

# Sustainable Economic Growth in New Zealand

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## 1. Introduction

Economic growth over the last two centuries has been foundational to the improvement in wellbeing of millions of the earth's inhabitants. During the three decades from 1990 to 2020, New Zealand appears to have been successful in achieving sustained economic growth. During the period from January 1990 to December 2019, New Zealand real average annual GDP growth has been 2.9% per annum. During the period from January 1990 to December 1999 it averaged 3.1% per annum; during the period from January 2000 to December 2009, it averaged 2.7% per annum; and during the period January 2010 to December 2019, it averaged 2.9% per annum (Reserve Bank of New Zealand, 2019). This apparent success leads to three questions: Is this accurate? How has it been sustained? Can it be sustained into the future? This paper addresses these questions on the basis of empirical evidence and professional and scholarly interpretation of the data. Addressing these questions requires careful consideration of conceptual issues and definitions followed by historical analysis of the recent history of economic growth in New Zealand. Following the introduction, the paper consists of a further six sections: Section 2 addresses the foundations of economic growth; Section 3 describes New Zealand experience of economic growth; Section 4 discusses the achievement of economic growth; Section 5 addresses the challenges to economic growth; Section 6 considers prospects for economic growth; and the paper concludes with Section 7 which presents lessons for New Zealand and other nations.

## 2. The foundations of economic growth

Interpreting data and interpreting policy addressing economic growth appears straightforward. "A country's standard of living depends on its abilities to produce goods and services" (Mankiw, 2008). Hence, "policy makers who want to encourage growth in living standards must aim to increase their nations' productive ability by encouraging rapid accumulation of the factors of production and ensuring these factors are employed as effectively as possible" (Mankiw, 2008). However, policy makers are wise if they read the relevant literature which identifies the complexities of economic growth. Macroeconomic settings and policy goals are important but so are culture and institutions, endowments, opportunities and constraints. Economic opportunities that facilitate growth, such as trade, are helped or hindered by access to resources such as finance, information, human capital, and technology. Innovation and the diffusion of ideas and technologies are impacted by social phenomena such as social capital, urbanisation, inequality, and the quality of institutions (Aghion and Durlauf, 2005). Further, positive reinforcement can reform growth as when human capital formation enhances growth via increased technology diffusion but likewise negative externalities resulting from growth, such a pollution can reduce growth due to requirements for mitigation or other activities.

Sustainable growth produces positive outcomes across decades and generations. It is persistent and does not have short-term gains at the expense of long-term losses. It provides increases in human wellbeing and

hence it requires the accumulation of human capital, cultural and social capital, natural capital, and financial capital.

### 3. New Zealand experience of economic growth

The New Zealand economy is relatively young with significant engagement with the wider world only commencing in the 1800s. Natural resource extraction and agriculture were important industries in the early decades of settlement (Hawke, 1985). Two world wars and the great depression did not help economic growth but despite these challenges midway through the 20<sup>th</sup> Century, the country had a population of two million people and a relatively high standard of living. However, economic performance stagnated in the middle of the 20<sup>th</sup> Century with the absence of “new” land to develop, the ongoing need for infrastructure, dependence on imports for the majority of manufactured goods, and the loosening links to the United Kingdom. Hence, it should be remembered New Zealand economic growth from 1990 to 2020 followed a long period of poor economic performance culminating in a significant period of reform through the 1980s. Dalziel and Lattimore (1999) wrote “the reform process was not initiated from overseas, but grew out of a widespread recognition that New Zealand was suffering from severe imbalances in its

fundamental macroeconomic indicators (the fiscal deficit and the balance of payments, in particular). This was reflected in slow economic growth rates and rising unemployment”.

The reforms were comprehensive. They addressed financial markets, goods markets, monetary policy, public sector reform (including trading organisations, government departments, taxation, budget, and health reforms), labour market deregulation, local government, and electoral reform (Evans, Grimes, Wilkinson and Teece, 1996). The reforms laid a platform for growth but there has been substantial debate about the approach taken, the merits of specific reforms, and the sequencing of reforms (Easton, 1997). Considerable economic pain was experienced during the transition. Some sectors such as agriculture were dramatically impacted by the reforms (Scrimgeour, 1996).

The outcomes of the reforms can be seen in three decades of consistent economic growth as shown in Figure 1, accompanied by a decline in unemployment and a more dynamic and flexible economy with fewer crisis events.

### 4. The achievement of economic growth

Economic growth in New Zealand has been built on a number of factors. Firstly, the endowment of natural capital is important. The World Bank (2011)

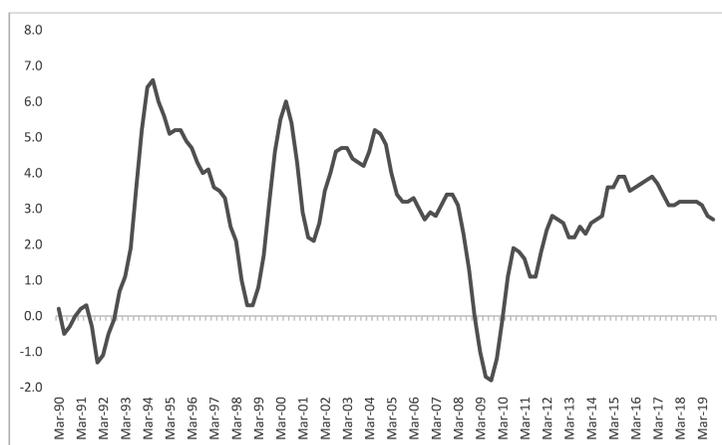


Figure 1: New Zealand economic growth (1990-2019)

Source: Reserve Bank of New Zealand (2019)

ranked New Zealand as 8<sup>th</sup> out of 120 countries for natural capital and 2<sup>nd</sup> out of all OECD countries for natural capital per capita. Secondly, it is appropriate to notice that the external environment has largely been favourable for the country. The terms of trade reported in Figure 2 show their favourable movement from a New Zealand perspective.

However, economic growth in New Zealand has not just come about by luck. Successive governments have pursued policies sustaining monetary independence (enshrined in the Reserve Bank Act, 1989) that has led to inflation successfully being kept in a tight band through the three decades as shown in Figure 3. Taxation policies have sustained a relatively

efficient regime. Public expenditure has been managed effectively maintaining consistency with monetary policies. Responsible public expenditure practice has been facilitated by the Public Finance Act 1989 and the Fiscal Responsibility Act 1991 (now incorporated in the Public Finance Act and including objectives for economic stability and fiscal structure as well as the original fiscal sustainability objectives). These policy settings have been complemented by ongoing investment in R&D, international trade negotiations, and trade facilitation. An important element of effective public policy and policy implementation has been the briefings to incoming Ministers of the Crown such as that to the Minister of Finance (The Treasury, 2017).

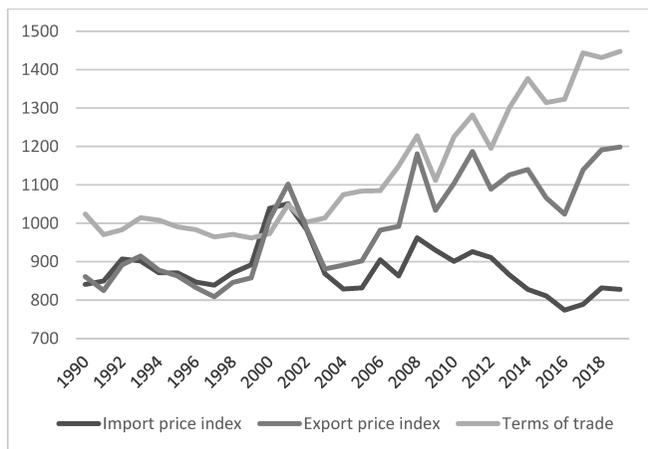


Figure 2: New Zealand real export and import prices (SDR terms)

Source: Statistics New Zealand Infoshare

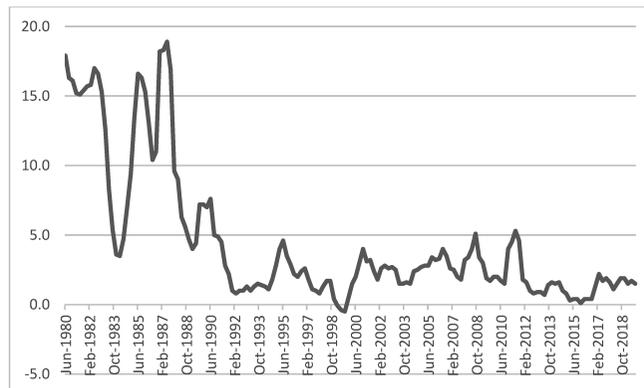


Figure 3: Four decades of inflation in New Zealand

Source: Statistics New Zealand Infoshare

In large measure business has been left to determine investment and other business decisions. Levels of business success can be seen in profits – demonstrated by increasing government tax receipts and decreases in the number of business failures. Tax receipts increased at a cumulative real annual growth rate of 3.2% per annum for the period despite the adverse impact of the GFC. However, sustained private sector growth does depend on innovation. Low reported levels of firm research and development cause concern but it should be noted the Global Innovation Index (based on moderated expert review and data analysis) ranked New Zealand at 15<sup>th</sup> of 141 economies (Ministry of Business,

Innovation and Employment, 2016). Innovative firms are more likely to engage internationally (51% in 2011) compared with 27% of non-innovative firms (Statistics New Zealand, 2011a).

Agriculture has in large measure thrived in the period since the reforms – especially the dairy sector. Figure 4 shows the growth in key export categories over the three decades.

This growth in volume has evolved as farm practice and intensity has changed. Figure 5 shows the changes in dairy farm numbers and sizes. Similar changes can be seen in the sheep and beef sector where the national sheep flock has declined but per animal productivity

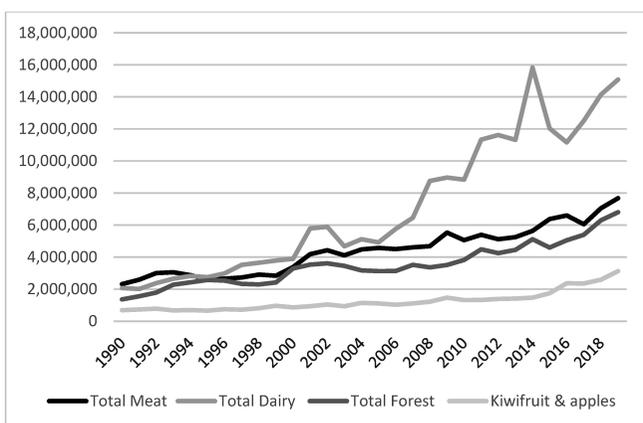


Figure 4: Value of principal exports (excluding re-exports) - June year  
Source: DairyNZ

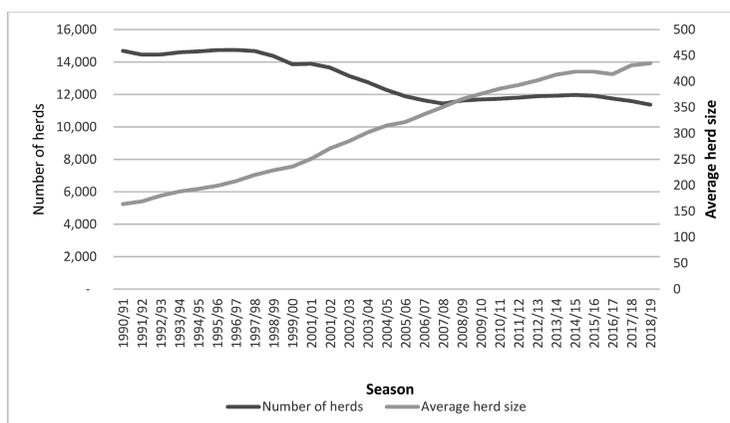


Figure 5: Number of dairy herds and average herd size

Source: DairyNZ

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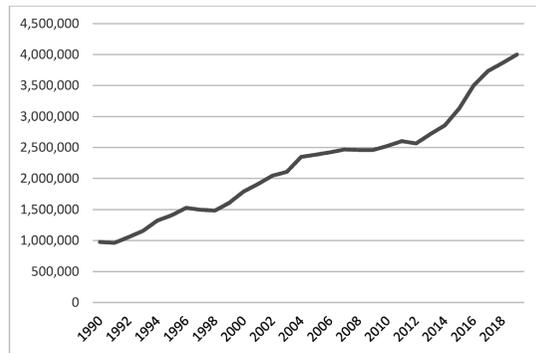


Figure 6: Visitor arrivals in New Zealand

Source: Statistics New Zealand Infoshare

has improved substantially (Scrimgeour, 2020).

Likewise, the tourism sector has grown significantly as shown in Figure 6.

### 5. Challenges to economic growth

Sustaining economic growth in New Zealand faces challenges on several fronts. Firstly, economic growth may not be what it appears. If incomes are increased but at the expense of environmental degradation or social problems then there is good cause to re-examine policy settings. Further, when these issues arise protagonists such as Kelsey (2015) are quick to articulate policies inimical to economic growth – even though there is no evidence they will achieve desired policy outcomes. More constructively, Oxley and Qasim (2020) develop genuine savings measures which take account of depreciation of reproducible capital, changes in natural capital, changes in human capital, damage from pollutants, adjustment of population changes, and augmentation by the present value of total factor productivity. These measures will be refined through time but at this stage they suggest lower growth rates than conventional measures – but they do not undermine the evidence that New Zealand has had a growing economy over the last three decades. They highlight the value in using 10 year moving average data for some aspects of performance reporting.

Maintaining credible fiscal settings is also a challenge. Hence, the value of the Public Finance Act (1989).

Political commitments in relation to limiting expenditure build political confidence but at times they can be an economic constraint. A larger problem is that it is easier to progress operational expenditure than capital expenditure in the public sector. This means that the timeliness of public expenditure can be a problem with respect to the business cycle. Further, when Government is anxious to stimulate the economy through increased government expenditure this expenditure can be of low quality given the lack of time to do the necessary preparatory analysis and planning. The problem is exacerbated when cabinet Ministers have minimal experience in managing significant budgets or projects.

Avoiding microeconomic retrogression is an ongoing challenge. Part of the electorate, often with income distribution concerns, argues for regulatory restrictions on firms and labour markets that limit flexibility and ultimately reduce both employment and profits. Governments have also moved to provide further regulations to increase health and safety in the work place. Such regulations where well designed are helpful in that it reduces the significant costs associated with workplace safety. However where such regulations fail to achieve their purpose, or are written in such a way they are unnecessarily costly they slow economic growth. This can be seen in the housing market where restrictive planning rules have unnecessarily increased housing costs and harmed welfare (Lees,

2019; OECD, 2019). The establishment of the New Zealand Productivity Commission was an important step in ongoing rigorous analysis of policy settings and consequences. This work is important because although New Zealand has experienced economic growth for three decades, productivity has been disappointing with average growth in labour productivity only being 1.3% per annum since 1996 (Nolan, Fraser and Conway, 2018). The Productivity Commission has identified two reasons for this. Firstly, there is a problem of “capital shallowness” associated with high long-term real interest rates, high off-the-shelf cost of capital goods, and fast population growth. Secondly, there has been “impaired reallocation and diffusion at the firm level” reflecting weak international connections, the small size of the domestic market, low investment in knowledge based capital, firms’ limited ability to learn, and weaknesses in the allocation of labour (Nolan, Fraser and Conway, 2018).

Unanticipated negative externalities have been an issue in New Zealand since the early days of settlement. Initial problems associated with inappropriate land clearance and management led to soil erosion and flooding. In the 20<sup>th</sup> Century, the emergence of manufacturing and cities led to industrial pollution. During the 20<sup>th</sup> Century, point source pollution was largely addressed through improved regulation but in the 21<sup>st</sup> Century the focus has moved to non-point source pollution, particularly from farming. Intensification of farming in some locations has led to significant environmental concerns (Ramilan, Scrimgeour, and Marsh, 2011; Yang and Sharp, 2019). Similar concerns have arisen in the tourism sector (Higham, Espiner and Parry, 2019). The major contemporary challenge is climate change and climate change policies. Without being sanguine about the risks of climate change, climate change policies are potentially a greater risk to the economy over the next three decades. With the existing emissions trading scheme having a marginal impact on most sectors of the economy and the Climate Change Commission only being established in 2019, the nature and impact of

climate change policies is not yet clear.

Economic growth depends on sustaining social cohesion. In New Zealand the economic growth of the past three decades has correlated with increases in inequality despite the improved employment statistics. A significant contributor to the problems in this area has been the increase in housing costs in the period since 2014, in part due to the substantial net increase in immigration into New Zealand. Addressing social cohesion through social welfare policies was a priority of the last National-led Government and has been taken further with the current Labour-led Government whose 2019 budget gave significant profile to expenditures addressing mental health issues, improving child wellbeing, and supporting Māori and Pasifika aspirations (New Zealand Government, 2019).

External shocks are always a check on any economy. New Zealand has not been immune. “As a small open economy, New Zealand is vulnerable to the impact of unexpected global economic events” (Callaghan, Cassion, Vehbi and Wong, 2019). In addition, as an agricultural economy, the country is sensitive to the weather. Further, the shape and location of the islands of New Zealand exposes the country to damage from severe storms. Earthquakes have taken their toll, especially in 2011, 2013 and 2016 (see [www.geonet.org.nz](http://www.geonet.org.nz)). The economic consequences have been significant in terms of costs, reprioritisation of expenditures, and the reduction of capital reserves. Statistics New Zealand (2011) provides one set of estimates of the costs of the Canterbury earthquakes.

## 6. Prospects for economic growth

Technological optimists (and some pessimists) often make projections concerning future growth of the New Zealand economy. However, Fernald and Jones’ (2014) comments concerning the USA economy applies equally well in New Zealand “such projections are at best a local approximation”. They wrote, “The roughly constant growth of the past century and a half does not mean the United States is on a steady-state path, and the past - even the recent past - could be a poor guide to

the future". New Zealand growth over the last 30 years does not mean it will continue into the future.

Although the past does not determine the future it does create both an economic platform and a knowledge platform that can facilitate positive outcomes in the future. This analysis suggests there is still opportunity for growth built on economic opportunity (global demand for protein), improved quantity and quality of inputs through advances in educational attainment, population growth and the quality of infrastructure which provides confidence regarding growth. When this is combined with coherent competition, fiscal and monetary policies and supported by efficient social and environmental policies then there is no reason why growth rates of the last three decades cannot continue into the future. Notwithstanding the fact that there is always risks of wars, earthquakes, and dramatic climate change that could change the world, as we know it.

## 7. Lessons for New Zealand and other countries

Economic growth in New Zealand during the last three decades has benefited from historic natural endowments and recent improvements in the terms of trade. However, taking advantages of these opportunities has required credible fiscal and monetary settings. These have largely been achieved as a result of fundamental features of institutional design features which have focused the activities, processes and reporting of the institutions of Government and the Reserve Bank. Sound fiscal and monetary policy settings are a necessary but not sufficient conditions for growth. Attention needs to be paid to the microeconomic experience and of the markets for labour and goods and services. Pressure groups will always seek to interfere with market functioning but analyses from the Productivity Commission and other analysts help political and official conversation as citizens, officials and politicians seek to address the challenges of the country. Activities of business and government do not occur in a vacuum but are part of the social life of communities and the nation. Hence, policies to address problems associated with poverty, mental health

problems or other social challenges and pathologies are essential to sustain growth policies. Further, economic growth occurs in the biosphere. Efficient policies to address negative environmental externalities are essential for ongoing economic growth and welfare, and to enhance the value of natural assets for the benefit of human society and other species. Finally, economic activity occurs in a world of shocks and it is important that policies include sufficient adaptive capacity so that shocks can be addressed in a timely way, with minimum disruption.

## References

- Aghion, P and S. Durlauf, (editors). *Handbook of economic growth*. North Holland, Amsterdam, The Netherlands, 2005.
- Callaghan, M., E. Cassino, T. Vehbi, and B. Wong. Opening the toolbox how does the Reserve Bank analyse the world? *Reserve Bank of New Zealand Bulletin*, Vol. 82, No. 4, April 2019.
- Dalziel, P. and R. Lattimore. *The New Zealand macroeconomy: A briefing on the reforms*, 3<sup>rd</sup> Edition, Oxford University Press, Auckland, New Zealand, 1996.
- Easton, B.H. *The commercialisation of New Zealand*. Auckland University Press, Auckland, New Zealand, 1997.
- Evans, L., Grimes, A., Wilkinson, B., and Teece, D. Economic Reform in New Zealand 1984-95 The Pursuit of Efficiency. *Journal of Economic Literature*, 1996, Vol. 34 (4) 1856-1902.
- Fernald, J.G. and C.I. Jones. The future of US economic growth. *American Economic Review: Papers & Proceedings* 2014, 104 (5) 44 - 49.
- Hawke, G. *The making of New Zealand: an economics history*. Cambridge, Melbourne, 1985.
- Higham, J., S. Espiner and S. Parry. *The environmental impacts of tourism in Aotearoa New Zealand: A spatio-temporal analysis*. Report prepared for Parliamentary Commissioner for the Environment, Wellington, 2019.
- Kamber, G., C. McDonald and G. Price. *Drying out: Investigating the economic effects of drought in New Zealand*, Reserve Bank of New Zealand Analytical Note

- AN2013/02, Wellington, 2013.
- Kelsey, J. *The fire economy*, Bridget Williams books, 2015, Wellington, New Zealand 2015.
- Lees, K. Quantifying the cost of land use regulation evidence from New Zealand. *New Zealand Economic Papers* 2019, 53 (3) 245-269.
- Mankiw, N. G. *Principles of economics*, 5<sup>th</sup> edition, South-Western Cengage Learning, Mason, Ohio, USA, 2008.
- Ministry of Business, Innovation and Employment (2016). *What we know (and don't know) about economic growth in New Zealand*. Retrieved from <https://www.mbie.govt.nz/dmsdocument/4028-what-we-know-and-dont-know-about-economic-growth-in-new-zealand>
- New Zealand Government. *Budget at a glance: The wellbeing budget*, Wellington, New Zealand Government, 2019.
- Nolan, P., H. Fraser, and P. Conway. Moving on from New Zealand's productivity paradox. *Policy Quarterly*, 2018 14 (3) 3-9.
- OECD. *OECD economic surveys: New Zealand*, OECD, Paris, France, June, 2019.
- Oxley, L and M. Qasim. On sustainable development. Chapter 7 in *Public policy and governance frontiers in New Zealand* (Editors Evan Berman and Girol Karacaoglu). Emerald Publishing Group, Bingley, UK, 2020.
- Ramilan, T., F.G. Scrimgeour, and D. Marsh. Analysis of environmental and economic efficiency using a farm population microsimulation model. *Mathematics and Computers in Simulation* 2011, 81 1344-1352.
- Reserve Bank of New Zealand. M5 Gross Domestic Product data accessed at <https://www.rbNew Zealand.govt.nz/statistics/key-graphs/key-graph-real-gdp> 21 Dec 2019.
- Scrimgeour, F.G. and E.C. Pasour, Jr. A public choice perspective on agricultural policy reform implications of the New Zealand experience. *American Journal of Agricultural Economics*, 1996 (78) 1-11.
- Scrimgeour, F.G. Agriculture – continued strength. Chapter 5 in *Public policy and governance frontiers in New Zealand* (Editors Evan Berman and Girol Karacaoglu). Emerald Publishing Group, Bingley, UK, 2020.
- Statistics New Zealand (2011). *Impact of the Canterbury earthquakes on New Zealand's gross domestic product*. Wellington Statistics New Zealand. Retrieved from [http://archive.stats.govt.nz/New Zealand/browse\\_for\\_stats/economic\\_indicators/GDP/impact-canterbury-earthquakes-New Zealand-gdp.aspx](http://archive.stats.govt.nz/New Zealand/browse_for_stats/economic_indicators/GDP/impact-canterbury-earthquakes-New Zealand-gdp.aspx)
- Statistics New Zealand (2011). *Innovation in New Zealand*. Retrieved from [http://www.stats.govt.nz/New Zealand/browse\\_for\\_stats/businesses/business\\_growth\\_and\\_innovation/innovation-in-new-zealand-2011.aspx](http://www.stats.govt.nz/New Zealand/browse_for_stats/businesses/business_growth_and_innovation/innovation-in-new-zealand-2011.aspx).
- Steenkamp, D. How volatile are New Zealand's terms of trade? An international comparison. *Reserve Bank of New Zealand Bulletin*, Vol. 77, No. 2, June 2014.
- The Treasury. *Briefing for the incoming Minister of Finance*. October 2017. The Treasury, Wellington, New Zealand.
- World Bank. (2011). *The changing wealth of nations: Measuring sustainable development in the new millennium*. Retrieved from <http://www.data.worldbank.org/data-catalog/wealth-of-nations>.
- Yang, W. and B. Sharp. Spatial analysis of dairy yields response to intensive farming in New Zealand. *China Agricultural Economic Review* 2019 11 (1) 79-99.