

Reply to the Commentary by the New Zealand Ministry of Foreign Affairs and Trade
Comments on Trans-Pacific Partnership submitted to the New Zealand Parliament, March 1, 2016

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The Ministry of Foreign Affairs and Trade of New Zealand has issued a commentary¹ on our projections of Trans-Pacific Partnership's economic effects². The Commentary provides an opportunity to reflect on some important issues involved in modeling the effects of TPP and similar agreements. This note aims at correcting a few misrepresentations.

1. The United Nations Global Policy Model was built to assess global and country-level economic outcomes under changing policy scenarios.

Contrary to what is claimed, the United Nations Global Policy Model (GPM) was not constructed to assess the economic consequences of unexpected shocks such as the global financial crisis. If that were the case, the model's release in early 2007, almost two years before the financial crisis, would show prescience. In fact, the model is a variant of the Cambridge-Alphametrics Model, first released in 2005 and that in turn was developed from the Cambridge Economic Policy Group's World Economic Model³.

The origin and purpose of the GPM have already been clarified in a response to similar misconceptions arising from the debate of the Trans-Atlantic Trade and Investment Partnership (TTIP).⁴ In a nutshell, the model is constructed to assess macro-financial changes induced by policy (mostly monetary, fiscal, industrial, financial, income, employment and trade policy). It offers an ideal empirical platform to evaluate changes triggered by trade and financial arrangements, such as: induced behavioural changes on business, seeking competitiveness improvements by cost reduction (including wage compression and labour shredding); or the implications of such changes in the generation of income on expenditure patterns of households and investment patterns of businesses; or changes in tax schedules seeking to attract foreign investors; or risks of financial instability and exchange rate aberrations triggered by greater speculative activities in the context of financial deregulation.

2. The GPM is estimated over a consistent database of global trade and investment

It is erroneous to say that the model does not capture exports, imports or foreign direct investment. As is clarified in the model's technical documentation⁵, the GPM database and model contain a very comprehensive and globally consistent dataset covering global trade and financial investment.

¹ See New Zealand Ministry of Foreign Affairs and Trade: http://www.parliament.nz/resource/en-nz/51SCFDT_EVI_00DBSCH_ITR_68247_1_A490177/33e1b914eb7d00cbec8a838e326aa71a79de818a

² See Capaldo, J., A. Izurieta and Jomo KS, 2016, "Trading Down: Unemployment, Inequality and Other Risks of the Trans-Pacific Partnership Agreement", GDAE-Tufts University: http://www.ase.tufts.edu/gdae/policy_research/tpp_simulations.html

³ Constructed in the late 1970s and subsequently subject to several revisions under the guidance of Francis Cripps.

⁴ See J. Capaldo, 2015, "Overcooked Free-Trade Dogmas in the Debate over TTIP": http://ase.tufts.edu/gdae/Pubs/rp/CapaldoTTIP_Rejoinder.pdf

⁵ See F. Cripps and A. Izurieta, 2014, "The UN GPM, Technical Description": http://unctad.org/en/PublicationsLibrary/tdr2014_GPM_TechnicalDescription.pdf

The GPM provides a configuration of the dynamics of exports and imports over four main categories, estimated econometrically using time-series that go back to 1970. It also provides, quite unusually for global models, a full mapping of the financial sector, domestic and external (including Foreign Direct Investment) based on estimated financial flows, financial stocks and valuation changes. As a matter of fact, at the moment no other global macroeconomic model provides the same degree of detail on financial flows and stocks. For most other models, including trade models such as GTAP which offer more disaggregated trade data, the financial sector is either assumed away or considered passive in its relation to the real economy. Given that contemporary trade agreements are as much about liberalizing financial flows as they are about tariff reductions this is a major limitation of such models.

3. The Ministry's Commentary distorts a rather rich debate

The Commentary by the Ministry of Foreign Affairs and Trade of New Zealand extracts sentences from the debate with Prof. Lawrence of the Peterson Institute, trying to show inconsistency in our response. However, this attempt is misdirected. First, the statement is incorrectly attributed to Jeronim Capaldo rather than to Jomo KS⁶, author of the cited reference. Secondly, the statement that we “do not claim to have provided reliable and definitive projections of the TPP's likely effects” seems to be taken as an auto-critique when it is meant to acknowledge the limits of all exercises in macroeconomic projection. As is clear from reading Jomo's entire article, the statement does not imply that our results are less reliable than those from the models we criticize.

Given such misrepresentations, readers may be understandably concerned with other missteps made in the Commentary. We invite anyone interested in the debate on TPP's projected effects to read Robert Lawrence's critique⁷ and our responses⁸ directly. We also invite readers to evaluate ECIPE's criticism⁹ and Capaldo's response¹⁰ directly.

4. We do not propose alternative trade projections. We rely on “trade” models

It is correct that GPM does not reflect trade specialization in the same way that the models we criticize do. Each model emphasizes some aspects of reality while neglecting others. Our model emphasizes the importance of ‘policy space’ and of income generation and distribution, while it captures its dynamics by econometric estimation over series longer than four decades. It does not provide such a granular view of production, exports and imports covering dozens of sectors, of which the underlying economic relations are calibrated to one year of observation. Recognizing these differences of scope and method is the starting point of our study: we take at face value the market-level *trade* projections provided by a trade model that offers such detail, namely the study by the Peterson Institute. Providing alternative results would require that we

⁶ See Jomo KS, “Are the Peterson Institute Studies Reliable Guides to Likely TPP Effects?”: <http://ase.tufts.edu/gdae/Pubs/rp/GC98Feb16JomoKS.pdf>

⁷ See Robert Lawrence, 2016, “Studies of TPP: Which Is Credible?”: <http://blogs.piie.com/trade/?p=553>

⁸ See cited Commentary by Jomo KS. See also J. Capaldo and Alex Izurieta, February 3, 2016, “Modeling TPP: A Response to Robert Z. Lawrence”: <http://ase.tufts.edu/gdae/Pubs/rp/GC96Feb16CapaldoIzurieta.pdf>

⁹ See ECIPE, 2015, “Splendid Isolation’ as Trade Policy: Mercantilism and Crude Keynesianism in ‘the Capaldo Study of TTIP”: http://www.ecipe.org/app/uploads/2015/04/1-Occasional-Paper_v4.pdf

¹⁰ See Capaldo, 2015.

develop another trade model. Or, we could have used projections by other 'trade' models, such as the study by the US Department of Agriculture¹¹, which is less optimistic than the Peterson Institute's.

5. We analyze effects neglected by most trade models: policy changes, employment and income distribution

Our intent was to draw attention to the macroeconomic implications that may result from the adoption of a trade *and investment* treaty like the TTP, particularly for fiscal policy, the distribution of income between profits and wages, employment and GDP growth. These are areas on which 'trade only' models have little to say. Trade models are partial analyses, based on prices, tariffs, demand and supply of a variety of products, for most of which there is only a single observation, not a time series, and a set of economic relations that are calibrated to conform an economic theory of some kind. To be more specific, demand and supply of each traded good (thus imports and/or exports) are projected according to the belief that trade liberalization improves performance because each restriction that is lifted is assumed to be just a cost. Trade models cannot tell with certainty whether increasing activity in one economic sector leads to higher or lower activity in other sectors or what happens with the activity behind the cost that is eliminated. The same uncertainty applies to country and global prices, employment, government budgets and the implications of changes in fiscal policy for economic activity. Trade models overlook the problems arising from the necessary aggregation of fiscal balances and the employment effects of trade liberalization. They also downplay the macroeconomic effects of changes in non-tariff barriers and, since these models typically do not include a financial sector, the dynamics of capital flows (including Foreign Direct Investment) are overlooked as well.

6. Some macroeconomic assumptions common in trade models are unreasonable or at best unhelpful

Given these problems, how can trade models of the sort we criticize project the effects of changes in tariffs, non-tariff barriers and capital flows on fiscal balances, employment and income distribution? They make a series of strong assumptions. More specifically:

- a. They assume that all economies operate at full employment, based on the belief that full employment is the natural state of the economy in the long term to which all forces converge. This is done by assuming that for every job destroyed in a contracting sector a new job is created somewhere else; for as long as there is an unemployed worker available, a new expanding sector will emerge thanks to free trade.
- b. Lifting non-tariff barriers, which include things like public sector support to businesses, environmental standards, health standards, employment regulation, welfare and social protection policies, etc, are tantamount to reducing 'costs' and/or increases of productivity. It is a belief, but by assuming such effects in a trade model, the intent is to show that trade liberalization is always good: costs are reduced, productivity grows, businesses flourish.
- c. Financial deregulation and the promotion of free capital flows are believed to improve efficiency, create more savings which are automatically transmitted into more productive investments and lead to more economic activity. It is a belief (which the modeler takes as self-evident since such models do not have a financial sector) but by assuming such effect in the model it is therefore tautological that financial

¹¹ See USDA, 2014, "Agriculture in the Trans-Pacific Partnership":
<http://www.ers.usda.gov/media/1692509/err176.pdf>

liberalization is good: businesses and productive investment flourish on the back of more available financing.

- d. Based on the congenial role of reduced costs, of full employment and the full transformation of savings into productive investment, these models can simply accept a belief that any potential impact of tariff changes on the public sector will not be a matter of concern. Else, reduced tariff revenues or increased unemployment may signify either revenue losses or increased expenditures for the public sector, thus greater deficits, rising debt levels and the potential economic problems these might cause for policy makers. Likewise, why in an economy represented by a trade model do we need public sector jobs if free trade creates all the employment needed?
- e. Trade and financial liberalization, by belief then, lead to increased productivity. This is further handled in such models with the help of another assumption: perfect competition. This assumption, which is also taken up in the study conducted by the Ministry of Foreign Affairs and Trade (p. 16) is essential to obtain three very congenial effects of trade and financial liberalization. The first one is that all productivity increases and efficiency gains are directly transmitted into reduced prices for consumers. Neither profit makers nor workers reap the benefit of a higher margin on unit costs, all is transmitted to consumers.
- f. The second congenial effect of the assumed higher productivity and perfect competition is that all factors are paid fairly according to their marginal contribution to production. As a result, these models fail to explain the reduction of labor shares that has affected many countries in recent decades.
- g. The third effect of assumed higher productivity and perfect competition, which is often presented as an independent assumption, is that the model always generates full employment after a relatively short adjustment period. In practice, increased productivity means that the same product requires less labour input than earlier, thus some workers become superfluous but these in turn will be added to the available labour supply. But these, in a perfectly competitive labour market and supply-driven economy will be able to find another venue to sell their labour service at the asking price. Their supply will create the required demand. It is a belief, but a model that incorporates such belief will be able to show that trade and financial liberalization leave employment unaltered.
- h. Finally, there is the aggregation problem, which is one of the most critical issues in macroeconomic performance, even if that is ignored 'by construction' in trade models. Casual observers of the economic discipline tend to believe that macroeconomic analysis is for the short run, and more specifically for crisis conditions. Nothing can be further from the truth. Macroeconomic analysis is the branch of economics that deals with the aggregation of individual behavior after taking into account interactions between sectors, policies, the financial system, and trade. Trade models 'aggregate' by adding up the results of individual products, but ignore important policy feedbacks, trade-offs and dynamics of flow-of-funds through the financial sector. For example, a reduction of a tariff, or the elimination of a sanitary control, is viewed in a standard trade model as eliminating a cost and this is added to the cost eliminated in the next product and so on. In a macroeconomic model such 'costs' that are reduced have also an impact on someone else's income or job availability: the number of health workers eliminated, of educators teaching health standards, of equipment to undertake health analyses, the lost revenues for a public sector institution in terms of tariffs or taxes which would then implies cutting down on employment somewhere else.

Likewise, a belief in increased foreign direct investment is seen in a trade model as an increased supply of finance and thus greater economic activity, with no implication for 'policy space'. No account is made of

the pressure exercised by foreign counterparts on tax reductions, on deficit reduction, on containing government spending, etc. Nor is allowance made for the possibility (which has certainly been recorded in practice) that funds available may end up in speculative activities when the impetus from household spending, which depend heavily on labour income, tend to weaken. Apart from these effects which are real and can be captured on aggregate basis in macroeconomic models, the GPM offers the proper portfolio and accounting structure to track financial flows. The costs of such additional supply of finance (such as FDI) will be incorporated somewhere else in the model. These can be considerable if changes in other parts of the financial system, as a result of increased financial deregulation, trigger a sudden outflow of capital, or a raise of interest rates, or a foreign exchange depreciation that makes honoring the returns more expensive in domestic currency. Of course, no model can handle in a reasonable way all such level of detail, but macroeconomic models, especially those which are econometrically estimated over a sufficiently long period of time, can offer a sensible representation of the aggregate performance of an economy responding to changes like those usually triggered by trade and financial liberalization.

7. Concluding Remarks

In sum, our attempt was to complement as well as to correct misperceptions. We aim at complementing by intentionally not disputing trade-specific findings of a trade model like that of the Peterson Institute. We could have used trade projections from another trade model or we could have developed our own trade model. But we chose to take such trade-specific findings on face value. Why? Because we wanted our readers to concentrate on what is effectively a series of misconceptions built in the assumptions of such models, which could lead to serious policy errors. These misconceptions include the belief that by eliminating non-tariff barriers and by assuming flows of foreign direct investment out of thin air, the world economy will face lower costs, become more productive, ensure that everyone who wants to find a job will find it and is paid a fair wage. We used a global model that is not built on such beliefs and our results show indeed a different picture. As with all projections, and regardless of the model employed, ours may turn out to be inaccurate, triggering a further round of scientific discussion on how to improve the model for future use. But in the course of improving understanding of the implications of trade and financial agreements, we should persevere in providing a more plausible view of the real world economic processes at stake rather than ignoring them by assumption.

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