

## **No More than a Case of Beer? TPP Trade Liberalisation Benefits for New Zealand**

*Analysis by Professor Tim Hazledine, University of Auckland Business School, of the economic modelling for MFAT of the effects of the TPP on the NZ economy*

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### ***What countries want from trade and trade negotiations***

With two interesting exceptions, the nations of the world have been staunchly mercantilist throughout their 70-year trek to reduce the barriers to international trade and commerce. At the end of the War, everyone knew what had to be done. The mutually destructive import tariffs of twenty or thirty percent or more that countries had thrown up in the 1930s in a desperate attempt to protect domestic industry from the Great Depression had to come down, and Keynes and his colleagues had, in their 1944 meetings at Bretton Woods, set up the international institutions that would facilitate this, including what became the series of multilateral negotiations, or Rounds, of the General Agreement on Tariffs and Trade (GATT) – replaced on January 1, 1995 by the World Trade Organization (WTO).

Even so, it took seven completed Rounds over nearly half a century to wrangle the cuts that would reduce tariffs to the low-single digit figures or less that are typical in at least the developed countries among the twelve who negotiated the TPPA. Why so protracted a process? Given that standard economic theory tells us that tariffs reduce the efficiency of a country's economy by distorting the price signals that determine the appropriate allocation of scarce resources, why hadn't the 23 original signatories to the First Geneva/Havana Round in 1948 (including NZ), quickly agreed to a simple formula whereby everyone would reduce all their tariffs by some percentage  $x$  per year until the goal of zero tariff protection was reached?

Why, indeed, did they have to even come to an agreement on trade liberalisation? If imposing tariffs on imports is – as per standard theory – akin to “shooting yourself in the foot”, why not just stay at home and cut tariffs by themselves?

Well, so much for standard economic theory. These countries knew better. If they were competently advised on economic matters they would have been told that “shooting yourself in the foot” with import tariffs is hyperbole – a more accurate metaphor would be stubbing your big toe on a stone – painful but not long-term mobility threatening. This is because the posited efficiency gains from tariff cuts apply – as do all effects predicted by neoclassical economic theory – only at the margin of small increases and decreases in resources allocated to different uses, yielding “deadweight triangles” of gains and losses. In a well-functioning mature market economy, and especially after

tariffs have been reduced to single-digits, these deadweight losses will be a quite tiny percentage of total GDP – “a case of beer per person per year” as one sceptic put it.

The countries negotiating their way through the successive GATT Rounds had bigger fish to fry. They sought major industrial development for their economies and societies, which in particular meant protecting their own manufacturing sector from import competition whilst seeking the widest possible opportunities for domestic firms to penetrate other countries’ markets. That is, all these countries, including New Zealand, were basically mercantilist, and *Exports Good; Imports Bad* is the mercantilists’ mantra.<sup>1</sup>

From an historical perspective, mercantilism makes huge sense, and indeed is the only development model that has been generally successful, outside the small trading city states of Singapore and Hong Kong. It can be botched, usually when state governance capacity is weak, and/or the prevailing culture insufficiently commercial in spirit. Examples of failure can be found in Latin America and, perhaps, India. But the great development success stories of modern history all hew to the mercantilist model: first Britain in the early nineteenth century; then America and Germany from around 1870; Nazi Germany and Soviet Russia in the middle of the 20<sup>th</sup> century; then the post-war procession of Japan, Korea, Taiwan and now China pulling their people out of poverty and into modern prosperity.

So this is why multilateral trade negotiations are so fraught: each country seeks to gain the maximum market access concessions from the others, while giving up as little as possible in the way of protection of their own domestic industry. It is only because the outcome has generally been win/win in the long-run that negotiations have eventually been concluded successfully, but it is no wonder that they take so long. Such is the context for the TPPA, whose likely economic impact we need to assess.

### ***The Exceptions***

I mentioned that there have been two exceptions to the export-oriented (one could say export-obsessed) mercantilist approach to trade and development policy and negotiations. These exceptions were important, but not long-lasting. They both took place in the 1980s, and came out of two countries: Canada and New Zealand. In each case the economic focus was switched from exports to imports: in particular to try to

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<sup>1</sup> Except for imports of the raw materials needed to convert into exportable manufactures, whose tariffs should be set as low as possible – ideally, zero. Indeed, the policies of the imperial powers towards their colonies have often, in effect, imposed negative tariffs on them – forcing the dependencies to specialise in monocultural export commodity production, and then, when their capacity to feed and clothe themselves has been destroyed, to shift the terms of trade (i.e. force down the export prices of commodities) in favour of the rich importers. These policies have continued even after the colonies gained their political independence (Chang, 2010, pp116-9).

extract more than the proverbial case of beer in the way of benefits from unilateral opening of the economy to competition from cheaper imports.

The Canadian case is fascinating. It is perhaps the most important example – perhaps the only truly important example – of pure technical economics determining a major policy initiative, this being the Canada-US Free Trade Agreement (CUSTA), signed by the leaders of both countries on January 2, 1988, and covering what were then and still are the largest bilateral trade flows in the world – currently running at around \$US700billion/year (exports+ imports).<sup>2</sup> Canada then as now was a major industrial economy, with the seventh largest manufacturing sector in the world (an order of magnitude larger than NZ's manufacturing industry). The problem – as the Canadians saw it – was that they shared the world's longest border with the largest industrial economy in the world, with its manufacturing sector an order of magnitude yet larger than Canada's. So why was this a problem? Well, there was also a “smoking gun” (or perhaps an “elephant in the room”) – a persistent 10% or so gap in the per capita incomes of Canadians and Americans, on average. Could these facts be linked causally? Since the 1950s, something of a “Canadian School” of industrial economics had developed, explaining lower incomes north of the border in terms of the smaller size of the then tariff-protected domestic market, through the inability of Canadian manufacturing firms to expand to efficient scale within its confines. Putting it another way: the tariff allowed an inefficiently large number of too-small firms to survive locally, at a cost in lower productivity. The idea grew that cutting or even eliminating tariffs on imports from the US would lower Canadian market prices by the same amount, and thereby induce - indeed, force - local industry to rationalise and lower its costs to compete, which they would be better placed to do with similar tariff-free access to the huge US domestic market.

With support from the Ministry of Finance, in Ottawa, two Queen's University economists – Richard Harris and David Cox – were the first, in the early 1980s, to embody this idea in a computable general equilibrium (CGE) model of the type that was then becoming standard in trade policy analysis. Their model predicted massive improvements in Canadian manufacturing productivity from bilateral free trade, sufficient indeed to wipe out the overall 10% per capita income deficit with the US, but without harming the US.

I was working in Canada in those years, and I followed the matter closely, in particular because my own empirical research into pricing by Canadian firms (Hazledine, 1980), gave at most qualified support to some of the key behavioural assumptions in the Harris-Cox model. It was quite clear – from written and oral evidence – that the Dept of Finance, having been convinced by the modelling that free trade would deliver

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<sup>2</sup> Five years later, in 1993, the Agreement was expanded to include Mexico, and became the North American Free Trade Agreement (NAFTA), which remains in place today.

productivity parity, and were able to “sell” the proposition as a Big Legacy-Making Idea to the then Prime Minister, Brian Mulroney, who then set off to Washington to ask Ronald Reagan to authorise joint negotiations to effect a bilateral free trade agreement. President Reagan wasn’t particularly interested (nor in Canada, generally) but he couldn’t see much harm in the notion, and good-naturedly gave his buddy Brian that which he sought.

The Americans assigned the role of their Chief Negotiator to a relatively junior State Department official, Peter Murphy. This was a mistake. The much keener Canadians enticed out of retirement the formidable Simon Reisman, who in 1965 had negotiated the Canada-US Auto Pact – itself perhaps the most successful industry-based treaty ever signed.<sup>3</sup> Murphy was no match for the wily Reisman; the Canadians got just about everything they had wanted, and Murphy indeed died, sadly, quite soon after CUSTA came into effect.

So what happened in Canada and what can we learn from it? In the 1990s US-Canada (and, eventually, US-Mexico) trade flows expanded significantly (perhaps more than would have been predicted by a “standard” CGE analysis such as Strutt, Minor and Rae (SMR) have constructed for the NZ government. However, the US/Canada income gap remains stuck at 10%. Perhaps free trade is not the answer here.

The Harris-Cox model was always controversial amongst trade specialists (which Harris and Cox were not).<sup>4</sup> Leading US trade economists from the University of Michigan evaluated the likely consequences of CUSTA with a more standard CGE model, which predicted overall *losses* to Canada, simply because Canadian tariffs were higher than US tariffs at the border, such that Canada would suffer terms-of-trade losses from free trade (Brown and Stern, 1987). The terms of trade issue is, I believe, key to evaluating the trade implications of the TTPA, and I will return to it.

The rather wild assumptions of the Canadian School appear to be discredited both by events and by their incongruence with the theory and empirical evidence of specialists in Industrial Economics or Industrial Organization (IO), as is known the field of economics (to which I contribute) that focusses on the behaviour of oligopolists – the 2 to 4 largest firms which produce most of the economy’s GDP in markets in which they hold combined market shares of 85-90 percent or more. It would be a pity, though, if this has discouraged trade policy analysts from injecting more realistic oligopoly behavioural assumptions into their CGE (and other) models. I have not been following

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<sup>3</sup> The Auto Pact to this day has ensured that Canada has a large and efficient motor vehicle assembly and parts industry paying excellent wages to its Canadian workers and delivering good profits to its (largely, but not solely US) owners.

<sup>4</sup> For those interested, the Canadians posited extreme collusive pricing in product markets alongside free entry in input markets – assumptions which would not usually be made in tandem

trade modelling closely since the CUSTA affair<sup>5</sup>, but it appears from the (extremely limited) documentation of the SMR CGE model (which however I take to be representative of best current practice) that the field has barely progressed intellectually over the past 30 years, remaining wedded to simple or simplistic or just wrong assumptions about a world economy made in the image of the “perfect competition” textbook ideal type (or its close substitute, what is called – somewhat confusingly to laypersons – “monopolistic competition”).

Not just in passing, it is worth noting that over the last twenty or so years, perfect competition-based CGE models have – quite surprisingly – become the dominant analytical tool used by macroeconomists, being those of us who focus on the “big numbers” of the economy – inflation, GDP, total employment. I say this is surprising because the underpinning assumptions are even less suited to studying macroeconomic fluctuations than they are appropriate to trade and trade policy. Dynamic computable general equilibrium models are quite useless to predict, explain, or remedy phenomena such as mass unemployment, widening distribution of income, the Global Financial Crisis, and why some nations are much richer than others and continue to be so.

Returning to our trade story: the other notable deviant from mercantilist orthodoxy trade policy during the 1980s was New Zealand. As part of the “Rogernomics” policy revolution that began in 1984, the NZ government almost gleefully wiped out tariff and other impediments to imports, with no thought at all about securing equivalent liberalisations from our trading partners. This also was done in the name of textbook perfect competition doctrine: if (by assumption) we take as given the prices we pay and get on world markets, then the most efficient short-run allocation of resources internally will be achieved if we don’t place any tariff or non-tariff wedges between world and domestic prices.

The best that can be said for unilateral liberalisation in a small country is that it may prevent resources from being allocated to silly uses. But it does not ensure that resources will be put to use at all, and to a wounding extent they weren’t. As I put it once (in a letter to *The Economist*): in NZ we created a level playing field but nobody turned up to play! Indeed, a lack of productive investment was identified by NZ Treasury as the main culprit in explaining the income gap with Australia, which was less than 10% at the start of the Rogernomics regime shift, but which quickly opened up to the 25-30% shortfall that remains today.

For twenty or so years after Rogernomics ran out of steam our trade negotiators were somewhat embarrassed by having little or nothing to bargain with. However, we may have circumvented this difficulty in the TPP process by in essence free-riding on the

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<sup>5</sup> My own IO research over the past decade or so has focussed on oligopolistic pricing and competition in services – in particular, passenger air travel markets.

concessions granted to each other by the other eleven countries in the process. I do however hope that our negotiators, with no significant tariff or non-tariff barrier (NTB) bargaining chips to play, were not cajoled into putting other concessions on the table, in the areas of the TPP on which I am not here commenting.

My overall conclusion on the two isolated but interesting episodes of import-focussed liberalisation in Canada and NZ are that these were not the source of fruitful improvements in domestic economic performance. However, it's a done job now in New Zealand – our tariffs are almost universally at or near zero – which necessarily puts the focus onto the TPPA gains we can expect from our exporting activities.

### ***Who pays the tariff?***

I will now suggest that there is just one question to which the answer is key for predicting likely gains or losses from the TPP: *Who pays the tariff?* The question is key in the following sense: If we can answer it well, then even the simplest back-of-the-envelope (BOTE) calculation of the overall gains or losses will get us close enough (ie probably within the range of likely modelling error) to the answer that would be generated by a massive multi-equation CGE modelling exercise. Conversely, a bad answer will render the latter model quite useless, no matter how many hundreds of commodities, countries and sectors it is disaggregated to.<sup>6</sup>

There is a curious confusion around the issue of who pays the tariff. People are confused in the sense of apparently not realising that they are confused. MFAT has told us that the TPP will result in “tariff savings of \$259 million a year” (on current trade volumes) when fully implemented. I have read in the press industry leaders in various export sectors talking enthusiastically of the share of these savings that will accrue to the products they sell abroad.

I believe that a reasonable interpretation of these statements is that, in effect, they believe we pay the tariff, such that not having \$259 million tariffs levied on our exports is as good as having \$259 million cash in our hands.<sup>7</sup> But this would occur only in a pure price-taking situation, in which NZ exporters supply a very small proportion of an export market big enough and simple enough to have a market price which our (very small) supplies cannot affect.

Such situations may exist, but they are probably rare. There may be homogeneous products, but there are no homogeneous transactions, and it is the whole package of

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<sup>6</sup> In Hazledine (1989, 1990) I demonstrated in a stylised CGE model setting how free trade gain numbers differ widely depending on the assumptions made about who pays the tariff.

<sup>7</sup> I have a minor puzzle with these numbers. They make up 1.3% of the current value of NZ exports to TPP markets. Strutt *et al* give the difference in Scenario A tariff equivalents – which include some NTB liberalisations as well as tariff cuts – as about 1.4 percentage points (= 3.1 – 1.7), which is close to the MFAT 1.3% number. Have MFAT got this wrong (ie do their numbers include some tariff equivalents as well as straight tariff cuts)?

supply and service that goes into determining the price paid in each case and each situation.<sup>8</sup>

Put it another way: anyone who believes that we (ie NZ exporters) pay all the tariff must at the same time believe that removing these tariffs will have no effect on the demand for the product in the export markets, because its market price will not change. That is, there will be no significant consumer benefits to tariff liberalisation in the importing countries! That is certainly not how those countries will be selling the TPP to their voters, and it is not in general realistic, in my view.

Then, the other extreme is when the importing country is assumed to pay *all* the tariff – that is, our exporters simply add on the tariff as a simple mark-up on their supply price. Then, of course, liberalisation will affect the consumer market price, and thus demand for the product.

The CGE model of Strutt et al. makes the second assumption. All firms are assumed to produce under perfectly competitive conditions with constant returns to scale, which gives each of them no cushion of profits which they could use to absorb some of the tariff – they simply *have to* pass it all on, to stay in business.

My view, as an IO economist, is that real-world conditions of demand, costs, product differentiation and competition are such as to vary the likely burden of the tariff between the extremes described above. It is obviously implausible to describe our dairy sector – dominated by a producer owned Co-op – as “perfectly competitive”, but so too does the label not fit our wineries, our manufacturers, our kiwifruit and apple growers and actually many or most of things we export.

For a BOTE exercise, I suggest that a reasonable mainstream assumption would be that the burden of tariffs is shared about equally between exporter and importer, and will now use this assumption to put a figure on the gains to NZ of lower barriers to our exports.

### ***Pricing the TPP***

On the assumption that the incidence of tariffs is shared between buyer and seller, NZ just about has to be a net gainer from the tariff liberalisations encoded in the TPP, because we will, in effect, claw back around half of the approximately \$280 million/year reductions in tariff and tariff equivalents identified by Strutt *et al* (as implied by their Table 2.2 and the figure of \$20 billion for our total current exports to TPP countries). On the other side of the coin, the mere \$20 million or so of tariffs to be taken off our current imports will just cost us \$10million in foregone revenue. There will be in

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<sup>8</sup> I have econometrically modelled the unit values for our largest commodity export – whole milk powder – and find that these differ systematically market by market, to be explained in part by fluctuations in bilateral exchange rates which are apparently shared between NZ and the country we export to.

addition some “triangle” allocative efficiency gains, but such will be tiny, given how low the tariff numbers already are.

There will also be some efficiency losses from “trade diversion” – distortions introduced when tariff etc concessions are granted to some countries but not others. We are told that 40% of New Zealand’s export trade is with TPP countries, but this means that 60% is not – and the excluded trading partners include China, Korea, Taiwan, The Philippines, Indonesia and most of Latin America. Trade diversion is a well-known consideration for regional preferential trading blocs, and it is quite surprising that Strutt *et al*, do not so much as mention it (though it must be allowed for in their model). I could but haven’t come up with a BOTE estimate of trade diversion costs.

So I am going to predict that NZ would gain around \$130million/year (at current prices and on current total flows) from the tariff and non-tariff barriers embodied in the Scenario A liberalisations. That’s about \$40 per person per year – just about enough to buy everyone a 24-pack of non-premium beer.

How does this compare with the Strutt et al. predictions? The reader who has been following the plot closely might expect that the full CGE model should come up with smaller benefits to NZ, because of the perfect competition assumption that our customers have been paying (through higher market prices) all the tariff they have imposed on our exports to them.

However, what is true for an individual market is not true when all the markets are added up and brought into balance. Under the CGE assumptions all the foreign tariff cuts will be passed through to foreign consumers who will happily respond by purchasing more of NZ’s fine products. Since there is nothing like a similar effect for their exports to us (because of the tiny tariffs we set), the immediate impact will be a quite large trade surplus, which will have to be rectified by an appreciation of our real exchange rate to discourage some exports and encourage us to import more.<sup>9</sup>

Appreciation lowers the price received in \$NZ from selling in \$US, having the same effect as if the tariff was shared between exporter and customer in the first place. Put it another way: in general equilibrium “NZ Inc” was in effect paying some of export market tariffs before TPP: now it isn’t to the extent the tariffs have been removed, even under standard CGE assumptions.

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<sup>9</sup> The appreciation effect shows in Strutt et al.’s Table 3.4 as a reduction in total NZ exports of some products which we currently export mostly to countries outside of the TPP group: fruits & vegetables, crops, wool and services. It puzzles me, however, that the fruit & vegetable sector is predicted to have an increase in total real output as a result of the TPP.



However, the Strutt et al. welfare effects (Table 3.1) are somewhat larger than I have come up with above, even allowing for some inflation through economic growth through to 2030.

An alternative indicator of changes in New Zealand's economic well-being can be inferred from the (Table 3.3) figures for total real exports (projected to be 0.4% above the no-TPP baseline, and real imports (up by 0.9%). The difference is the "free lunch" we get from the terms of trade boost of the TPP – basically imports we don't have to pay for. At 0.5% of the \$50billion current NZ export flow, we are talking about \$250million/year – still larger than my BOTE estimates but less than the Table 3.1 numbers.

A possible explanation is that the additional benefits are being driven by the 10% dairy quota expansion embodied in Scenario A. Tariff equivalents for dairy products in Canada and US (especially the former) are huge (cf. SMR's Appendix VII), and perhaps even a rather tiny increase in our exports could bring in substantial profits. I note in this connection that the Canadian government has promised its protected dairy and poultry farmers nearly \$NZ5billion in compensation for the rather small (3.15%) of the domestic market it has agreed in the TPPA to open up to imports. This does suggest that there is a large pot of money on the table here, of which New Zealand may be able to appropriate a portion.<sup>10</sup>

It would have been good if SMR had shown us the impact of liberalisation of tariffs and tariff equivalents separately from the assumed 10% dairy quota expansion. It would have been good if the rudimentary documentation of their model, data, and modelling results had been expanded to include detail on, among other things (i) changes in the real exchange rate; (ii) changes in NZ's trade flows within and without the TPP group; (iii) elasticities of demand plugged in to the model; (iv) detail on the assumptions made in particular to quantify the enormously restrictive Canadian and US policies on dairy product imports.

I have no comment to make on the much larger SMR numbers for gains under their Scenario B, since we have been given nothing like enough information to assess the reliability of these, or, indeed, whether they match events agreed to in the text of the TPPA. I note that MFAT has decided to halve the non-tariff gain predictions, but hasn't

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<sup>10</sup> A cautionary note, applying especially to dairy products. We should not assume that improvements in access to protected markets (and deregulation of dairying more generally) will easily favour our farmers and Fonterra, rather than suppliers of milk and milk products much better placed geographically to take advantage.

The Canadian government's compensation offer reflects the extraordinary political power of Canadian dairy farmers and their stunning sense of entitlement – that they should expect compensation from the Canadian taxpayer for losing a little slice of the protection that enables them to overcharge the Canadian consumer by more than \$2billion a year (Findlay, 2012).

told us why, and that Strutt et al. are quite candid about the existence of controversy about how to model non-tariff barriers, but un-specific about what the controversies are about.

### ***The Validity of the Strutt, Minor and Rae study***

I am happy to endorse MFAT's choice of Anna Strutt, Peter Minor and Allan Rae as a "team of internationally respected and experienced trade modellers", and I am pleased that NZ now has research competence in an area (CGE trade modelling) formerly dominated by Australians, Canadians and Americans. Nor would I disagree that CGE is a "well-established, internationally recognised" approach to modelling trade policy changes. I would say however that there is much less to these models than meets the eye, with their masses of data, parameters and equations. They depend at base – as explained above – on the validity on some quite crude assumptions about how real-world markets function and their results are very sensitive to errors in these assumptions. The economic modelling of the TPP might conceivably have been more useful if it had focused on some in-depth economic case studies of the most interesting industries – in particular, dairying.

Overall (as noted above), the standard of documentation of the modelling is dreadfully inadequate – just 20 pages of text in the September 28, 2015 Report. The authors should have chosen, or been asked, to present a much weightier and more detailed account of every facet of the data, assumptions, modelling and results, if they were reasonably to expect their numbers to be taken seriously.

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