Productivity Commission Report Submission

New Zealand firms: reaching for the frontier

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Opening Statement:
This report is based on turning inputs into the maximum outputs. This perspective is the foundation of the economics of scarcity that formed in the industrial era. It is not the only way to achieve productivity. It can also be described "achieving optimal output with the least amount of inputs" which shifts the focus to sustainable economics. Another versions is restating this as "achieving the best outcomes through optimal use of inputs" which is appropriate for creating value in abundant environments such as weightless products and services.

Focusing policy solely on "making stuff" from inputs and maximising revenue will continue to neglect why NZ is achieving strong results despite lackluster results in industrial GDP metrics. We risk diverting business activity away from areas where we have potential to grow from the strong positions we have established. The economics of scarcity has served the world well until the 21st century. It is in decline, being displaced with sustainable and abundance economic models.

An important question is whether our policies should focus on firms on all the frontiers: industrial productivity, sustainable productivity, and value-based productivity?

The purpose of the inquiry was to "*identify policies and interventions that could maximise the performance and contribution to the NZ economy of our most productive firms, by improving their performance and helping diffuse their productive competency to others NZ firms."* The Terms of Reference do not specify what definitions of economics, productivity, frontier firms, or innovation should constrain the Productivity Commission's report.

The report is focused on a singular measure – GDP per capita, as this is the basis used by the OECD to define frontier firms. Consequently, there are biases and assumptions about productivity and innovation. If policy is to be formed to serve NZ businesses and remove the drag on our living standards, we need to be aware of these biases and assumptions. More importantly we need to be aware of where these may have a negative impact on business activity that is currently improving our living standard and well being.

Observations:

- This report does not challenge thinking. It reinforces existing beliefs about how innovation and economies function.
  - There are many successful business models within an industry, each with their own equilibrium for revenue per employee. A frontier business in terms of innovation may not be the same thing as a frontier firm in terms of productivity.
  - The selection of references from OECD material only highlight points that support the problem assumptions in the terms of reference. There are wellbeing reports by the OECD (Better Life Index, Discretionary Income Index) that show NZ having the same or better well being/living results, despite our lower GDP and lower wages. Achieving better outcomes for less cost is seen by many as being more productive, not less.
- Businesses are portrayed as islands in an economic sea.
  - Our business world today is far more connected and so the economic models are more complex than portrayed in the report. We form **value chains** by working together, where high value oriented businesses cooperate with high volume operators to achieve scale and optimal return on investment for everyone. Revenue per Employee of frontier firms in an industry is achieved by offloading their less productive elements to others, who are more efficient at those parts. Diffusion is not relevant here as frontier firms depend on the others in the value chain to work differently. For example Heinekin achieves global expansion by licensing its brand and recipes for beer. If breweries do not brew or retail stores do not sell, Heinekin cannot sustain its global scale. There is minimal diffusion of Heinekin recipe and branding innovation to the others in the industry
- Innovation is portrayed as an internal business activity.
  - Innovation has evolved substantially since the industrial era. At that time, business leaders did not have easy access to knowledge about how other businesses worked, and had limited supply chain options to access skills & resources. At a time when economic activity was driven by scarcity, every change to a business was driven by internal innovative thinking. We live in a world where the **economics of abundance** is prevalent and growing, especially for the digital environment where knowledge and resources are also “weightless”.
  - In this abundant world, we **pursue excellence in our businesses**, and f**ocus innovation on competitive advantage**. Innovation is an expensive and risky way to increase productivity. Our cultural tendency to “DYI” means we prefer to be innovative when we could be learning to be excellent. There are well established lessons to learn in **Product Leadership, Operational Excellence, and Customer Intimacy**. These are the knowledge areas that can diffuse from leading firms to others, and achieve the goals of this inquiry.
- It does not highlight New Zealand’s unique characteristics
  - The SAEs we are most compared too in the report have a few things in common: (1) their government spending contributes around 50% to their GDP. We do not. (2) they have the largest inequality in wealth, which allows the wealthy to underwrite the risks of global expansion. NZ is more egalitarian, and less wealthy. (3) They have a few centuries head start on NZ as a modern nation.
  - Our unique culture is rooted in protecting our treasures and being sustainable. Top performing productive firms by the industrial definition are maximising the exploitation of resources to produce the greatest revenue and return on investment. We are achieving our improvements without the extreme worker exploitation, out-

sized debt, or resource depletion that many frontier firms have historically resorted too.
    - True innovation in “Product Leadership” is at the heart of NZ’s economic diversification and high growth companies over the last few decades. Our creative and technical talents are **applying our knowledge to creating products and services** in ways that are difficult for other countries to imitate. Our burgeoning success in software, media, aerospace, gaming, digitising of agricultural services, etc is born out of a different **definition of innovation (McKinsey and Clay Christensen)** than used in this report (Doblin).
- It does not explore the greater productivity issue facing all governments
    - The report focuses on systemic innovation, where we make improvements to current way of doing business so we can scale. “Disruptive Innovation” dramatically reduces the cost to consumers, and displaces the traditional frontier firms. The dramatic productivity increase on the supply side means a massive drop in revenue/GDP for a sector. This undermines the traditional revenue collection used by Governments to fund their activity. The OECD report on frontier firms acknowledged the global trend where frontier forms are dropping in GDP/Capita performance. This industrial productivity approach simply does not withstand the impact of the economics of abundance. Spotify disrupts the music industry, AirBnB disrupts hotels, Uber disrupts transport, Netflix & YouTube disrupt television and movies. All of them are having a significant, negative impact on GDP and erasing frontier firm advantages. At the same time tremendous opportunities are forming, which hundreds of start-ups in NZ are succeeding at, by **monetising** the widely available technologies and resources.
- NZ needs to be a place for wealth to reside.
    - The single biggest contributor to NZ born businesses not achieving global scale is the lack of reasons to stay here once they start growing. Our capital markets give them limited ability to scale locally, and we haven’t been around long enough to accumulate massive domestic wealth.
    - We seem to have a blind spot in realising our global competitive advantages in product innovation. There are compelling reasons to reside your globally successful business in NZ, but we don’t make it clear or worthwhile.
- Knowledge is shared freely
    - An important consideration for policy is where to focus incentives. Research and technological discovery are increasingly being made freely available. Businesses are innovating by applying these advances to creating new and improved products & services. This is contrary to the industrial era approach where knowledge and technologies were held tightly and exploited by the owner. If we want a higher revenue generating economy relative to our working population, we need to shift the emphasis of our Innovation policies away from research towards development and commercialisation. This is most evident in the move by the Scandinavian SAEs to adopt the Oslo Manual, rather than the Frascati Manual, to guide their R&D policies.

Secondary Considerations:

- Negative focus. The research and report did not investigate what is working, except for the contribution of Maori frontier firms. The rest of NZ frontier firms share many traits

with those described in Maori frontier firms, and can provide additional insights. We ignored much of our home-grown success when considering what we need to encourage in NZ.
    - Missing the positive: e.g. aerospace industry, creative sector working with the tech sector – film, publishing, music, games, software applications
- Labour is a separate market to industry, so industrial productivity does not automatically trickle down to increased wages and better living standards. It changes the demand for labour. If it needs less skill or volume of labour to achieve the same output, it reduces the demand and lowers the wages. If it requires greater skill or more volume, it increases demand and increases wages. The linkage between productivity and living standards in the terms of reference has been challenged by the evidence for decades.
- Increasing supply of people does not increase wages – it enables growth in the size of the market. The scope of this inquiry was to look at productivity, not increasing the size of the market.
- Government is not leading by example. Government spending represents a significant potion of our GDP, and the procurement principles restrict innovation. Adhering to risk minimising and efficient spending means no ability for local firms to invest in productivity or innovation. Allowing government procurement to focus on the best outcomes (spend wisely), rather than just keeping costs & risks low (spend less), could make a material difference.

I hope this submission adds value to the consideration of Frontier Firms as an influence on government policy for productivity and innovation. I am passionate about improving businesses in NZ through technology, and would welcome any requests for further discussion or information.

About Roger Ford
For the last three decades I have been at the forefront of building businesses and business communities in New Zealand, specifically in the software industry. From helping establish Oracle and Microsoft in New Zealand in the 90's, to growing businesses that today employ over 400 staff and generate significant export earnings. I was a founding mentor and judge for the University of Auckland business challenge, and have mentored/judged over 1000 startup businesses and teams. I have been the President of the NZ Software Association for the last 4 years, and served many requests from government departments and agencies to advise or educate on digital technology matters & policy.