Government response to the Productivity Commission's Frontier Firms inquiry

MARCH 2022





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The Productivity Commission Report

In December 2019, the Minister of Finance directed the Productivity Commission to undertake an inquiry into Maximising the Economic Contribution of New Zealand's Frontier Firms (Frontier Firms inquiry). The referring Ministers were the Ministers of Finance, of Economic Development and of Trade and Export Growth (the referring Ministers).

Frontier Firms are the most productive firms in the domestic economy within their industry and can have an important impact on aggregate productivity performance.

The terms of reference noted the purpose of the Frontier Firms inquiry is to identify policies and interventions that could maximise the performance and contribution to the economy of New Zealand's frontier firms through improving the performance of the frontier firms themselves, and helping innovations diffuse more effectively from frontier firms to other New Zealand firms.

The Productivity Commission released an issues paper in April 2020 and its draft report on December 2020. The final report was published April 2021 and makes 71 findings and 30 recommendations.

The Government wishes to thank the Productivity Commission for their well-researched, well-evidenced, coherent and practical inquiry. The Inquiry has challenged Government to think about where and how we focus our efforts to achieve the best economic and social results. There were also some immediate practical recommendations to action, as well as longer-term ideas that can help shape and guide our economic strategies.

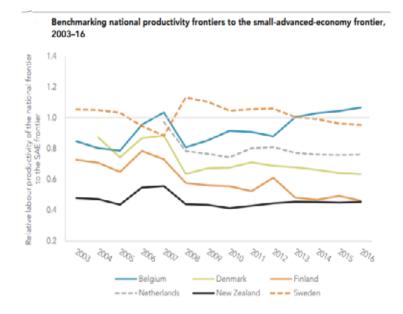
Key findings

The Productivity Commission made important and interesting findings in relation to the productivity of New Zealand's frontier firms. These findings will help guide Government's economic strategy towards a more productive, sustainable and inclusive economy.

The inquiry noted that frontier firms are critical to the economy. While constituting only 8% of firms, they account for 13% of labour input, 22% of capital services, 27% of gross output, and 20% of value added.

A striking finding of the inquiry is that the labour productivity of New Zealand's frontier firms is less than half (45%) that of the best frontier firms in the small advanced economies (SAEs) of Belgium, Denmark, Finland, the Netherlands, Sweden and New Zealand.

Another interesting finding is New Zealand's poor allocation of labour. In the European SAEs, more labour is employed in the top labour-productivity decile than in any other, whereas in New Zealand more labour is employed in the 5th productivity decile.



Broad tenets of frontier firms inquiry

The Inquiry found that exporting innovative products at scale is the way New Zealand can overcome the hurdles of size and distance, and significantly lift national productivity and reach the global frontier.

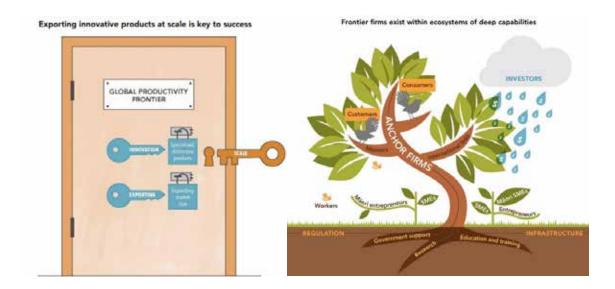
Successful SAEs have outstanding records of exporting specialised and distinctive goods and services at scale. Their frontier firms operate at the global frontier; in other words, they are world leading. These have the scale needed to invest in innovation and exporting, through being large "anchor firms" or through collaboration among smaller firms.

Successful SAEs employ three complementary strategies to achieve the goal of exporting specialised, distinctive products and services at scale:

- > Attract high-quality foreign direct investment-
- > Support individual companies to meet the fixed costs of innovating and exporting-
- Invest in building "innovation ecosystems" around frontier firms in selected focus areas. These ecosystems are made up of entities, their capabilities, and the networks between them, as well as workers, researchers, education and training providers, mentors and investors, and enabling infrastructure and regulations.

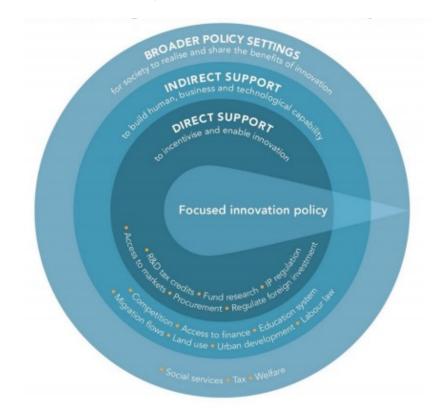
The Inquiry found that New Zealand already does the first two actions, primarily through New Zealand Trade and Enterprise and Callaghan Innovation, however improvements can be made.

The Commission also found that New Zealand must intentionally focus investment on a few innovation ecosystems. The Commission recommends that Government focus on areas of the economy with rich potential for innovation.



Government agrees with the Productivity Commission that good innovation and good internationalisation policy settings are important for a productive economy.

Focused innovation policy



A key finding of the inquiry was that as a complement to broad-based innovation policies which benefit all firms, finite resources also need to be deliberately focused on a small number of high-potential areas, rather than being thinly spread in "sub-therapeutic doses". The focus areas should reflect existing or emerging strengths and capabilities. They may not align with standard industry classifications, but instead span a range of industries.

To achieve "focused innova	ion ecosystems" the commission emphasised three roles for Government:

Collaborative process to confirm focus areas	Government can choose relatively broad areas for focus and, with industry and other partners, design institutions, processes and funding arrangements from which promising opportunities can emerge.
Two tiers of governance	Strategic High level - Bring together senior Government Ministers and Officials, top industry representatives (firms and workers), and leading researchers and educators to select broad areas for focus, shape the strategic direction, direct resources, and provide strategic direction across successive governments. Devolved and Tactical – As well as having an overall governance body, many countries also devolve governance in areas of focus to independent multi- stakeholder entities. These oversee the development and resourcing of specific projects within areas of focus.
Substantial long-term investment	Substantial long-term funding to support the "high potential" areas.

Three key challenges

The Productivity Commission challenged Government with the following questions:

- > Are the **sectoral priorities** Government has made in the Industry Transformation Plans sufficient to enable the prioritisation and focus identified in the Frontier Firms inquiry?
- > Is the **leadership and governance** of the Industry Transformation Plans programme sufficient to provide the high level governance anticipated by the Frontier Firms inquiry?
- > Do we have sufficient weight of effort?

Productivity Commission's assessment

According to the Productivity Commission, if New Zealand is to achieve innovation-driven export success on the scale of comparator SAEs, it must be similarly bold in identifying the most promising areas for focus, establishing effective governance, institutions and processes and allocating substantial resources to chosen areas over a sustained period of time.

Weak focus	New Zealand policy focuses innovation effort, deliberately or otherwise, in areas relevant to promoting competitiveness and export success. But it is not clear how well the many separate initiatives are connected.
Uncoordinated and fragmented support	Lack of wide engagement across stakeholders for selecting and developing areas of focus.
Thinly spread funding	Public resources allocated to the Government's industry strategy are very small as a proportion of RSI and economic development expenditure.

The Productivity Commission's assessment is:

Success requires a large step up in resources, leadership and focus



Government's Response

Government's overarching objectives

New Zealanders value a strong economy that provides decent jobs, higher incomes, and opportunities for current and future generations. Equally, we understand that the health and wellbeing of our people, the protection and enhancement of our environment, and the strength of our communities will allow us to fulfil our potential.

Following the emergence of COVID-19 Government understood that the best economic response is a strong health response. Through protection and stamping out the virus Government has allowed the economy to get going again faster. Government has three overarching objectives for this Parliamentary term to help the economy bounce back faster and transition towards a more productive, sustainable and inclusive future:

1. Keep New Zealanders safe from COVID-19

The first objective of the Government is to keep New Zealanders safe from COVID. In keeping New Zealanders safe, we protect jobs, livelihoods, and strengthen our economy. A strong health response has given the New Zealand economy the best chance at coming back stronger.

The Government will retain and enhance the multiple lines of defence to keep COVID at bay and stamp it out with minimal disruption to the economy and to our everyday lives. We are committed to the maintenance of multiple lines of defence, including a strong border, effective contact tracing and vaccinations.

2. Support an accelerated economic recovery

Labour's five point plan remains the centre-piece of the economic recovery plan:

\$42 billion of infrastructure investment to future proof the economy

Training and job creation opportunities to support workers and businesses

Support for small business to grow and thrive

Programmes to bolster our exports

And policies that prepare New Zealand for the future by making the most of our competitive advantage in renewable energy and waste reduction.

3. Lay the foundations for a better future

The Government has marked out the need and importance of taking a broader view of success. Wellbeing will continue to be a priority for Government with a focus on reducing child poverty, tackling climate change, and addressing housing.

The Frontier Firms Inquiry has provided important insights and recommendations which support the Government's three primary objectives and the transition towards a more productive, sustainable and inclusive economy.

Our plan is ambitious and far reaching

The Government's Economic Plan is ambitious and far-reaching. The Government has invested heavily for the future of New Zealanders. Government is working to lift productivity through significant system reforms across infrastructure, people, trade, small business, government procurement and the environment. The "industry" or "sector" focus is signalled in our Industry Transformation Plans and Innovative Partnerships Programme. Together these key reforms will support New Zealand's long term transition towards a more productive, sustainable and inclusive future.

These significant system reforms include:

Resource Management Act (RMA)	The RMA will be repealed and replaced with the Natural and Built Environments Act (NBA), Strategic Planning Act (SPA) and Climate Change Adaption Act (CAA).
Reform of Vocational Education	The reform will create a strong, unified, sustainable vocation education system that is fit for the future of work and delivers the skills that learners, employers and communities need to thrive.
Fair Pay Agreements	The Fair Pay Agreement system will bring together employers and unions within a sector to bargain for minimum terms and conditions for all employees in that industry of occupation.
Immigration reset	The Government will rebalance immigration settings towards higher-skilled migrants.
SME access to finance	Government are looking into pathways to better support SME's access to finance, taking on-board insights and lessons from other jurisdictions, and the Small Business Council.
Reform of Government Procurement	Government has implemented changes to its Procurement Rules to leverage spending and drive broader outcomes, including increasing access to procurement opportunities for NZ businesses. It is also considering a reset of the procurement system to deliver greater transparency, and cross-government standardisation and collaboration.
Research, Science and Innovation strategy	The reform will guide the direction of government investment in RSI and help us take action to ensure our RSI system is optimised for success.
Investing in infrastructure	Government will be investing heavily in infrastructure to support the economic recovery of New Zealand.
Trade Recovery Strategy	The Trade Recovery Strategy helps put New Zealand in the best possible position to recover from the impacts of COVID-19, and to seize new opportunities for exports and investment.
Industry Transformation Plans	The Government is taking an active industry policy approach to ensure we grow productive sectors.
Innovative Partnerships Programme	The programme helps research and development intensive businesses connect, collaborate and invest in New Zealand.

These reforms have been strategically planned and co-ordinated to ensure we do not fall into a piecemeal approach. Each reform will add to our long term economic plan, helping New Zealand build a more resilient, sustainable and productive economy.

Industry focus

The productivity Commission emphasised that as a complement to broad-based innovation policies which benefit all firms, finite resources also need to be deliberately focused on a small number of high-potential areas, rather than being thinly spread in "sub-therapeutic doses". Government has focused resources in specific and promising sectors through the Industry Transformation Plans and the Innovative Partnerships Programme.

Industry Transformation Plans

Industry Transformation Plans (ITPs) are a central mechanism to deliver the Government's Industry Strategy, with a focus on transforming key industries in the economy for the future in partnership between government, industry (both businesses and workers) and Māori. Co-developing ITPs through partnership builds a collective vision and actions that all stakeholders buy into, aligning people and their business decisions to create stronger outcomes for industry.

ITPs are long-term focussed and action-orientated. The long-term goal is to transform industries in New Zealand, and through this catalysing transformation in the wider economy, to become more productive, sustainable, and inclusive, with better quality work, and to increase and leverage global competitive advantage by 2050.

The ITPs have been strategically selected and co-ordinated to ensure we are focusing on high potential areas, have the right leadership and governance, and have sufficient weight of effort to enable transformation. While each ITP is industry specific, we also consider and leverage the intersections and commonalities in challenges or opportunities so cross-cutting actions can be pursued.

Areas of Focus

The core purpose of each ITP depends on the specific industry, but all are focused on achieving transformational change. There are eight Industry Transformation Plans in progress. These are industries with significant potential to contribute to the future economy we desire, which might be through shifting an existing industry to high value growth, shifting the performance of large, interconnected industries, or scaling up high potential industries to be a larger part of our future economy.

Each industry selected represents a sector with potential for a transformation that can lift aggregate productivity and contribute towards a more resilient and sustainable economy. An objective across each industry is to support more innovative industries that could contribute to a thriving innovation ecosystem, and support a sustained lift in productivity, sustainability, and inclusivity in these industries.

While we are still in the first phase of the ITPs, we have already seen exciting initiatives underway. For instance, the Agritech ITP has created an Agritech Venture Capital Fund and the Construction ITP has created the Accord Network for industry and Government to work together. As the ITPs develop and mature, we expect to identify and progress significant further significant initiatives with our partners.

Industry Transformation Plans in progress		
Construction	Implementation phase	
Agritech	Implementation phase	
Digital technologies	Final stages of development	
Advanced Manufacturing	Early development phase	
Food and beverage	Early development phase	
Forestry and wood processing	Early development phase	
Tourism	Early development phase	

Leadership and Governance

The ITPs have a tripartite approach, bringing government, business and workers together to consider the desired future for the sector and the deliberate actions needed to get there. In developing and implementing an ITP, partners consider all of the key elements of an industry ecosystem (such as innovation, skills and investment) and put in place governance structures that provide an ongoing mechanism for partners to share information about industry issues and risks.

The ITPs will help to shape sectoral resources and capabilities, including government investment, over the timeframe needed for transformation. An important aspect is how we enable meaningful participation and active partnership in decision-making with Māori. ITP development and implementation remains alert to this core principle, and we continue to seek to identify and act on opportunities in this area.

Weight of Effort

An ITP gives rise to an initial 1-3 year programme of actions by industry, government and others that lay the foundations for transformation and/or catalyse early shifts in the industry. The plans also indicate future phases of activity to continue the industry's transformation. These phases would focus and build from initial work programmes and provide clear signals about future direction. This includes using the collective ITP partners' full suite of levers to enable this transformation, considering, for example, investment, innovation, infrastructure, skills, and access to capital to provide an enabling environment (or industry ecosystem) to lift productivity, scale up, and create good, high-value jobs.

These actions may take the form of better coordination or reorientation of existing levers and supports, influencing changes to system settings that have benefits across industries, and industry specific initiatives. The ITPs will need to be backed by sufficient resources and commitment, over a sufficiently long timeframe, to ensure transformative change is achieved.

Innovative partnerships programme

The Research, Science and Innovation portfolio has been leading industry transformations through the Innovative Partnerships Programme, which helps raise firm productivity by focusing innovation effort through specified areas of the economy.

The Programme forms part of the Government's efforts to raise the levels of research and development (R&D) by attracting foreign direct investment into New Zealand through working with international knowledge-intensive firms and innovators and connecting them with domestic firms and researchers. This Programme helps international businesses develop a New Zealand presence, partner on R&D with domestic firms, and build a unique competitive advantage. These partnerships create ecosystems between our industry, researchers and government on which our New Zealand businesses can take advantage. In particular, the Programme strengthens the capacity and capability for collaboration between businesses and public research institutions on innovative technologies and strengthens New Zealand's international connections.

Government has focused on transformative technologies or emerging sectors that present opportunities for New Zealand to lead in niche areas of competitive advantage. Overtime these technology based industries can build thriving ecosystems and contribute to the overall productivity, sustainability and resilience of the New Zealand economy. Our current focus areas include space, advanced aviation and clean energy technologies. The Programme works with multinational corporations (MNCs) on a case-by-case basis to identify opportunities that encourage spillover benefits, such as employment, technology adoption and development of adjacent technologies. Government are in the process of expanding the Programme over the next two years.

Aerospace Sector

The Aerospace sector has been a key focus area for Government. The industry is an exciting and growing area, with the space sector alone contributing over \$1.7 billion to our economy each year. The New Zealand Government is accelerating the growth of the aerospace sector through early space programme investments such as the establishment of a mission operations control centre for the MethaneSAT mission and space technology partnerships with NASA and the German Aerospace Center (DLR).

The Government recently announced 'Project Tāwhaki', a unique commercial partnership between Te Taumutu Rūnanga and Wairewa Rūnanga and the Crown, which will see the Kaitōrete Spit environment protected and aerospace activities and R&D facilities built.

Clean Energy Technologies

Government is also focused on the development, trialling and testing of emerging lowemissions technologies in transport, including electric, hydrogen and advanced biofuels. Clean energy technology has the potential to catalyse and rapidly accelerate New Zealand's energy transition, from higher carbon-emitting sources towards environmentally sustainable alternatives.

The government recently announced that it is working together with Air New Zealand on the development of a sustainable aviation fuel supply chain, inviting leaders in innovation to demonstrate the feasibility of operating a SAF plant at a commercial scale in New Zealand.

New innovation and internationalisaton strategy

The Productivity Commission challenged Government to consider whether we have our internationalisation and innovation settings optimised for the economic transformation we wish to achieve. While our focus is on ensuring our ambitious and far-reaching strategy is delivered, we do think it is timely to review our current policy settings in this space. Government is currently taking forward the research, science and innovation strategy, as well as an internationalisation review and refreshed investment attraction strategy.

Research, science and innovation strategy

Government is in the process of taking forward the work started by the Research, Science and Innovation Strategy, which was interrupted by the COVID-19 pandemic. It was put on hold firstly as we responded to the pandemic, and then subsequently as the Strategy obviously needed to be looked at again in light of the pandemic.

It is clear we need to configure our Research, Science and Innovation (RSI) system to meet the challenges and opportunities of the future. This includes addressing fragmentation within the system (including connections between research institutions and businesses) and the difficulties our system faces in adapting to changing national need and building the capabilities necessary for future transformation and resilience.

Internationalisation review

The Productivity Commission found that New Zealand needs to grow more firms that export innovative products at scale. Central to this finding is the need for Government to create optimal internationalisation settings to encourage and support firms to internationalise.

Government recognises from the inquiry that good internationalisation policies should encompasses more than exporting and include foreign direct investment, international labour, knowledge flows and other global links.

In response to the Inquiry, Government has started an internationalisation review. The review will examine our current internationalisation supports, assess their effectiveness, and determine whether the supports are achieving Government's transformative objectives. A terms of reference is currently being prepared.

Refreshed investment attraction strategy

The Government is also developing an investment attraction strategy, to ensure we are attracting "high value" investments into New Zealand. The strategy will help to implement a more proactive, deliberate approach to attracting FDI recommended by the Productivity Commission by providing a clear direction about the type of investment we want, create alignment with the government's broader economic transformation goals and improve coordination and cooperation between agencies.

Dynamic capabilities and Māori firms

Underpinning the Productivity Commission's Inquiry were two important messages:

Firstly, creating a thriving innovation ecosystem and pushing out the productivity frontier requires strong policy settings and it requires the development of dynamic capabilities by firms. The Productivity Commission sees a role for government support for firms in developing this capability.

Secondly, Government can learn a lot from Māori firms which operate a "multiple bottom line approach". It is also critical government recognises the distinct needs and values of Māori Firms to ensure they are supported in a way that maximises their growth and resilience.

DYNAMIC CAPABILITIES

The Frontier Firms inquiry emphasised that Firms with more dynamic capabilities can identify areas of competitive advantage and then seize opportunities in these areas by innovating while identifying and effectively managing risks.

Government agrees that dynamic capabilities are critical to lifting the performance of frontier firms. Government has begun investigating dynamic capabilities, looking at the effect of individuals and firms with dynamic capabilities and how it is being measured.

Māori firms

The Frontier Firms inquiry emphasised the importance of learning from and supporting Māori firms. The Māori economy exhibits many of the characteristics needed for firms to innovate, grow and support higher living standards and improved wellbeing. Māori firms offer significant potential to contribute to sustainable and productive economic growth.

Government welcomes the Productivity Commission's findings about the contribution Māori business models can make at the frontier and the lessons we can take from their approach and success. This includes the advantages from embedding Māori values in organisations and focussing on serving multiple bottom lines, as well as their long-term view and high levels of ambition, which support higher levels of innovation and exporting than New Zealand firms generally.

The Government agrees that we need to support the growth and prosperity of Māori firms, through understanding their needs, values and our obligations under the Treaty. The Government is committed to building a thriving Māori economy that can drive New Zealand towards a more productive, sustainable and inclusive future.

We developed a Māori Economic Resilience Strategy to help reposition Aotearoa New Zealand for recovery from COVID-19, and to improve the resilience of Māori against future economic shocks. The Māori Economic Resilience Strategy work programme recommends effort across: skills and workforce; community resilience and infrastructure; and enterprise. Te Puni Kōkiri will monitor a set of indicators across these work streams to track Māori Economic Resilience.

Government also agrees with the recommendation for a Hui Taumata, which must be delivered in a careful and appropriate way. We will continue to work on this recommendation.

Immediate recommendations

The Commission also conducted case studies into the dairy, software, horticulture and health technology industries. Following these investigations, the commission made some specific and immediate recommendations to enable innovation through regulation.

The Government has provided a comment on each of these specific recommendations:

R10.1 The Government should prioritise keeping regulations up to date with technological and other changes, where not doing so would curb innovations that have potentially high payoffs in wellbeing. This action should apply especially in areas of focus for innovation. Where such changes require new or updated regulations, their design and operation should allow flexibility in achieving the desired regulatory outcomes, without compromising adequate monitoring and enforcement.	Government agrees that all policy and regulations should remain fit for purpose. But Government does not agree that a comprehensive review of New Zealand's innovation policies will be productive while the policies are still in development. A review would be more appropriate 5 years after a major new policy is introduced.
R10.2 The next review of the Dairy Industry Restructuring Act 2001 in 2024 or 2025 should include an assessment of the effects on Fonterra and the wider dairy sector of the removal of Fonterra's obligation to accept the re-entry of its farmer supplier-shareholders who have left the cooperative to supply another processor and then wish to return.	Government agrees that a review of the Act should include an assessment of the effects of Fonterra on the wider dairy sector.
R10.3 The Government should introduce a consumer data right consistent with Australia's sectoral-designation regime. Banking or the wider finance sector should be one of the early designated sectors, to facilitate the development of efficient and effective open banking and open finance in New Zealand.	On 5 July 2021, Government decided to implement a legislative framework for a consumer data right to allow consumers to securely share data held about them with trusted third parties. A Bill implementing the consumer data right will be introduced in 2022.
R10.4 The Government should undertake a full review of the regulation of genetic modification (GM), to ensure it is fit for purpose and supports domestic innovation.	Government has long considered that the New Zealand brand and value is best met by maintaining a 'proceed with caution' approach. However, we consider it timely to start informed conversations around New Zealand's use of GM technologies.
R10.5 The Ministry for Primary Industries' work on designing new post-entry quarantine facilities for new plant varieties and breeding material, and improving the capacity and efficiency of the import health standards processes, is welcome investment.	In Budget 2020, Government invested in an Interim Post-Entry Quarantine (PEQ) facility, which will be operational in 2023.
R10.6 The Government should use its intended major health system reform to improve the mandate, funding and incentives for DHBs to participate in the healthtech innovation ecosystem, for the mutual benefit of the healthtech sector, and the efficiency, effectiveness and accessibility of New Zealand's health and disability system.	Government agrees with this recommendation. There are reforms made in this space through the establishment of Health NZ and the Māori Health Authority.

Follow on review

Government is working to lift productivity through significant system reforms across infrastructure, people, trade, small business and the environment. The 'focused innovation policy' proposed by the Productivity Commission is signalled in our Industry Transformation Plans and Innovative Partnerships Programme.

Government agrees with the Productivity Commission that our innovation and internationalisation policy settings must be optimised for economic transformation. Government is currently moving forward the work started by the Research, Science and Innovation Strategy. In light of the Frontier Firms inquiry Government will be reviewing our internationalisation policy settings. Government is also refreshing our investment attraction strategy to ensure we are attracting 'high value' investments into New Zealand.

Government has asked the Productivity Commission for a follow-on review of Government's policy settings in 12 months, to determine whether we are shifting the productivity dial and progressing towards a more sustainable and inclusive economy, or whether more radical change is needed.

Final comment

Government has committed to a long term strategy of transformative change, which includes transitioning key industries, reviewing our internationalisation policies and supports, taking a more deliberate and proactive approach to investment attraction, and moving forward the research, science and innovation reform. Government is also committed to learning and understanding how we can build dynamic capabilities, as well as how we can foster the growth and resilience of Māori firms. Together these efforts will allow the economy to rebuild in the wake of COVID-19, and move forward into a more productive, sustainable and inclusive future.

The Government wishes to again thank the Productivity Commission for their well-researched, practical and valuable Inquiry. The Inquiry has already started important conversations amongst officials, and we know this inquiry will continue to shape our long-term Economic Plan.

