

Observations on the Real Economy in New Zealand: Interactions of Complexity, Scale and Globalisation in a Small, Open Economy

John L. Walley
September 2016

Prepared for Ann Pettifor of Prime Economics
and The Policy Observatory,
Auckland University of Technology

AUT

About this report

This report is one in a series prepared for Ann Pettifor's visit to New Zealand in September 2016. The reports provide background information on challenges facing the New Zealand economy and society, and are available on The Policy Observatory website.

The Policy Observatory would like to thank Auckland University of Technology Vice-Chancellor Derek McCormack for sponsoring Ann's visit to New Zealand as an AUT Distinguished Scholar. Ann, a specialist in Keynesian monetary theory, is Director of Policy Research in Macro-Economics (PRIME), based in London. We would also like to thank John Walley, the author of this report, as well as the other contributors to this series.

The Policy Observatory

Auckland University of Technology
Private Bag 92006
Auckland 1142

policyobservatory@aut.ac.nz
+64 9 921 9999 extn. 7531
<http://thepolicyobservatory.aut.ac.nz/>

Recommended citation: Walley, J.L. (August, 2016). Observations on the real economy in New Zealand: Interactions of complexity, scale and globalisation in a small, open economy. Auckland: The Policy Observatory.



This paper is covered by the
Creative Commons Attribution License 4.0 International

Observations on the real economy in New Zealand: Interactions of complexity, scale and globalisation in a small, open economy

By John L. Walley

New Zealand was the first country to embrace inflation targeting, along with a raft of other policies that have come to be known as the broad neoliberal policy approach. In contrast to the northern hemisphere, in New Zealand many of these changes were championed by the left of politics, and has become the entrenched position, for the most part, across our political spectrum for the past thirty odd years. Has this period of political thought delivered the promised well-balanced improvements in our economic wellbeing, and what has been the outcome for the productive sectors of our economy?

What happened to the tradeable sector?

New Zealand, along with most of the Anglo Saxon world, has offshored a significant amount of productive activity since 1985. This accelerated when import tariffs were abandoned for most manufactured and agricultural goods. What manufacturing activity existed prior to the 1985 was targeted at rural support and infrastructure: road, rail and power generation plus some vehicle and consumer durable manufacturing that could only function behind significant licencing and import tariff barriers.

Some types of pre-1985 activity, particularly high volume consumer products, were quickly replaced by imports, and in the longer term more and more activity moved to low-cost countries. In a small economy local supply chains have found it hard to sustain themselves as volume fell through the 1990s, and as volume falls skills, capability and competitiveness become increasingly hard to sustain.

Many manufacturers in New Zealand did, and still do, have supply chain positions within the domestic market, even for goods that are finally exported. This dependence means that the loss of capability early in a supply chain can have a broader impact on the ability to compete via downstream effects on the manufacturing ecosystem - one more recent example of this was the loss of local manufacturing capability related to the rail industry in Dunedin.

Observations on the Real Economy in New Zealand

There are pockets of success with some specialised products where New Zealand producers of elaborate goods do well in global niche markets but these successes cannot fully offset the decline in well-paid employment and elaborate product export revenue. New entrants are more likely to produce offshore, often not by choice: design, development, prototyping and early production can and do happen in New Zealand but the loss of local volume production activity generally happens at some point.

Manufacturing valued added as a percentage of GDP in New Zealand has fallen significantly in the past 30 years; 27% in 1982, falling to 11.9% in 2012. Employment in manufacturing has fallen in terms of full time equivalent employees - from 224,600 at the end of 1989, to 175,100 in the second quarter of 2016. Since 2009, employment has been more stable around this 170,000 level.¹

But weekly incomes in manufacturing are higher than all industries both in average and median terms.² Had New Zealand maintained manufacturing activity closer to 30% of GDP, much like Germany managed to do over the same period, average incomes would now be substantially higher.

Meanwhile, employment has increased in some sectors with lower earnings, such as tourism.

How have high value elaborately transformed exports performed?

In real terms since the mid 1980s exports, as a percentage of GDP, have been largely static at around 30% of GDP. Perhaps holding your own in a competitive world such a headline looks more than reasonable, in comparative terms. In the last decade, this has been due to particular success in processed primary exports, boosted by the Free Trade Agreement with China, but high-value simply and elaborately transformed goods have not shown the same growth.

An intent to grow exports in relation to GDP has been voiced by government after government, from both sides of politics, but not much changes. Most recently the National-led government's target of raising exports to 40% of GDP by 2025 looks to many to be just as unattainable. Without the necessary investment and macroeconomic policy focus to encourage structural changes in the economy that would trend toward that goal, the target is not much more than wishful thinking.

Looking more into the detail and breaking out the performance of the tradeable and non-tradeable sectors we can see the two sectors grow together into the early 2000s. Since then tradeable growth has stalled or even contracted a little, while the non-traded sector has continued to grow at close to historical trend rates.³

¹Statistics New Zealand. Infoshare: Work Income and Spending: Earnings and Employment Survey (QES): Full-Time Equivalent Employees by Industry (ANZSIC06) and Sex (Qrtly-Mar/Jun/Sep/Dec). <http://www.stats.govt.nz/infoshare>

²Statistics New Zealand. (2015). Income tables: Earnings from main wage and salary job by industry (ANZSIC2006), sex, and broad age groups (2009 onwards). Available from http://www.stats.govt.nz/tools_and_services/nzdotstat/tables-by-subject/income-tables.aspx

³New Zealand Manufacturers and Exporters Association. Manufacturing in New Zealand http://www.nzmea.org.nz/documents/1331-manufacturing_in_new_zealand.pdf Original Source, NZ Treasury <http://www.treasury.govt.nz/publications/research-policy/wp/2011/11-01>; Exports by Level of Processing, Source Statistics New Zealand. Infoshare: Imports and Exports: Exports, Summary Data: Level of Processing 2 digits (annual - Jan).

The implications for economic growth?

Different types of productive activities require different levels of skill and capability, from simple stuff easily replicated and subject to low cost of entry, low skill competition, through to complex stuff that requires years of experience and deep supply chains with hard won capability. The measure of economic complexity indicates the ability and capacity to make things that are hard to make or are new, speaking to the ability of an economy to increase value in the future.

When breaking up exports into different types of production according to the level of processing, it is clear that as a primary and processed primary producer (milk, meat, wood, fish) expansion in real terms has been achieved. However, in terms of simple or elaborately transformed goods, the news is less encouraging; exports are static in nominal terms over the long run. The implication is that the New Zealand economy is evaporating complexity, and with it the capability and capacity to make complex new things and compete in value-based markets.

The Economic Complexity Index (ECI) assesses economic complexity:⁴ the higher the value, the more complex the country is in terms of economic activity. As examples, activities which contribute the most to economic complexity are Machinery (2.54 ECI), Chemicals and Health (2.52 ECI) and Electronics (2.25 ECI), whereas the industries that have the lowest values are Cotton, Rice, Soy and Others (-2.3 ECI) and Oil (-2.1 ECI).

1982 ECI compared with 2014 ECI				
<i>Country</i>	<i>Change in Ranking</i>	<i>Change in ECI</i>	<i>ECI 2014</i>	<i>Ranking 2014</i>
Singapore	19	0.96	1.73	8
South Korea	12	0.54	1.74	6
Germany*	9	0.17	2.05	3
Japan	0	0.10	2.25	1
Switzerland	1	0.09	2.10	2
Finland	1	0.07	1.74	7
United States	-1	-0.21	1.80	5
Denmark	-4	-0.09	1.26	18
United Kingdom	-6	-0.28	1.60	11
New Zealand	-8	0.12	0.70	39
Australia	-13	0.04	0.30	56
Canada	-13	-0.44	1.20	23
*Note: Germany data before 1991 not available.				

⁴Harvard University Centre for International Development. The Atlas of Economic Complexity. <http://atlas.cid.harvard.edu/rankings/>

Observations on the Real Economy in New Zealand

On the ECI scale (2014), New Zealand is ranked 39th with an ECI of 0.70. When we compare New Zealand value with countries who are biased toward added value, we score much lower: Japan (2.25 ECI), Germany (2.05 ECI) and Switzerland (2.10 ECI). This is important because complex enterprises have positive flow-on effects to the economy which goes on to build further network effects. This means having access to all the business activities and services required to provide all the products and services needed to support differentiated supply chains, manufacturing activities and production processes.

The US sits at 1.8 ECI, due to their large technology sector; military, pharmaceuticals, space, motor vehicle and aviation, while Australia is much lower at 0.30 ECI, due to their reliance on the mining sector. New Zealand has experienced an increase in ECI since 2010, likely due to the significant increase in process primary exports and some success with newer tech companies. Between 2000 and 2010 New Zealand's ECI ranged between 0.1 and 0.35.

Those countries with a focus on the real economy tend to higher complexity and a more competitive economic performance.

Net International Investment to GDP		Current Account Balance to GDP			External Balance Goods and Services to GDP		
Country	2015	1980	1990	2015	1980	1990	2015
Singapore	204	-13.1	8.0	19.7	6.95	12.84	26.87
Switzerland	92	-0.6	3.4	11.4	-2.73	5.03	10.43
Japan	68	-1.0	1.4	3.3	-0.95	1.45	-0.97
Germany	48	-1.7	2.9	8.5	-4.86	0.31	7.81
Canada	23	-2.2	-3.3	-3.3	1.85	5.03	-2.31
South Korea	14	-8.3	-0.5	7.7	-7.9	2.86	6.96
Finland	-4	-2.7	-5.0	0.1	-1.32	-1.55	0.32
United Kingdom	-14	0.7	-3.5	-4.3	2.45	-1.85	-1.97
United States	-41	0.1	-1.3	-2.7	-0.45	-3.69	-2.95
Australia	-57	-2.4	-4.8	-4.6	0.48	-1.99	-1.41
New Zealand	-60	-4.0	-3.5	-3.0	-1.13	1.75	0.71

It also clear that the long term decline in the economic complexity is associated with those economies that have embraced financialisation and abandoned any industrial, monetary and fiscal policy efforts that would have encouraged the existing industrial base to focus on domestic efforts around challenging complex activities with a major export component.

The threats associated with falling complexity?

Growth only in primary and processed primary activities concentrates risks; such growth has clear limits in terms of environmental sustainability along with the ups and downs, currently a very down period, associated with commodity markets. At the extreme end of risk to agricultural commodity products is the inevitable progress in biochemistry that threaten the supply of laboratory sourced meat and milk products.

Right now the threat to agricultural commodities are persistent low prices. The future could see wholesale substitution by low cost laboratory sources. Add in the decline in real terms of simple and elaborately transformed export categories and our strategic weakness is clear.

What are the problems of scale?

The operating environment associated with a small economy with the absence of local scale creates a major structural challenge for niche operators. The limited local market means that specialty firms, and their associated supply chains, must export early in their growth cycle. It is not unusual for firms employing 30 people to earn more than half their revenue from exports. As a result, significant currency risk comes early for New Zealand firms. It is worth noting that fewer than 1000 firms have export revenues more than NZ\$5m.

This means that policy settings that influence the exchange rate, important to exporters in large economies, are critical for New Zealand's exporters. Sadly, the Government's Policy Targets Agreement with the Reserve Bank of New Zealand and our tax framework act to elevate the exchange rate in the long term, and falling earnings challenge investment. The absence of capital gains tax, the presence of negative gearing, and the inflation targeting paradigm are so ingrained that forecast inflation (which never happens) still needs to be targeted. By all means lament what happens to the currency and ever increasing house prices but never do anything that is really effective about either.

The upshot is a long run overvalued currency.⁵ Since 2004 the exchange rate has been systemically higher than the previous decade by around 13%, essentially a wealth transfer to the domestic financial economy from the tradeable sector. This is no small difference, and represents huge pressure on real economy margins, profitability, reinvestment and competitiveness. For both exporters and for those competing in the domestic market against imports made even cheaper by the currency. The knock on to employment and median wages is manifest in social outcomes. The loss of skills, capability and investment makes for ever greater recovery challenges in the future.

⁵ Michael Reddell. (22 July 2016). Monetary Policy and the Exchange Rate. Blog. <https://croakingcassandra.com/category/exchange-rate/>

Observations on the Real Economy in New Zealand

For an economy like New Zealand's that lacks the natural resilience of scale, industrial policy is all the more vital, we need to move past the days of 'just let it happen'. We can avoid the picking winners trap by supporting winning behaviours in general. Even small economies are far too complex to pick winners but it is possible to help with activity-based support, for example tax credits on research and development and general tax policy that encourages investment in the real economy as opposed to real estate - and of course the elephant in the room: better management of the exchange rate and capital flows.

Globalisation and New Zealand?

The loss of capability, the absent capacity, and polarisation of earnings in New Zealand is not unique. The benefits of globalisation can be real but are diffuse. The problems are focused and clearly visible around the world - the rust belt in the USA, the North of England - those same problems are here in New Zealand. Popular sentiment has demonstrated we have not done enough to address the needs of those communities who feel the downside. More insidious is the loss of activity when new ideas are not rooted in the community that helps generate them; it is hard to measure the loss of activity that establishes and grows somewhere else from inception.

Trickle down has failed; austerity is seen to hit those who depend on state spending. Governments fixated on balancing their budgets while private debt balloons reduce aggregate demand, leading to low growth or recession. The politics of deflation differ significantly from what we have now: private debt stunting growth and the inability to inflate away the burden of debt will require new solutions.

Where to now?

A move away from a policy framework that relies on wealth generated from asset rents, or more broadly the financial economy; to wealth based on providing well-paid demanding employment, supplying real things that customers value, an economy that invests in infrastructure, a real economy that works for more people will drive tomorrow's politics.

Despite the experience of the last thirty years, there is a future for producing real things that are hard to make, as demonstrated by those countries who report increasing ECI and continue to build capability. This requires a change in broad policy bias: in education, industry, science, fiscal and monetary policy. All have a role to play.

About The Author

John Walley has broad experience of international manufacturing and distribution companies in the marine, vehicle, electronics and software sectors. He is a Director and shareholder of Imarda, PowerHouse Ventures, and ProActive Software (Chair), he has a number of investments in high technology companies including Adherium. After 16 years he retired as the CEO of the New Zealand Manufacturers and Exporters Association in March 2015, a former director of Hamer, Stabi Craft Marine, Industrial Research, Crop Logic, Modlar, and past chair of Canterprise and NanoCluster Devices. Previously an executive director of the Gallagher Group, manager, engineer with Thorn EMI, Rolls Royce Motors and the General Electric Company in the UK. He holds an Honours Degree in Electrical Engineering, is a Chartered Engineer and a Fellow of the NZ Institute of Professional Engineers, the NZ Institute of Management and a Member of the UK Institute of Electrical Technology.

About The Policy Observatory

Based at Auckland University of Technology, The Policy Observatory is a lens on public policy in Aotearoa New Zealand. We both conduct and commission research on economic, social and environmental policy issues, with the intention of publishing results in a form that is accessible to the general public. We work in a collaborative, networked way with researchers across institutions and in the private sector. Ultimately, we are concerned with how policy advances the common good.