies as dynamic systems that evolve through feedback, learning, and institutional adaptation. A key concept is path dependence; countries are more likely to succeed by expanding into industries adjacent to their existing strengths.[37]

At the firm level, effective leadership and dynamic capabilities allow for the learning and adaptation to create and capture value.[38] [47] Boards play an important role in enabling these capabilities, fostering innovation, and setting a firm's long-term purpose and strategy for productivity.

Several contemporary insights about capability are particularly relevant for New Zealand:

- The absence of essential public inputs – such as infrastructure, research, skills and robust institutions – can constrain productivity, not only in emerging sectors or technologies like AI, but also in areas where New Zealand maintains established comparative advantages.[39]

- Industrial clusters and agglomeration effects are critical for knowledge-intensive industries, which benefit from proximity, talent pooling and rapid exchange of ideas. Place-based strategies that leverage regional strengths and address local constraints can unlock latent potential.
- Innovation is a systemic phenomenon, occurring across all sectors of the economy. In the context of New Zealand, it is likely to be most effective when supported by consistent government coordination and a long-term strategic approach.
- The economy and government should be understood as interdependent systems, and building capability between them requires time, strategic coordination and enduring commitment.
- Key capabilities include the ability to learn from experience, maintain institutional memory, cultivate social and creative skills and deploy both soft and hard powers to facilitate the diffusion of innovation. Reliable, long-term commitment enables collective action and sustained progress.

Unlike the centrally planned models of the past, contemporary economic and industry development strategies are designed to be adaptive and responsive to market signals. Governments act as enablers, creating the conditions for firms, entrepreneurs and industries to discover and pursue new opportunities.

In this model, markets operate through experimentation and learning, and a diverse capability base enhances resilience. While governments do not control all the levers for improving productivity, policy choices that leverage and extend capabilities can make a significant difference.

Approaches in small, advanced economies: why openness matters

Openness and a robust and respected multilateral rules-based trading system would be ideal. Of course, international reality is much more complex. Traditional protectionist industrial policy has made a comeback in recent times, particularly in larger economies in response to geopolitical tensions, supply chain vulnerabilities, green transitions and digital transformation. In contrast, small advanced economies (SAEs) like New Zealand benefit more from an open, rules-based multilateral trading system.

For this reason, traditional instruments, particularly firm-level subsidies, are rarely likely to form part of a sound economic policy framework for SAEs. Given size and lack of diversity in small economies, subsidies can act to distort domestic markets, preventing efficient economic outcomes by diverting resources from more productive sectors to less productive ones that may ultimately hinder longer term growth.

Moreover, direct government support, can come with a significant price tag and difficult and often poor policy choices. The fiscal costs of industrial policies must be financed via higher taxation, by cuts in government spending in other areas or borrowing from future generations. These trade-offs are more acute in small economies compared to larger ones, as larger countries have deeper fiscal pockets and greater domestic economic diversification.

On top of fiscal implications, sector-specific subsidies can also negatively affect producers in other countries, distorting international markets. This can lead to wasteful and harmful subsidy races as other governments respond in kind. This is an environment where small economies cannot compete relative to larger economies in distorted global markets.

Because of the importance that open markets have for the long-term prosperity of SAEs, any approaches to economic development need to ensure that they do not undermine well-functioning global markets and rules-based trade. SAEs are therefore less likely to pursue or benefit from traditional protectionist industrial policy and instead are more likely to apply contemporary approaches that reflect their structural characteristics and constraints.

Approaches grounded in openness, adaptability and capability development offer a more effective and sustainable path to long-term productivity and competitiveness. By focusing on building capabilities, economies can enhance both their productivity and resilience over time.

Insight: Productivity growth is supported by a mix of complementary levers and sustained policy frameworks and settings. This involves maintaining a stable and enabling environment, improving efficiency across existing value chains, and investing in the bespoke capabilities needed for new industries to thrive.

A policy framework for productivity

MBIE and MFAT have developed a framework (Figure 5, following page) to help articulate the range of horizontal and vertical levers that can be applied to support productivity in parts of the economy, and the evidence-based strategic approach that should inform these choices. The framework draws on the work of the OECD and the approaches set out above to enable contemporary, deliberate and evidence-based policy approaches for industrial or economic policy initiatives.[35 40 41]

As well as showing a way of thinking about policy choices, the framework is also intended to signal the capabilities and processes required to do this well. Identifying ways to enhance productivity is a complex undertaking. It requires depth of expertise in government, informed by and coordinated with the wider economy, leading to a rich understanding of what is occurring in markets, possible future paths and the role of government.

The framework focuses on the policy design stages. Other components of the policy cycle such as implementation, monitoring and evaluation are not a focus of the framework but are important channels of information to inform policy design about impacts and effectiveness. These are aspects that could be developed in any future work in this area.

Figure 5: Policy settings for productivity – a framework for identifying the mix of levers to enhance productivity potential in the economy

Government economic goals	Growth	Security/Resilience	Other, eg sustainability, inclusiveness
▼▲			
Strategic approach	Opportunities: What or where is the productivity potential?	Dynamics: How can innovation be enabled to realise the opportunity?	Trends: What is the future outlook of challenges and opportunities?
	Type: Sectoral • Place-based • Technology • Mission-oriented		
▼▲			
Horizontal and vertical levers	Domestic		International
	Horizontal / Foundational - the 'must haves'	Vertical / Targeted - choices about which and how	Mixed levers
Choice and mix of levers are informed by government economic goals and strategic approach. ▼ Feedback from implementation allows adaptation of approach. ▲ Levers listed here are examples only.	• Macroeconomic • Tax settings, incentives, savings • Regulations, eg competition, finance • Institutions, governance • Infrastructure, eg energy, water and digital/ IT • Education and science system • Labour markets	• Direction-setting, coordination • Market intelligence and information • Capital investment, loans, grants • Regional clusters and networks • Innovation and sector R&D • Public procurement • Skills and workforce	• International rules, norms, institutions • Trade and economic agreements • Regional economic integration • Investment attraction • Internationalisation / export capability and capacity • Addressing non-tariff barriers

Use of vertical/targeted levers can be:
Strategic: Government invests significantly with coordinated, long-term vision, eg public-private partnerships, investment attraction and skills development.
Supportive: Government provides targeted policies to catalyse industry development.
Facilitative: Government creates enabling conditions with minimal direct investment, eg convening, regulatory reform and information sharing.
Relatedly, vertical policies can also be categorised as a hierarchy or a ladder, typically with facilitative approaches as first considerations, and more active interventions such as subsidies the last consideration.

Explaining each layer of the framework:

Government economic goals

The upper part of the framework sets out the economic goals that a government may have at any time, such as growth, productivity and resilience. These goals set the context for efforts to lift productivity growth and guide the strategic approach and choice of levers. Clearly articulated goals (which can also be expressed as a vision) influence both formal rules and informal norms, shaping how systems operate and fostering behavioural consistency across sectors and over time.[42] [43] This clarity embeds shared values into institutions, aligning incentives, public value spillover and enabling more effective governance and policy implementation.

Strategic approach: opportunities, dynamics, and trends

The green layer of the framework shows the strategic elements that can guide government's role, set out as three dimensions: Opportunities, Dynamics and Trends. It also signals types of strategic approaches: eg sectoral, place-based, technology and mission-oriented. Strategic approaches frequently combine these types. The table below indicates the information sources, processes and questions through which a strategic approach can be developed.

Opportunities: What or where is the productivity potential?	Dynamics: How can innovation be enabled to realise the opportunity?	Trends: What is the future outlook of challenges and opportunities?
Informed through: Regular, granular market engagement and analysis, eg on firm formation, export growth, investment behaviour and demand trends, to identify where the market is signalling growth opportunities. Trade data analysis, eg revealed comparative advantage analysis to identify economic or product complexity and diversification opportunities. **Example questions:** What sectors or activities are high value, R&D and capital-intensive, and developing complex products and services? Which region/s have a supportive base of skills, suppliers, or natural resources for this activity? Do we have advantages or capabilities (eg, the requisite industrial base) that can be leveraged for growth? Is there global demand with a large or growing market? Is the New Zealand market developing through growth in local and foreign investment? Can this sector's knowledge be digitised and scaled globally?	**Informed through:** Systematic gathering of industry innovation processes, sectoral case studies, global industry dynamics and international comparisons. Engagement with business, sectors, regional development agencies, policy and science communities, through roundtables or workshops. Systems analysis. **Example questions:** What do industries, emerging or mature, need to enable innovation that is internationally competitive, eg are there missing inputs, supply chain gaps, bespoke regulations, international agreements, market access? What can be leveraged to drive innovation eg technology, capabilities of private and government sector, spillovers, international connections? What strategic investment partnerships are possible, eg with iwi, Māori trusts and incorporations? What skills are needed eg commercialisation capability, opportunity in particular demographic groups, eg young people, Pacific peoples, ethnic communities, to utilise or develop skills?	**Informed through:** Strategy and insights activities, including horizon scanning, scenario development and planning, futures research. Broad and diverse information sources and relationships with actors across economic system. **Example questions:** What is occurring or may occur in the global/domestic environment over the next 5 to 10 years in terms of geopolitics, technological developments, energy transitions and emerging areas of economic advantage and risk, that should inform policy? What are the important areas of uncertainty? What are possible disruptions or wildcards on the horizon? Is the sectoral (or other) opportunity aligned with emerging demand or problems that need to be solved? How can long-term approaches be sustained, eg through partnerships, institutions, investments?

Strategic assessment relies on strong information flows: from granular market intelligence, to emerging technologies, to high level insights. These identify where momentum is building, opportunities are ready, and where targeted interventions could unlock further growth. They can also identify where there are long term capabilities or institutions that should be sustained and improved. As no single actor in the economy has complete knowledge (particularly not government), the primary role of the government is to enable discovery, not dictate direction or 'pick winners'. Discovery is then a collective process primarily about answering the question: what can New Zealand produce that the world wants at a price that the world will pay?

In submissions to this Briefing, we heard that New Zealand does not carry out this function well. Capability is limited and we lack suitable institutional arrangements that can help to create effective and durable economic approaches.

Horizontal and vertical levers are complementary tools for productivity

The lower part of the framework (Figure 5) displays examples of both horizontal and vertical levers. Horizontal levers, such as sound regulation, competition policy and infrastructure (eg energy, water and information technology, as well as domestic and international transport networks), are widely agreed to be effective and less prone to market distortion or capture.[44] We need to keep working on these.

However, horizontal policies alone may not address sector-specific market failures or support emerging industries.[35] This is because new or emerging industries typically require institutional support and investment in bespoke knowledge and capabilities to gain traction.

Vertical or targeted policies come in a vast range of types, well beyond what may be called sectoral grants or subsidies and include many facilitative and coordinating functions that involve government's 'soft' skills, convening power and ability to influence the leadership and governance in firms that ultimately translates policy into high productivity firm behaviour. A feature of vertical levers is that they can facilitate innovation, including diversification and growth, and support firms to internationalise and scale.

There is more limited and mixed evidence on the effectiveness of targeted policies than there is for horizontal policies. Evidence from overseas studies have indicated that they are more effective for young firms, and for small rather than large firms, and may be particularly effective for technology-intensive exporting sectors, and emission reduction technology development.[35 45]

More recent studies have been able to better account for the multiple rationales and effects of targeted policies, providing a clearer understanding of their impacts. For instance, a 2025 econometric study found that South Korea's targeted manufacturing policies were associated with positive effects on productivity, learning by doing, spillovers and downstream industries.[46]

Choices about levers can be informed by the strategic assessment outlined above, as well as evidence about the impacts and performance of policies from monitoring and evaluation activities. Horizontal levers may need changes to address weaknesses in framework conditions. Vertical or targeted levers may be subject to more choices about how they are applied, for example, what mix of levers, and how active a role for government.

Insight: Both horizontal and targeted vertical levers have roles with productivity growth. Targeted policies require careful design to avoid unintended consequences and ensure alignment with trade commitments.

Addressing market and coordination failures to unlock innovation

Market failures, especially in smaller, geographically dispersed economies like New Zealand, can hinder innovation by limiting access to commercialisation infrastructure, market information and industrial clusters. These challenges are compounded by coordination failures, such as misalignment between education and industry or weak collaboration between firms and research institutions, that often require government intervention.

While public investment in R&D is important, its success depends in part on its scale (ie the quantum of funding) and its integration with complementary assets like capital, manufacturing processes, and regulatory expertise.[47] Support for commercialisation capability and capacity can help turn R&D outcomes into market-ready products and scalable businesses. Innovation thrives when it builds on existing strengths, an approach known as development through adjacencies, which reduces risk and leverages shared infrastructure. Global evidence shows that coherent, well-coordinated policy is essential to overcoming productivity challenges, whereas fragmented approaches can entrench inefficiencies.[48]

Insight: Development through adjacencies reduces risk and can leverage shared knowledge, infrastructure, or skills. Clear, coordinated policies are essential to avoid locking in inefficiencies.

Managing risks and building resilience

Productivity-enhancing policies play a critical role in shaping economic resilience. Horizontal levers such as sound macroeconomic settings, open trade and strong institutions provide stability and adaptability, while targeted interventions can address specific vulnerabilities in areas like energy security, supply chains and digital connectivity.[35] [49] [50] The Treasury's 2025 Long-term Insights Briefing explored the role of fiscal policy to help manage economic shocks and cycles and suggested New Zealand maintain policy settings that help keep the economy flexible and adaptable to change.[51] For New Zealand, geographic isolation amplifies these challenges, making the strategic use of targeted levers particularly important. In a changing world context, a diverse range of capabilities also provides a reserve to respond to new or unexpected situations.

A resilient economy requires government to take a forward-looking approach – one that can anticipate and prepare for structural changes, including those driven by climate risks.[49] Maintaining this future orientation has proven challenging for New Zealand. When policy settings are fragmented or inconsistent, they risk reinforcing inefficiencies and obstructing transformative change. To support resilience and sustained productivity growth, policy must be coherent, adaptive and strategically aligned with long-term objectives.

However, the use of a wide range of levers increases implementation complexity and the risk of unintended consequences. In assessing the appropriateness of policy tools, policy makers also

need to be aware of possible unintended negative impacts. These include curbing domestic competition, disincentivising innovation, increasing protectionism and reducing contestability of markets, especially if they favour incumbents.

Free trade and open international markets have been key drivers of New Zealand's economic growth and resilience over recent decades. The use of targeted levers needs to be consistent with New Zealand's legal commitments in the WTO and through other trade agreements. Some kinds of industrial policy interventions can be enhanced by international cooperation to maximise their benefits. This can include international regulatory cooperation to promote interoperability of standards, or trade policy negotiations to mitigate distortive beggar-thy-neighbour policies.

International levers are integral to productivity performance

Improving an economy's international connectivity, including its trade and investment flows, is a key enabler for productivity performance. International trade provides static productivity gains by enabling firms to access larger higher value markets as well as lower-cost inputs. More importantly, international trade offers dynamic productivity gains, as firms reinvest profits into innovation, scale up production and increase efficiencies, adopt new technologies and techniques and build resilience through global competition and foreign investment. In this way, international connectivity becomes innovation connectivity.

Levers available to governments to enhance trade and international connectivity include support for international rules, norms and institutions, the negotiation of trade and economic agreements (including those that deepen regional economic integration), active economic diplomacy, support for firms' internationalisation and export capability and capacity, removal of non-tariff barriers and investment attraction. The use of these levers improves predictability through clear and enforceable rules, giving businesses the confidence to invest and trade internationally. It also creates opportunities that might not otherwise be available or visible for businesses. For SAEs, the first best lever has been a well-functioning international rules-based trading system, through the WTO, that provides certainty, a level of transparency about access levels and a dispute settlement function.

The disintegration and fragmentation of the rules-based trading system over recent years, and the disabling of the WTO dispute settlement function, has led to an increased emphasis and reliance on the negotiation of trade rules through bilateral, regional and plurilateral FTAs. These include innovative agreements amongst smaller groups of likeminded countries that respond to emerging global issues and trends (discussed in Section 4) including digital trade[52] and the interrelationship of trade, climate change and sustainability[53], as well as opportunities in indigenous trade.[16] The broadening of FTA networks across a wide range of partners can also position SAEs to benefit from new and growing market opportunities that arise from demographic shifts. It also increases export resilience through market diversification and optionality for businesses at times of growing uncertainty and disruption in global markets.

Leveraging trade agreements for deeper economic integration

FTAs tend to remove nearly all market access barriers between the parties, such as restrictions on market entry, tariffs and quotas, across all goods and services trade. Some but not all agreements

also establish a base level of regulatory alignment and cooperation between the parties. Agreements that deepen economic integration between countries extend this cooperation, placing emphasis on coordination, alignment and/or mutual recognition of regulations, standards and qualifications to facilitate the free flow of goods, services, capital and labour across borders.

New Zealand can drive productivity growth by combining our export focus with a global development partnership mindset – actively co-developing solutions with international collaborators, welcoming scientific, corporate and investment partners into our ecosystem, and leveraging our geography, capabilities and trusted brand to accelerate innovation pathways, validation and scaling for shared gains.

Economic gains from deeper integration tend to be weighted towards more complex, higher productivity sectors, as these sectors generally face higher regulatory and behind-the-border hurdles. Deeper economic integration, including at a regional level, therefore enables expansion and innovation in high productivity sectors by removing non-tariff barriers, increasing the flow of information and ideas, and accessing a wider set of economic capabilities. It also enhances access to a wider variety of imports, attracts investment and facilitates the movement of skilled professionals. Submitters to this Briefing pointed to opportunities from deeper integration with innovative, knowledge-intensive economies in Asia, Europe and the Americas that could draw on complementary capabilities and strengths.

For productivity benefits to accrue from trade and economic agreements, these should be well utilised and leveraged by both government and business. This may involve use of dispute settlement mechanisms to enforce rights under an agreement, as well as promotional work to ensure businesses are fully utilising tariff preferences and other benefits under an agreement. It also means regular reviews and re-negotiation of these agreements to ensure they stay current and relevant to New Zealand exporters.

Trade agreements need to be seen as part of a deliberate strategy to strengthen and deepen New Zealand's international connectivity. To this end, the focus of work needs to be not only on negotiating agreements, but also on ensuring their effective implementation, including regular reviews to modernise the agreements and meet 'best practice' expectations. Regulatory coherence and deepening connectivity through strategic diplomacy (including areas like science diplomacy) are therefore key tools for unlocking global opportunities. SAE governments also place emphasis on active economic and trade diplomacy, which often occurs within the frameworks established by trade and economic agreements and covers activities such as sharing of market intelligence with business, support for firms' internationalisation and export capability and investment attraction.

Insight: Economic integration and regulatory alignment are not just trade enablers, they are strategic tools for boosting innovation, competitiveness and resilience.

Modern economic approaches and trade policy are increasingly interdependent and mutually reinforcing

In a challenging and rapidly changing global environment, New Zealand's trade policy must continue to evolve to deliver sustained long-term productivity gains. Relying on traditional trade

policy approaches is no longer sufficient and has not been for some time. The likelihood of securing significant new trade agreements is diminishing, and global dynamics are shifting.

New Zealand can adapt by improving the efficiency and leveraging of existing FTAs and seek to deepen and widen these agreements into 'non-classical' trade policy elements such as business law, competition policy, qualifications recognition and mutual recognition, and even adoption of standards, where appropriate.

In short, trade agreements need to move beyond 'at-the-border elements' to 'behind-the-border' elements. To this end, policy makers should explore innovative trade policy tools. Stronger links to firms' dynamic capabilities – enabling them to adapt strategy and production – will be essential to help businesses respond to competitive pressures, seize opportunities to create and capture value and sustain productivity growth.

Governments worldwide are increasingly aligning industrial strategy with trade policy and diplomatic efforts to strengthen both domestic growth and global positioning. Through focus in key sectors, countries aim to build competitive advantages that support exports and attract international investment. This can include areas like market intelligence and cross-cultural capability, particularly in key regions of opportunity. At the same time, trade policy leverages these strengths to open markets, negotiate favourable terms and build strategic partnerships. OECD analysis shows that aligning domestic regulations with international standards enhances competitiveness and strengthens innovation ecosystems.[54]

For a goal of productivity growth, the concept of value is pivotal to this alignment: trade and other international activities are critical to discovering what and where outputs are valued while domestic policies then enable New Zealand firms to create and capture that value to lift overall productivity. Multi-track diplomacy also plays a crucial role in shaping global standards, managing economic risks and fostering trust. This integrated approach reflects a broader shift in economic policymaking, where domestic development and international engagement are seen as mutually reinforcing tools for national resilience and influence.

Insight: Domestic economic development policies and international trade policies should be coordinated, aligned and mutually reinforcing to best capture opportunities for value creation and productivity growth.

6. Insights from small, advanced economies – case studies

Governments around the world are renewing their focus on targeted or vertical policy levers to respond to strategic imperatives such as boosting productivity and competitiveness, strengthening national security and advancing the energy transition. While this shift is gaining prominence in larger economies, many SAEs have long employed vertical policies as a strategic tool for industry and economic development.

Context matters. For New Zealand, the challenge is not just to deploy these levers effectively, but to tailor them to fit our unique economic structure, institutional settings, and resource base.

As a small, open economy, New Zealand faces distinct constraints and opportunities. This makes comparisons with other SAEs particularly valuable; not to replicate their models, but to understand what is possible and to reflect on options and choices that may be relevant to our interests. Small economies are inherently specialised; they cannot do everything and must prioritise. New Zealand often spreads its efforts across many small-scale initiatives – this has been described as a 'sub-therapeutic dose' approach that can lack the scale, coordination, and ambition needed to deliver transformational change.[7] [55]

Countries like Denmark, Finland, Ireland and Singapore provide illustrations of how the strategic use of targeted policies can complement broad horizontal settings to accelerate innovation, enable knowledge diffusion and build capabilities across the economy. This can enable economies to develop by building on existing strengths and branching into adjacent and related industries to lift the level of productivity. A key insight is that each of these SAEs have applied targeted policies according to their different circumstances, locations, factor conditions, cultural values and aspirations. There is no generic prescription.

These SAEs have over time become more diversified and export more complex products. Over the past 15 years, Denmark has introduced 14 new export products, Singapore 12, and Ireland seven. New Zealand has diversified into only two.[56]

This section, drawing on a range of SAE analyses, explores the approaches of these four countries as case studies – identifying strategic goals, use of policy levers and examples of how these approaches have impacted productivity in each economy.[c] A common feature across the economies studied is their deep economic integration into regional markets (eg the European Union, or ASEAN), at a greater scale than New Zealand's only comparable model, the Single Economic Market (SEM) with Australia.

The section concludes with a set of insights that we think can inform New Zealand's efforts to accelerate the growth of high productivity activities.

[c] Including analysis for the Former Productivity Commission 'Frontier Firms' report.[55]

6.1 Denmark

Government economic goals

Denmark's economic strategy has undergone a significant transformation, from a passive industrial policy to a dynamic, systems-based approach that leverages its EU membership and actively fosters high productivity industries and firms. This evolution is anchored in three strategic pillars: green transition, digitalisation and innovation, and supported by national frameworks like the Recovery and Resilience Plan and sectoral roadmaps.

Strategic approach: opportunities, dynamics, and trends

Opportunities: What or where is the productivity potential?	Dynamics: How can innovation be enabled to realise the opportunity?	Trends: What is the future outlook of challenges and opportunities?
Traditional agriculture industry developed into bioenergy, agritech and food-tech sectors. Denmark also built on strengths in shipping, pharma and renewable energy. Regional clusters in clean tech and advanced manufacturing were leveraged for green transition and export growth.	Emerging industries like carbon capture, biosolutions and circular economy needed bespoke regulation, skilled labour and international market access. Innovation was driven by cluster organisations and Business Lighthouses, with spillovers into SMEs and regional hubs.	Climate change, EU green transition and digitalisation are key drivers. Uncertainty around energy security and global supply chains reinforced Denmark's focus on sustainability and resilience. Green and digital ambitions also face challenges, including balancing rapid innovation with social and regional equity and skills gaps.

Choice of levers to enable productivity growth

Domestic: Denmark supports productivity growth through a strategic mix of innovation funds, SME programmes and cluster organisations. It builds deep ecosystems via Business Lighthouses (regional clusters) and mission-oriented innovation, while regional Business Hubs offer flexible support. Denmark's 'triple helix' model – linking government, industry and academia – is made possible by its strong public investment in education and research. Anchored in strengths like renewable energy, life sciences and advanced manufacturing, green clusters and CO_2 initiatives boost competitiveness. Denmark prioritises areas with global relevance and builds clusters to achieve scale and resilience, including across borders – eg the strategic, long-term investment in the Øresund bridge (with Sweden) enabled a life-sciences 'Medicon valley' cluster to emerge.

International: Denmark is expanding its global footprint through a new international strategy that integrates trade, foreign policy and diplomacy. The country's sustained productivity growth has been closely tied to its integration with the broader EU economy, benefiting from regional trade, a vast consumer market, innovation networks and structural reforms supported through EU frameworks. As EU Council President in 2025, Denmark is prioritising competitiveness and green transition, positioning itself to influence regional trade and productivity agendas.

Firm-level example – Ørsted (CleanTech): Denmark's Innovation Fund supported Ørsted's transition from fossil fuels to global leadership in offshore wind through R&D grants and university partnerships. Public-private ownership and collaboration enabled rapid technology development and international scalability, supporting economic and environmental resilience.

Denmark's deliberate use of 'triple helix' collaboration and cluster-based policy levers are examples for New Zealand. These are focused on areas of comparative advantage like agritech and sustainable food and supported by regional hubs and coordinated investment to boost productivity and global competitiveness.

6.2 Finland

Government economic goals

Finland has transformed its economy from one dominated by forestry, agriculture and fisheries to becoming a manufacturing and technology leader. It has pursued a long-term strategy focused on building a knowledge-based economy through sustained investment in R&D, innovation, and human capital, and leveraging its EU membership. After setbacks in the mid-2010s, it recommitted to innovation-led growth, with a national roadmap for research, development and innovation and a mission-based approach to economic transformation.

Strategic approach: opportunities, dynamics, and trends

Opportunities: What or where is the productivity potential?	Dynamics: How can innovation be enabled to realise the opportunity?	Trends: What is the future outlook of challenges and opportunities?
Leveraged its strong ICT and engineering base to expand into adjacent sectors like AI, robotics and clean energy. Regional clusters in digital manufacturing and sustainable forestry provided platforms for innovation.	Emerging industries required international competitiveness in AI, circular economy, and offshore wind. Gaps included skills, R&D investment and international partnerships. Innovation was driven by public-private ecosystems (eg Growth Engines), with spillovers into SMEs and regional economies.	Global technological shifts (AI, green tech), EU climate goals and post-Nokia economic restructuring shaped policy. Uncertainty around global competitiveness and talent retention informed Finland's recommitment to innovation-led growth.

Choice of levers to enable productivity growth

Domestic: Finland's small size and peripheral location necessitated a shift from commodity exports to knowledge-intensive industries. Key levers include R&D investment (~3 per cent of GDP, with a target of 4 per cent by 2030), public-private partnerships and targeted support for ecosystems through policies such as Growth Engines. Finland also uses challenge-based funding and strategic centres for science and technology to drive disruptive innovation, built on a strong foundation of public investment in education and research. Finland's forestry sector exemplifies how policy levers can be strategically applied to transform a traditional resource industry into a globally competitive tech and bioeconomy leader.

International: Finland's internationalisation strategy integrates trade, innovation and diplomacy to help firms expand globally, and focuses on matching Finnish capabilities with global opportunities, especially in sustainability and competitiveness. Finland's productivity trajectory reflects its integration into the EU economy and vast consumer market, with shared policy frameworks and structural reforms shaping its recovery and long-term competitiveness.

Firm-level example – Nokia (Tech/Comm): Finland's strong R&D and public-private partnerships helped Nokia evolve from a forestry pulp company into a global tech leader. After its handset decline, Nokia pivoted to 5G infrastructure, backed by government innovation funding, EU-aligned policy and early digitalisation and AI strategies. This transition also seeded Finland's startup ecosystem, with ex-Nokia talent founding new tech firms and capabilities.

New Zealand can learn from Finland's deliberate investment in R&D, education and innovation ecosystems, especially in transitioning primary sectors and developing weightless exports. A mission-led approach and strong public-private coordination has helped build frontier firms. Finland's innovation-led strategy also faces challenges similar to New Zealand, including talent retention, scaling frontier firms, and sustaining global competitiveness.

6.3 Ireland

Government economic goals

Ireland has evolved from an agriculture-based economy into a global hub for technology and pharmaceuticals, marked by the 'Celtic Tiger' era and a strong recovery post the 2008 financial crisis. Strategic, long-term reforms – such as reducing corporate tax rates, actively attracting US tech FDI and leveraging EU membership – have attracted major global firms, positioning Ireland as a leading tech exporter with a skilled workforce and a preferred European base. Now, Ireland is shifting focus toward strengthening domestic capabilities and reducing reliance on foreign investment to sustain growth in high-potential export sectors. Political stability has supported consistent economic policy and planning throughout this transformation.

Strategic approach: opportunities, dynamics, and trends		
Opportunities: What or where is the productivity potential?	Dynamics: How can innovation be enabled to realise the opportunity?	Trends: What is the future outlook of challenges or opportunities?
Ireland expanded from FDI-led manufacturing into high value adjacencies like medtech, fintech and food innovation. Regional specialisations in dairy, meat and digital services were scaled through national networks.	Emerging industries needed stronger local R&D, talent pipelines and diversification of export markets. Innovation was supported through Technology Gateways and High Potential Start-Up programmes, with spillovers into local supply chains and research institutions.	Global tax reform, Brexit, and shifting FDI patterns prompted Ireland to rebalance toward domestic enterprise growth. Uncertainty around global trade and talent mobility shaped its diversification strategy.

Choice of levers to enable productivity growth

Domestic: Ireland uses a wide range of facilitative horizontal settings and productivity-enhancing tools, including over 170 support schemes such as R&D tax credits, innovation vouchers and tailored support for high-potential start-ups. The scale of investment in Ireland is significant (their Industrial Development Authority annual budget is NZ$345 million). Economic agencies offer grants and equity investments, as well as low-cost credit to SMEs. Ireland supports 45 industry clusters leveraging regional innovation strengths. Institutions like the Health Innovation Hub and Innovative Partnerships Programme foster collaboration between industry, research and healthcare. Targeted support has driven growth in sectors like food processing and pharmaceuticals, backed by research linkages and innovation tax incentives.

International: Ireland's Global Ireland 2025 and Action Plan on Market Diversification expand trade resilience and global reach, leveraging diplomatic missions in over 100 cities, and a large, influential diaspora network, to promote Ireland as the English-speaking, common-law gateway to the EU. EU membership has supported Ireland's productivity growth, enabling access to the Single Market and aiding economic resilience through coordinated fiscal and trade policies.

Firm-level example – Medronic (FDI and Life Sciences): Ireland's favourable corporate tax regime and targeted FDI incentives attracted Medtronic to establish a major innovation hub in Galway. Government focus on multinational engagement, skilled talent and EU market access enabled the firm to scale R&D and export globally.

Ireland's experience in aligning facilitative horizontal settings (eg tax) along with a purposeful, targeted FDI approach and deeper regional integration through the EU has transformed Ireland's economy. More recent experience in scaling local firms, building innovation infrastructure and fostering regional clusters offers valuable productivity-enhancing lessons for New Zealand.

6.4 Singapore

Government economic goals

Motivated by resource constraints, trade dependence and the imperative of national resilience and security, Singapore has evolved from a low productivity entrepôt trade hub in the 1960s, into a high-tech, knowledge-based economy with globally competitive clusters in finance, logistics and advanced manufacturing. This shift was driven by strong long-term strategic planning focused on export-led industrialisation, attracting foreign talent and capital, and later, innovation-focused policies, supported by strong institutions and coordinated efforts between government, employers and unions. Singapore's long-term economic strategy has also benefited from its sustained political stability and leadership continuity, and ASEAN positioning.

Strategic approach: opportunities, dynamics, and trends

Opportunities: What or where is the productivity potential?	Dynamics: How can innovation be enabled to realise the opportunity?	Trends: What is the future outlook of challenges and opportunities?
Singapore built on its logistics and electronics base to expand into advanced manufacturing, precision engineering and digital services. Place-based capabilities were concentrated in innovation districts and industrial parks.	Emerging sectors like AI, robotics and green manufacturing needed international standards, talent attraction and regional integration. Innovation was driven by Alliances for Action and transformation maps, with spillovers into SMEs and regional partners.	Geopolitical tensions and supply chain reconfiguration have shaped Singapore's strategic posture. Uncertainty around globalisation and trade fragmentation led to deeper regional engagement. ASEAN digital integration offers new opportunities for innovation and regional collaboration.

Choice of levers to enable productivity growth

Domestic: Singapore supports productivity growth through a strategic mix of levers, including the Economic Development Board, A*STAR (Agency for Science, Technology and Research), targeted R&D incentives, startup and innovation programmes like Startup SG and Alliances for Action, and coordinated digitalisation and talent attraction efforts. It leverages State-Owned Enterprises and Government-Linked Companies in key sectors, while grants such as the Productivity Solutions Grant and Enterprise Development Grant foster local enterprise development. Advanced infrastructure, global partnerships and industry clustering (especially in precision engineering and electronics) enable innovation and attract investment within its compact geography. Recent schemes have focused on re-educating workers for future workforce disruptions, eg AI.

International: Singapore's approach is deeply international in orientation, with regional integration playing an important role in its economic vision. By advancing digital trade and supply chain connectivity through ASEAN agreements Singapore reinforces its position as a key node in global value chains, with proximity to large consumer markets.

Firm-level example – AvePoint (Enterprise software): Singapore's innovation strategy combines active government involvement with targeted investments in strategic sectors like deep tech and enterprise software. AvePoint leveraged this, benefiting from infrastructure, grants and collaboration with A*STAR to establish a regional R&D hub and scale across Asia.

Singapore has taken an enduring, integrated and responsive strategic 'top down' approach to refocus its economy. By combining innovation platforms, challenge-based initiatives, talent attraction and regional partnerships, alongside strategic use of state-linked institutions, they have helped to scale frontier firms and build a more productive economy.

Key insights from SAE case studies

Adopt a coherent, long-term economic approach

The SAEs maintain stable, long-term economic approaches that evolve but remain focused, even across changes of government. These intentionally mobilise resources for productivity and wider public value, including through strong foundational investment in education, skills, capabilities and workforce development, and the use of mission-led and challenge-based innovation policies. They also show how institutional designs, such as the triple helix model, enable enduring collaboration between government, industry, academia and other partners. By contrast, New Zealand's economic policy has often been fragmented and largely agnostic beyond our traditional biological industries, with limited strategic attention to emerging sectors that drive productivity.

Prioritise internationally oriented sectors and clusters

SAEs drive productivity by concentrating on internationally competitive sectors – like Denmark's renewables, Ireland's food and pharma and Singapore's advanced manufacturing – supported by strong ecosystems of firms, talent and research institutions. With exports averaging 59 per cent of GDP in SAEs, New Zealand's share at just under 25 per cent is relatively low. This is compounded by limited FDI flows, which reduce exposure to global innovation frontiers. New Zealand could unlock greater value by facilitating international links and partnerships between our regional clusters and emerging high-potential industries. The case studies illustrate how clusters can thrive when governments invest in shared infrastructure, innovation systems and international partnerships – enabling knowledge spillovers, talent pooling and feedback loops.

Support the growth of large, globally engaged firms

Large firms disproportionately contribute to productivity and internationalisation. Ireland and Singapore have actively scaled domestic firms and attracted FDI to build globally competitive companies. New Zealand's lack of large, internationally engaged firms is partly due to constraints in capital markets, governance structures (especially in cooperatives) and limited incentives for offshore expansion. To address these constraints, policy could support capital access, reform governance models and incentivise offshore growth. This would help build globally competitive firms that can anchor innovation ecosystems and drive export-led growth.

Regional integration, strategic internationalisation, and trade diplomacy

Regional integration plays a critical role – eg Finland, Denmark and Ireland benefit from EU membership, with most trade occurring within the internal market. Over 70 per cent of Singapore's trade is within the Asia Pacific, leveraging regional frameworks to reduce trade friction and compliance costs. Regulatory harmonisation within these blocs supports innovation and global value chain integration. New Zealand can learn from these models by aligning trade and international engagement with domestic economic priorities. Regulatory coherence and strategic diplomacy are key tools for unlocking global opportunities.

7. New Zealand policy settings for productivity growth – case studies

Despite a common perception that New Zealand avoids industry policy, governments have in fact used a mix of horizontal and vertical levers to support productivity growth in key sectors.

This section provides four case studies of areas in which this has been done to illustrate application of the framework introduced in Section 5.

The first three case studies are examples of where New Zealand governments have used vertical levers to support different sectors over time:

- **7.1 Dairy** – selected because this has had a broad range of targeted government interventions over many decades.
- **7.2 Space and advanced aviation** – selected because it is a new and rapidly growing sector where government has played a key facilitative role.
- **7.3 Biomanufacturing** – selected because it is an emerging sector, building on existing capabilities and strengths, where the government to date has played a more limited facilitative role.

These case studies are illustrative only and are not intended to imply that these sectors are exemplars or recommended for government action.

Collectively they show the range of approaches government could adopt when considering the use of targeted interventions. Common themes and key insights of the three sector case studies are then discussed.

The fourth case study (7.4) explores an application of the framework through the **Trans-Tasman Single Economic Market (SEM).** This illustrates a mix of horizontal settings and vertical policies applied jointly with Australia to enhance productivity through deeper international integration. Key insights from this case study are then presented.

7.1 Dairy

- Major New Zealand export sector with enduring comparative advantage.
- Depth of capabilities (eg farming, processing, logistics), enabled through an extensive range of government targeted support over many decades.
- Capabilities that can be leveraged to grow high value adjacent products.

Credit: Shutterstock

Since the late 19th century, successive governments have recognised the importance and future potential of the dairy industry to the New Zealand economy for growth, exports and innovation. They have provided sustained support to develop the sector through investments in infrastructure, research and innovation, enabling international trade and investment and establishing regulatory frameworks. The performance of the dairy industry today is driven by public and private sector efforts, often working collaboratively to improve productivity, maintain competitiveness, respond to global market shifts and address sustainability challenges.

In the early 2000s Government played a pivotal role in restructuring the dairy industry through the Dairy Industry Restructuring Act 2001, which allowed the creation of Fonterra by exempting the merger from the Commerce Act's usual competition rules. New Zealand's dairy industry accounts for about a quarter of the country's exports, and New Zealand is the largest dairy exporter in the world by value.[57] Through this, New Zealand has established an enduring comparative advantage in dairy exports and other related products.

Strategic approach: opportunities, dynamics, and trends		
Opportunities: What or where is the productivity potential?	Dynamics: How can innovation be enabled to realise the opportunity?	Trends: What is the future outlook of challenges and opportunities?
From exporting butter and cheese in the past, New Zealand has developed deep and diverse capabilities in the dairy industry. This has enabled it to expand into high value adjacent products, such as whey protein, lactoferrin and infant formula. This expansion has enabled the development of further adjacent products, for example in biomanufactured products such as dairy-derived bioactives, nutraceuticals and pharmaceuticals (see also 7.3). New Zealand is developing new capabilities in these areas and is experiencing rapid export growth. It has also enabled adjacencies across the supply	New Zealand's dairy industry is built on a network of capabilities including farming, processing, logistics, research and regulation. Capabilities have taken time to develop and indicate the pace of industry change is generally measured in decades. International partnerships connect domestic capabilities to global markets. New Zealand dairy industry has attracted significant global investment. Seven of the top ten global dairy companies have operations in New Zealand.	The dairy industry poses significant environmental challenges. Livestock produce methane which contributes to climate change. Intensive farming leads to nutrient runoff that can pollute waterways. Changes to farming through new technologies and practices are starting to enable fewer environmental impacts, eg through the use of biofertilisers. Advances in precision agriculture, sensor networks and advanced processing tech are expected to drive further yield growth (eg milk per cow). Shifting global demand for sustainable, functional and high value nutrition is accelerating investment in emissions reduction,

chain, eg agritech and farm management systems, logistics and cold chain services.	The cooperative model enables a long-term focus and innovation in member businesses.	bio-based products and adjacent health and nutrition industries.

Choice of levers to enable productivity growth

The table below provides illustrative examples of the sector specific levers (domestic and international) that governments have used to enable the development of the dairy industry. Underpinning these targeted levers are horizontal/foundational settings for the economy, such as macroeconomic stability, tax settings (eg R&D tax incentives), infrastructure, regulations and institutional/governance arrangements and regulations which have been adapted over time in response to changing circumstances. Government's use of international levers incorporates both horizontal (economy-wide) and vertical (sector-specific) elements, hence indicated as 'mixed'.

Domestic Vertical/Targeted	**International** Mixed
Direction-setting, coordination • Ministry for Primary Industries (MPI) • New Zealand Dairy Board (until 2001)	**International rules, norms and institutions** • WTO Agreement on Agriculture • WTO Ministerial Decision on Agricultural Export Competition
Market intelligence and information • Insights work programme by MPI	**Trade and economic agreements** • Free Trade Agreements, eg China, EU, UK, CPTPP • Dispute settlement and enforcement eg Canada dairy CPTPP case
Capital investment, loans, grants • Primary Sector Growth Fund • Sustainable Food and Fibre Futures fund • Primary Growth Partnership fund	**Regional economic integration** • Bilateral and regional agreements, eg SEM, AANZFTA
Innovation and sector R&D • Dairy New Zealand's levy-funded R&D • Riddet Institute • Food Innovation Network	**Internationalisation/export capability and capacity** • Support through NZTE (including sector stories and programmes eg Made with Care)
Regulatory environment • Dairy Industry Act 1892 • Commodity Levies Act 1990 • Dairy Industry Restructuring Act 2001	**Addressing non-tariff barriers** • Addressing international in-market barriers to New Zealand dairy exports (eg infant formula restrictions)
Skills and workforce • Lincoln University and Massey University (eg Agricultural College) • Farm advisory services contracted and delivered by MPI	
Infrastructure • Co-funding for irrigation	
Domestic levers not used with dairy: regional clusters and networks; public procurement	

KEY for government role, indicative only

Strategic: Government invests significantly with coordinated, long-term vision, eg public-private partnerships, investment attraction and skills development.
Supportive: Government provides targeted policies to catalyse industry development.
Facilitative: Government creates enabling conditions with minimal direct investment, eg convening, regulatory reform and information sharing.

7.2 Space and advanced aviation

- An emerging and rapidly growing sector.
- Government has played a critical enabling role to develop the sector by providing a regulatory framework and through continuing to build on international agreements.
- Government plays other facilitative and supportive roles but to a lesser extent compared to other sectors (eg dairy).

Credit: Shutterstock

The Government established the New Zealand Space Agency in April 2016 in response to plans by New Zealand founded company Rocket Lab to locate its launch site in New Zealand. The Outer Space and High-altitude Activities Act 2017 was enacted to establish a comprehensive regulatory framework for space and high-altitude activities in New Zealand, enabling rocket launches. A review of the Act in 2022 found that New Zealand had adopted a permissive but responsible regime, balancing innovation with international compliance and risk management.

In 2024 the Government released the New Zealand Space and Advanced Aviation Strategy, which sets out a mission to double the size of these sectors by 2030. The strategy sets out five objectives focused on developing space capabilities via a national mission, establishing a world-leading regulatory environment, unlocking trade and investment, skills and innovation.

In 2024, the economic contribution of the space sector was estimated at $2.47 billion (0.58 per cent of GDP) and that of advanced aviation was $0.48 billion (0.11 per cent of GDP). New Zealand's space sector grew by 53 per cent in the five years to 2024, a year-on-year growth of 8.9 per cent, outpacing global space sector growth, albeit off a low base.[58d]

Strategic approach: opportunities, dynamics, and trends		
Opportunities: What or where is the productivity potential?	Dynamics: How can innovation be enabled to realise the opportunity?	Trends: What is the future outlook of challenges and opportunities?
The Southern Hemisphere location and geographic isolation is ideal for launches and testing. Rapid growth of the commercial space industry required a regulatory framework to manage space activities safely and responsibly. A large anchor company, Rocket Lab, provided the scale required to enter the international space sector, stimulating activity in advanced aviation and space by an increasing number of players.	Strategic international partnerships and emerging global capability-building in the US and Europe help bolster New Zealand's competitiveness in space and advanced aviation. New Zealand's space sector benefits from flexible enabling regulation, and international partnerships, but faces intense global competition.	Autonomous flight systems, advanced propulsion and satellite miniaturisation are converging, providing strategic opportunities. Reduction in launch costs driving growth in low orbit activities. Growth in satellite deployment driven by satellite communications constellations (eg Starlink) is expected to continue.

[d] There is considerable overlap between space and advanced aviation activities and so some double counting.

Strong existing technical base in aviation, engineering, advanced materials and manufacturing, with Christchurch and Auckland key hubs.	Governance actions through local partnerships (eg Tawapata South Māori agribusiness board and Rocket Lab) have enabled long term approach and innovation-led productivity gains.[59]	Innovation and investment in space capabilities driven by growing demand for advanced aviation R&D and testing sites, dual-use technologies.

Choice of levers to enable productivity growth

The table below provides illustrative examples of the levers governments have used to enable the development of the space and advanced aviation industry. Underpinning these targeted levers are horizontal/foundational settings for the economy, such as macroeconomic stability, tax settings (eg the R&D tax incentive), institutional and governance arrangements, infrastructure and regulations which have been adapted over time in response to changing circumstances. Government's use of international levers incorporates both horizontal (economy-wide) and vertical (sector-specific) elements, hence indicated as 'mixed' in the table below.

Domestic Vertical/Targeted	**International** Mixed
Direction-setting, coordination • Space and Advanced Aviation Strategy	**International rules, norms and institutions** • Active engagement for space and advanced aviation, including through key government-to-government relationships
Market intelligence and information • Innovation for growth: Charting the space and advanced aviation sectors by Deloitte[58] (published by MBIE)	**Bilateral and International Agreements** • Artemis Accords with NASA • Space Framework Agreement with NASA
Innovation and sector R&D • Catalyst Fund support for New Zealand-NASA research partnership in earth observation	**Investment attraction** • Supported through overseas posts and Ministerial visits
Capital investment, loans, grants • Tāwhaki National Aerospace Centre	**Internationalisation/export capability and capacity** • Trade missions • Support through NZTE
Regulatory environment • Outer Space and High-altitude Activities Act 2017	
Infrastructure • Some infrastructure support for Rocket Lab and at Tāwhaki	
Skills and workforce • Scholarships and prizes	
Public procurement • Signalled for space capabilities in the Defence Industry Strategy	
Domestic levers not used for space and advanced aviation: *Regional clusters and networks	

KEY for government role, indicative only

Strategic: Government invests significantly with coordinated, long-term vision, eg public-private partnerships, investment attraction and skills development.
Supportive: Government provides targeted policies to catalyse industry development.
Facilitative: Government creates enabling conditions with minimal direct investment, eg convening, regulatory reform and information sharing.

7.3 Biomanufacturing

- An emerging opportunity for New Zealand, building on strong capabilities in agriculture, forestry, production of food, health products, energy, industrial chemistry and life sciences.
- Government is enabling development of the sector by providing a regulatory framework and research funding.
- Government is less active using other levers.

Biomanufacturing is the use of biological systems, such as plant and animal cells or micro-organisms (eg yeast, bacteria), to produce commercially valuable products, such as pharmaceuticals (eg vaccines), food ingredients (eg enzymes), cosmetics, bioplastics and biofuels. It is sometimes referred to as biotransformation and uses tools of biotechnology and sometimes also biodiscovery to identify compounds with potential.

An emerging sector in New Zealand and internationally, innovation in biomanufacturing is being enabled by developments in both biotechnology and AI. Biomanufacturing has the potential to accelerate productivity growth, drive diversification of products and sectors, plus improve environmental sustainability through substitution of synthetic and fossil-fuel based inputs.

Strategic approach: opportunities, dynamics, and trends		
Opportunities: What or where is the productivity potential?	Dynamics: How can innovation be enabled to realise the opportunity?	Trends: What is the future outlook of challenges and opportunities?
Builds on New Zealand's strong food and fibre sector, which provides source material, and leverages the country's biochemistry, technology and engineering, climate and health sciences research capabilities. Wide ranging consumer products adjacent to food and fibre sector, eg in nutraceuticals, sports nutrition, cosmetics and pharmaceuticals, as well in construction and energy. Regional specialisations are emerging, eg Canterbury (pharmaceuticals), Rotorua/Bay of Plenty (forestry-based biomanufacturing), Waikato (dairy biotech), Nelson (marine bioactives). Opportunities for Māori enterprises utilising Mātauranga Māori and a kaupapa Māori lens.	Strong R&D base with collaborations across Public Research Organisations, universities and industry. Specialisms in synthetic biology, precision fermentation and Ribonucleic Acid (RNA) technologies. Need for pilot scale infrastructure, such as large volume bioreactors, to bridge lab-scale and commercial production. Role for strategic international partnerships, science diplomacy and business to business relationships.	Climate change, consumer trends, food/energy instability are increasing demand for sustainable bioproducts, alternative peptides, enzymes, and biofuels. Convergence with digital (eg AI) and nanotechnologies is shortening development time and enabling advanced ecosystem solutions such as carbon capture, energy reuse and waste management, and personalised therapeutics. Rapid pace of innovation makes it difficult to predict which technologies will be successful.

Choice of levers to enable productivity growth

The table below provides illustrative examples of the levers governments have used to enable the development of the biomanufacturing industry.

Underpinning these targeted levers are horizontal/foundational settings for the economy, such as macroeconomic stability, tax settings (eg the R&D tax incentive), institutional and governance arrangements and capabilities, general science system funding and infrastructure and regulations which have been adapted over time in response to changing circumstances.

Government's use of international levers incorporates both horizontal (economy-wide) and vertical (sector-specific) elements. There are a range of international levers applicable to the emerging biomanufacturing sector (for example, WTO agreements on intellectual property, sanitary and phytosanitary matters, as well as New Zealand's FTA network), however these levers are not deliberately targeted towards supporting the sector.

Domestic Vertical/Targeted	**International** Mixed
Market intelligence and information • Emerging and future platforms in New Zealand's bioeconomy reports by Coriolis[11] (published by MBIE)	**International rules, norms and institutions** • Cartagena Protocol on Biosafety
Innovation and sector R&D • Strategic Science Investment Fund platform for RNA development • Catalyst Fund support for New Zealand-Singapore Future Foods Research Programme	**Addressing non-tariff barriers** • Addressing international in-market barriers to New Zealand biomanufactured exports (eg certification/labelling requirements)
Regulatory environment • Gene Technology Bill	
Domestic levers not used for biomanufacturing: • Direction-setting, coordination • Capital investment, loans, grants • Regional clusters and networks • Skills and workforce • Infrastructure • Public procurement	

KEY for government role, indicative only

Strategic: Government invests significantly with coordinated, long-term vision, eg public-private partnerships, investment attraction and skills development.
Supportive: Government provides targeted policies to catalyse industry development.
Facilitative: Government creates enabling conditions with minimal direct investment, eg convening, regulatory reform and information sharing.

Key insights from the sector case studies

Government's role in enabling sector growth varies across sectors and over time

The sector case studies show that New Zealand has adopted different approaches for these different sectors of the economy in terms of both the breadth and depth of vertical/targeted levers used. In all cases, sectors have been supported by horizontal/foundational levers, which have been adapted over time in response to changing circumstances.

Vertical policies are about providing 'public' inputs that only the government can provide and are specific to the needs of an emergent industry. Often this starts with enabling regulation, but over time as the industry scales this could expand into providing a broader range of bespoke policies such as international agreements, infrastructure investments, R&D programmes, skills training, public procurement and other levers set out in the framework.

Long-term impact and adjacent growth opportunities

The Dairy sector case study suggests that sustained, targeted support over time can help build enduring economic strengths and long-term export value. Through continuous capability development, the sector has maintained global competitiveness as well as unlocked adjacent opportunities (eg biomanufacturing) that extend beyond its traditional boundaries.

The Space and advanced aviation and Biomanufacturing case studies show that government has also applied selected (rather than comprehensive) vertical levers to these emerging industries, in response to entrepreneurial endeavour. This suggests that government support, if required, can scale-up over time as new sectors and opportunities emerge and mature.

Today's performance reflects a history of collaboration between public and private actors, working together to lift productivity, adapt to shifting global markets, and respond to sustainability pressures. This experience may offer insights for how other sectors could evolve, particularly where long-term commitment and cross-sector partnerships are encouraged.

Leveraging existing strengths and capabilities (including place-based)

The case studies show the value of building on existing strengths and capabilities. Natural advantages like geography and climate have enabled the development of the space sector. Unique know-how developed from learning-by-doing over many decades plus new knowledge created through scientific research have supported the dairy sector, and the emergence of biomanufacturing.

The case studies suggest some gaps in New Zealand's place-based and cluster-oriented approaches, especially when compared to SAE peers, though this may reflect our focus on sectors in these case studies rather than a lack of potential. Nascent regional specialisations suggest there is untapped potential to develop these to foster innovation, though dispersion and coordination challenges likely remain.

7.4 Single Economic Market – Trans-Tasman and beyond

- One of New Zealand's most developed and complex trading relationships.
- Built off Closer Economic Relations (CER), deeper integration initially focused on specific sectors before becoming comprehensive in nature.
- The SEM could act as a model of regional economic integration, which could be expanded further into the region.

The Trans-Tasman Single Economic Market (SEM) between New Zealand and Australia is one of the world's most deeply integrated bilateral economic relationships outside a formal political union. Originating from the 1983 Closer Economic Relations (CER) Trade Agreement, the SEM was formally launched in 2004 to reduce border frictions and regulatory complexity. It enables the free movement of people, mutual recognition of qualifications and standards, and coordination in areas beyond traditional trade agreements, such as business and competition law, technical regulations and conformity assessments.

Australia is New Zealand's second-largest trading partner and its largest source of foreign investment. The Trans-Tasman Mutual Recognition Arrangement (TTMRA), a key component of the SEM, allows goods to move and professionals to operate across both countries with minimal regulatory barriers.

Together, these arrangements create a seamless business environment across the Tasman, enabling firms and individuals to treat New Zealand and Australia as a single economic space. This is an advanced model of economic integration that goes beyond trade liberalisation to foster trust, efficiency, productivity and shared opportunity.

Strategic approach: opportunities, dynamics, and trends		
Opportunities: What or where is the productivity potential?	Dynamics: How can innovation be enabled to realise the opportunity?	Trends: What is the future outlook of challenges and opportunities?
The SEM is a core element of New Zealand's international economic strategy, enabling: • Free movement of goods, services, capital and people between New Zealand and Australia. • Mutual recognition of standards and qualifications, reducing compliance costs and improving market access.	The SEM is underpinned by a dense network of institutional and regulatory capabilities which seek to align regulatory approaches across as much of the economy as possible. These mechanisms are supported by strong public-private collaboration, with governments, industry bodies and firms working together to maintain and evolve the SEM.	The SEM is evolving to address modern challenges such as digital trade, climate resilience and regional economic security, eg through work to reduce barriers to collaboration in science, technology and research across the Tasman, including through the Trans-Tasman Innovation Ecosystem (Trans-Tasman Roadmap to 2035).

- A shared business environment, allowing firms to scale across both markets efficiently.

The SEM supports industry-led growth in sectors such as financial services, professional services, education and consumer goods.

The SEM also benefits from deep trade and diplomatic ties, and shared values around non-discrimination, transparency, rule of law and open markets.

Expanding the SEM to include other partners over time could amplify the SEM's economic and strategic value, positioning it as a regional model for economic cooperation and a platform for broader Indo-Pacific integration.

Choice of levers to enable productivity growth

There are a range of targeted levers used for the advancement of the SEM:

- direction-setting, coordination, partnerships, such as the annual Australia New Zealand Leaders' Meeting
- market intelligence and information, such as the Australia New Zealand Leadership Forum
- trade and economic agreements, such as the CER Agreement
- regulatory enablement, such as the TTMRA
- skills, workforce, such as the Trans-Tasman Travel Arrangement
- investment attraction, such as the Protocol on Investment
- public procurement, such as the Australia and New Zealand Government Procurement Arrangement
- infrastructure, such as the Trans-Tasman Seamless Travel Group or work to support Digital Infrastructure for Trade.

The combined application of this group of levers for over two decades represents a 'strategic' government investment with coordinated, long-term vision. Individually, each lever is considered to be 'facilitative', with the government creating enabling conditions with minimal direct investment, eg, convening, regulatory reform and information sharing.

Levers not used with the SEM are: capital investment, loans, grants; regional clusters and networks; innovation support and sector R&D.

The extent of targeted policies, the mechanism by which they are implemented, and the funding applied, varies significantly from country to country. The benchmarking used here indicates 'similar in scale and intent' but not necessarily comparable in the specifics of the policy.

Key insights from the international SEM case study

- The SEM is a vehicle to economically integrate New Zealand with its nearest largest neighbour. This helps to mitigate the disadvantages of New Zealand's geographic distance and small scale, to strengthen internationally connectivity and to lift productivity.

- Historical regulator-to-regulator cooperation within the SEM has delivered substantial productivity benefits, including harmonised standards, reduced business costs, increased labour mobility and enhanced investment flows. However, further integration involves more complex areas, including services and digital trade and potentially sovereignty-sensitive policies.

- Expanding this model to high value, regulation-intensive sectors (eg pharmaceuticals, aerospace and advanced manufacturing) could unlock productivity gains by reducing compliance barriers and enabling more predictable market access.

- The SEM's flexible governance and initially targeted initiatives (eg joint innovation funds and sector-specific pilots), support collaboration in emerging industries and help firms adapt to global shifts. This dual approach strengthens economic resilience and dynamic capability.

- Future expansion to third partners (ie to individual ASEAN members such as Singapore, and then to ASEAN more broadly – see box on next page) could amplify the SEM's impact, embedding New Zealand more firmly into regional supply chains and attracting investment. This would require careful alignment of legal frameworks, standards and regulatory systems, specifically tailored to partners.

Strategic expansion: ASEAN as a potential partner

While the SEM has focused on deepening Trans-Tasman bilateral integration, there is potential to expand it to new partners, with ASEAN emerging as a compelling candidate.

ASEAN is a dynamic and fast-growing region, projected to account for 8 per cent of the global population and 5 per cent of global GDP by 2050. It is progressing towards its own single market vision under the ASEAN Economic Community (AEC) 2045 agenda.

Aligning SEM principles with ASEAN's integration trajectory could create a combined market of over 800 million people, offering significant scale for forward-looking regulatory cooperation in areas such as AI, green economy and fintech.

New Zealand, Australia and ASEAN already share a strong foundation through the AANZFTA, which has recently been upgraded to improve trade in services, e-commerce and reduce non-tariff barriers. However, with 99 per cent of goods already entering duty-free, further gains may depend on deeper integration, particularly in complex services, digital trade and regulatory alignment.

New Zealand and ASEAN (including with individual members) are already engaged in extensive regulatory cooperation, both formally and informally. This includes through provisions in AANZFTA, RCEP, CPTPP, DEPA and our bilateral trade agreements, such as with Singapore and Malaysia, but also through informal regulatory networks. These arrangements demonstrate that regulatory cooperation between New Zealand and ASEAN is already active and could be scaled up through a structured SEM-style framework.

ASEAN is now the destination for nearly 10 per cent of New Zealand's total exports, with growth concentrated in dairy and tourism. To unlock further value in high value services and innovation-driven sectors, a more integrated SEM-style framework could be explored. A SEM incorporating Australia and ASEAN would already cover more than a quarter of New Zealand's exports, with the possibility for accelerated growth.

A SEM-style approach with ASEAN would likely differ from New Zealand's existing SEM with Australia. Its specific components would need to reflect the diverse economic contexts of individual ASEAN members and what the consumers in these markets value. Like the Australian SEM, it could evolve over time. Some members – such as Singapore – may offer particularly promising opportunities to explore an early SEM-style expansion into the region.

This SEM style approach would also position New Zealand to better navigate regional fragmentation, demographic shifts and emerging economic centres in South East Asia.

8. Lifting New Zealand's productivity performance in a changing world: insights and principles

This Briefing has presented analysis and key insights to the question: How can we accelerate the growth of high productivity activities in the New Zealand economy in a changing world?

Every economy is shaped by its history, geography, resources and institutions, but the future global environment adds complexity through technology, interconnected markets and geopolitical shifts. Traditional policy approaches no longer fit a landscape marked by climate pressures, demographic challenges, disruptive technologies, and geopolitical volatility. In a more uncertain global economy, resilience and adaptability are necessary underpinnings for economic growth. That means building a policy environment that allows a country to compete on capabilities, not just products.

For New Zealand, the productivity challenge is structural and persistent, shaped by small firm size, low capital intensity, reliance on low-productivity sectors (primarily tourism and agriculture) and limited innovation diffusion.[9] Despite a well-educated workforce, these systemic constraints mean inputs are not fully leveraged, limiting productivity growth. Improving New Zealand's productivity for the long-term will require growing the proportion of high complexity, knowledge-intensive activities in the economy.

Five principles for a long-term approach to productivity growth

From our research evidence, insights and public consultation, we have identified five interconnected principles to guide the acceleration of productive activities into the long-term. These are outlined here, using this Briefing's framework, and described more fully below.

Economic goals	**1. Adopt a coherent, long-term economic approach**	
Strategic approach	**2. Strengthen strategic assessment, market intelligence, evaluation** **3. Prioritise internationally oriented, knowledge-intensive clusters**	
Horizontal and vertical levers	**4. Build a productivity ecosystem where innovation, talent and infrastructure work together**	**5. Use internationalisation and trade policy as integral productivity levers**

The application of these principles will also need to reflect New Zealand's unique context, making use of our capabilities, clusters of regional economic strengths and the success of the Māori economy. A one-size-fits-all approach will not leverage our areas of opportunity.

These five principles are directional, interconnected and allow for a range of policy options. For example, knowledge-intensive regional and sector clusters rely on coordinated policy levers, strong infrastructure and skilled people. Internationalisation and trade expansion depend on trusted partnerships, networks and strategic foresight.

Principle 1: Adopt a coherent, long-term economic approach

Make sure horizontal settings and targeted policies work together and endure to deliver a clearly defined and agreed long-term economic goal

New Zealand's productivity performance and resilience depend on a clear, enduring strategy that looks beyond political cycles. This requires robust governance, durable institutions and coordinated engagement to maintain direction over time. A systems approach can ensure that economy-wide settings and targeted policies work together rather than in isolation. Without this foundation, efforts risk becoming fragmented and reactive, reinforcing a tendency to stick with the status quo.

Experience from other small, advanced economies shows that strong horizontal foundations alone are not enough. Combining these with well-calibrated, targeted interventions accelerates innovation and diversification. A coherent framework should link long-term goals, forward-looking analysis and a mix of policy levers designed to deliver lasting value rather than short-term gains. It should embed intergenerational thinking and reflect New Zealand's unique characteristics, including Māori and regional leadership.

By committing to a coherent, long-term approach, New Zealand can shift from incremental change to transformative progress.

Principle 2: Strengthen strategic assessment, market intelligence, and evaluation

Keep learning and improving – track what works, share lessons and be open to doing things differently

A high-performing economy depends on its ability to learn, adapt and make informed decisions. For New Zealand, this means investing in strong foresight and market intelligence so that both government and businesses can respond quickly to change. These functions could involve actively scanning global trends, leveraging international connections and commissioning detailed industry reports to understand key sectors and markets.

When trusted, commercially relevant information is made publicly available it becomes a shared resource that supports coordination and dialogue between firms, investors, researchers and policymakers. This is especially important in rapidly growing sectors, which often require timely regulatory support to sustain growth and maintain market access (recent examples are mānuka honey and infant formula), or require core infrastructure, such as pilot facilities for testing and scale-up (examples include complex food products and bio-manufacturing).

Effective governance relies on these sort of robust feedback loops, ongoing evaluation and the discipline to stop underperforming initiatives without losing capability. Building government skills to access global market intelligence, assess evidence, track progress and adapt strategies ensures actions align with long-term goals. It also means that knowledge-sharing and strong networks can create spillovers that benefit the wider economy. AI will be a tool to support the collection of this information, though it is likely that human networks and judgement will remain essential.

Principle 3: Prioritise internationally oriented, knowledge-intensive clusters

Build from sector and regional strengths and grow strong local and international networks – connecting people, regions and industries.

New Zealand's economy is dominated by small, locally focused firms, which limits scale and global reach. Stronger networks that connect people, regions and industries are likely to improve international competitiveness. Long-term collaboration and public–private partnerships have proven effective in our core sectors such as dairy and are likely to be important in the development of newer sectors such as space and biomanufacturing. Anchoring development in regional strengths and adjacent opportunities enables shared skills and infrastructure to be leveraged while fostering resilience.

Knowledge-intensive industries thrive in clusters that enable talent pooling, rapid feedback and close collaboration, especially when these clusters are connected to global networks. To be effective, this approach should be tailored to reflect the unique differences and strengths of each region. Practical support from government, industry bodies and local institutions, in areas such as infrastructure, commercialisation assistance, investment attraction, training and regulatory clarity will be important to help these clusters and regions grow and succeed.

Principle 4: Build a productivity ecosystem where innovation, talent and infrastructure work together

Turn great ideas into global successes by connecting innovation, skilled people and modern infrastructure at every level, so firms can grow, adapt and compete internationally.

New Zealand has a reputation for entrepreneurial activity, but it can struggle to turn early-stage successes into firms that compete globally. This limits both productivity and the country's ability to diversify its economy. Addressing this challenge is likely to require treating innovation, talent and infrastructure as interconnected systems that operate at local, regional, national and international levels.

If these elements are aligned, firms are better able to scale research and development, build dynamic skills, and access the digital, data and energy infrastructure needed to move ideas from concept to market more quickly and competitively. A high-performing ecosystem has the feature of enabling businesses to identify and respond to market opportunities through timely, granular information, strong collaboration, and effective feedback loops.

Countries like Singapore and Denmark, as well as collaborative initiatives among small advanced economies, demonstrate that innovation ecosystems thrive when there are clear pathways for adoption, targeted government and industry support and strong international connections – including talent pipelines and diaspora networks.

However, while these system-level factors set the stage for innovation, realising the full value ultimately depends on people having the right skills. This can be supported by investment in education, training and leadership development that align with frontier industry needs, foster creativity and diversity, and embrace inclusive models reflecting Māori, Pacific and other community perspectives.

Rapidly changing technological demands are likely to require constant infrastructure upgrades. Similarly, ongoing investment in digital connectivity, reliable affordable energy, and robust data systems will be important, supported by agile regulation and coordinated action.

By focusing on these mutually reinforcing connections New Zealand could build a productivity ecosystem that is better equipped to compete on the world stage.

Principle 5: Use internationalisation and trade policy as integral productivity levers

Use trade and international partnerships as tools for growth – deepening economic integration, regulatory cooperation and innovation diplomacy

Trade policy can support market diversification and help scale New Zealand businesses through new trade agreements (breadth of markets), and regulatory alignment and economic integration (depth in markets). Reducing behind-the-border barriers – such as standards and qualifications – can unlock growth and opportunity in knowledge-intensive, high-productivity sectors. Future expansion of the SEM could embed New Zealand more firmly into regional markets and value chains. Greater coordination of trade, economic, industry and resilience strategies can also enhance innovation, supply chains and long-term productivity.

Targeted, strategic partnerships also create opportunities for joint research, shared solutions and investment. Welcoming global partners into New Zealand's innovation ecosystem and leveraging our trusted brand can support talent and knowledge flows and strengthen networks. Supporting international links for clusters, targeted export assistance and innovation diplomacy can support New Zealand firms into knowledge networks and global value chains.

Identifying opportunities for focus

Together these principles suggest that accelerating the growth of high-productivity activities in the New Zealand economy is most likely to be achieved by aligning and developing ecosystems, locally and nationally, that enable the market to experiment and discover what can be competitively produced in New Zealand.

For government, this means combining enduring horizontal policy settings with well-calibrated, targeted interventions; strengthening market intelligence and feedback loops; prioritising internationally oriented, knowledge-intensive clusters; ensuring innovation, talent, and infrastructure work as interconnected systems and using internationalisation and trade policy as integral productivity levers. These actions reduce market frictions, amplify signals and give firms the capabilities to respond and scale.

In addition to these functions, government can also make strategic choices about what opportunities to focus on to accelerate productivity growth, and how to do this. As a small economy, New Zealand is inevitably a specialised economy. This requires focusing on a relatively small number of high-value industry ecosystems where New Zealand has, or can build, a strong future competitive advantage, while maintaining high-quality horizontal policy settings across the economy. Recent reports have drawn attention to the idea that, rather than continuing a broad-

based approach, New Zealand could concentrate investment in a few high value industry ecosystems where it has a strong future competitive advantage.[60]

The following questions (drawn from the framework in Section 5) can be seen as a basis for a live sensing framework for identifying strategic approaches, as well as the identification of opportunities that could warrant focus to accelerate productivity.

- **Nature of sector/activity**: Is the sector or activity high productivity, paying high wages? Is it R&D- and capital-intensive, producing complex products, scalable in New Zealand?
- **New Zealand's competitive advantages/capabilities**: Do we have the existing nascent capabilities (skills, firms, infrastructure, technical expertise) to make success in this sector or activity a realistic prospect? Does it have diversification potential, ie are there opportunities to move into adjacent higher knowledge intensity, higher productivity activities from this sector?
- **Regional strengths:** Is there a region/s with a supportive base of skills, suppliers or natural resources for this activity?
- **Global demand:** Is there a significant market opportunity? Is the global market large, or niche (playing to New Zealand strengths) and growing and/or is there a premium for quality products that New Zealand can grasp?
- **New Zealand market development:** Is there growth in firm numbers or size in New Zealand? Is this sector or activity attracting local and foreign investment?

A positive position against these questions will identify sectors/activities with high productivity growth potential that could provide a basis for focused efforts. Other considerations will include:

- the broader goals the sector or activity can contribute to, such as resilience
- how innovation can be enabled for this particular sector or activity, overcoming barriers to growth and reflecting its dynamics of change
- a future outlook that can signal possible opportunities and risks and how this sector can have a growth pathway that is robust to future uncertainties.

To conclude

In a future that will not look the same as the recent past, New Zealand will need to adapt and be prepared to do things differently if it is to lift its productivity performance. New Zealand has strong foundational policy settings from which to grow and help navigate a period of greater global uncertainty and volatility. New Zealand also has existing regional specialisations and clusters that, while small in global terms, can be engines of significant innovation and growth.

This Briefing highlights how a strategic and deliberate approach to economic development policies, and to growing international connectivity and trade, can help accelerate the emergence and growth of high productivity activities in a rapidly changing world. By applying these principles with disciplined learning and strong market intelligence, New Zealand will have the opportunity to lift productivity, diversify into more complex, knowledge-intensive activities and compete globally with confidence.

9. Glossary

Absorptive capacity: The ability of an organisation or economy to recognise, assimilate and apply new knowledge and technologies; considered crucial for maximising the benefits of technological advancements.

Adjacencies: Industries, technologies or capabilities that are closely related to existing strengths, enabling easier diversification or innovation due to shared knowledge, infrastructure or skills.

Capabilities: The embedded knowledge, skills, technologies, infrastructure, governance and institutional arrangements that enable a country, region or sector to produce specific goods and services competitively. In the New Zealand bioeconomy context, capabilities span across the supply chain, from genetics and feed inputs, through production and processing, to logistics, branding and market access.

Clusters and agglomeration: Geographic concentrations of interconnected firms, skilled labour, research institutions and support services that foster innovation, productivity, and competitive advantage through proximity and collaboration.

Commercialisation: The process of turning an idea, product or service into something that can be sold in the market.

Dynamics: The patterns and processes of change over time in economic systems, including innovation, competition and structural transformation.

Dynamic capabilities (of firms): The ability of firms to sense opportunities for using new technologies to deliver value to customers, to seize those opportunities by mobilising resources to create and capture greater value and in this way to transform themselves through continual renewal.

Economic fields of study:

- **Innovation studies**, focuses on the processes of invention and innovation, the role of institutions, firms and networks, and the impact of innovation on productivity, competitiveness and societal wellbeing.
- **Endogenous growth theory**, pioneered by Paul Romer in the 1980s, explains long-term economic growth as being driven by internal factors such as investment in human capital, innovation and knowledge creation, especially through knowledge spillovers that enhance productivity across the economy.
- **Complexity economics** is an approach to economic analysis that views the economy as a dynamic, evolving system made up of diverse, interacting agents, emphasising feedback loops, adaptation and the role of networks, innovation and learning in shaping outcomes
- **New Economic Geography** explains how economic activity concentrates in certain regions due to increasing returns, transport costs and larger market size. It highlights the emergence of core-periphery patterns, where prosperous urban centres (cores) often host high productivity clusters of firms and workers, while outlying areas (peripheries) may lag behind.

- **Urban economics** includes study of how geographic concentration of firms and workers, often referred to as agglomeration or clusters, can lead to productivity gains.

Economic complexity: In economic development, refers to the diversity and sophistication of a country's productive capabilities and the interconnections among industries, technologies and institutions.

Economic integration: The process by which countries reduce trade barriers and coordinate economic policies to facilitate the free flow of goods, services, capital and labour across borders.

Equity analysts: Professionals who evaluate financial data, market trends and company performance to provide investment recommendations and assess economic prospects.

Factor Conditions: Refers to the basic inputs or resources that a country or region possesses, which are necessary for production and economic activity. They include:

- Natural resources (land, minerals, climate, etc.)
- Human resources (skills, education, labour force)
- Capital resources (infrastructure, machinery, financial capital)
- Knowledge resources (research institutions, technical expertise)
- Institutional resources (legal systems, regulatory frameworks).

These conditions shape what industries can thrive in a country, how productive they can be and how easily they can innovate or adapt. Strong factor conditions (such as a skilled workforce, advanced infrastructure or robust research institutions) support higher productivity and competitiveness. Weak factor conditions can constrain growth, especially in emerging sectors.

Feedback loops: Circular processes where outputs of a system influence future inputs, reinforcing or dampening economic trends, innovation or policy outcomes.

High and medium-high tech manufactured exports: High-technology manufacturing is the sub-set of manufacturing industries in which expenditure on research and development is greater than 8 per cent of revenues, eg pharmaceuticals; aircraft manufacturing and repair services; professional and scientific equipment manufacturing (including medical technologies) and computer and electronic equipment manufacturing. Medium-high technology manufacturing is the sub-set of manufacturing industries in which expenditure on research and development is between 2 per cent and 8 per cent of revenues, eg chemical product manufacturing; transport equipment manufacturing; machinery and equipment manufacturing.

Industrial clusters: Groups of related industries located in close proximity that benefit from shared infrastructure, labour pools and knowledge spillovers.

Knowledge-intensive activities: Economic activities that rely heavily on expertise, research and innovation, often involving high levels of education and R&D investment.

Knowledge spillovers: A process that occurs when ideas, skills or innovations unintentionally benefit others nearby, boosting innovation and productivity. These spillovers diminish with distance, making clusters and urban density especially powerful for sharing tacit knowledge and accelerating economic growth.

Mission-oriented: An economic approach in which governments and institutions set ambitious, targeted goals and mobilise public and private resources to drive innovation and coordinated action towards these objectives.

Path dependence: Refers here to the tendency of countries to diversify into industries that are closely related to existing capabilities.[37] In small economies like New Zealand, early specialisation in biological exports has shaped industrial development by reinforcing capabilities in food and fibre production, processing and export, and constraining diversification into unrelated sectors.

Resilience: The capacity to anticipate, absorb and recover from disruptive events while maintaining core functions and adapting in ways that promote learning and long-term thriving.[50]

Small, advanced economies: Countries with relatively small populations but high levels of income, innovation and institutional capacity, often reliant on specialised exports and agile policy frameworks. New Zealand participates in the Small Advanced Economies Initiative which is a collaboration with Denmark, Finland, Ireland, Israel, Singapore and Switzerland to carry out research and share information to inform the policies of these small economies.

Static vs dynamic gains (from trade): Static gains from trade refer to immediate efficiency improvements from resource reallocation based on comparative advantage and global price signals. Dynamic gains encompass long-term benefits such as innovation, technological diffusion, capability development and enhanced resilience through competitive adaptation.

Trade architecture: The institutional and policy frameworks that govern international trade, including agreements, regulations and dispute resolution mechanisms.

- **Unilateral:** Trade actions or policies undertaken by a single country without coordination or agreement with other nations.
- **Bilateral:** Trade agreements or relationships between two countries, often involving negotiated terms for market access and cooperation.
- **Multilateral:** Trade arrangements involving multiple countries, typically under international organisations like the WTO, aimed at reducing barriers and promoting global trade norms.
- **Plurilateral:** Agreements among a subset of countries within a larger group, allowing willing participants to advance trade liberalisation or cooperation without requiring consensus from all members.

Value-added food and beverage exports: Products made from a mixture or combination of ingredients, rather than a single ingredient. Primarily, export codes HS16-21 plus HS22: Beverages; HS2309: pet food; and HS040900: honey (as high value premium product). Note that infant formula is as highly complex product classified under the HS19 code: Preparations of cereals flour, starch or milk, not HS04: Dairy.

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