FORECASTING THE IMPACT OF THE TPP ON GROWTH

International Economics

Strategic Analysis For Growth & Development

International Trade and Economics Series

March 2016

DISCLAIMER

We endeavour to report accurate information and as such, we use sources which are considered reliable and unbiased. The opinions or views expressed are those of the authors and do not necessarily reflect the opinions and recommendations of the publisher or editors. International Economics and the contributors of this Series shall not be held liable in any way for any inaccuracies, errors, omissions or defamatory statements therein or for any damage arising therefrom or occasioned thereby.

International Economics Ltd and the authors own all rights (including copyright) related to this and previous reviews and the articles incorporated there. Materials may be quoted subject to the inclusion of the author and copyright ownership, and company web site address: www.tradeeconomics.com

FORECASTING THE IMPACT OF THE TPP ON GROWTH

David VANZETTI[1]

ABSTRACT

Several conclusions can be drawn from our analysis. Once implemented, the TPP is expected to be generally beneficial for most, but not all, member countries. Those countries which are not parties to the TPP are expected to be worse off because of trade diversion. At a national level, the income effects of trade reform are very modest, less than one percent of GDP in most cases. Against the background of the ongoing expansion of most economies, the gains from trade reform are small. At a sectoral level, substantial adjustment would be required in some sectors in some countries, such as livestock products, textiles and motor vehicles, but in most cases the adjustment merely requires slower growth, rather than a contraction of the sector. Negotiators have attempted to ease the problem of structural adjustment by phasing in the tariff reductions over a period of up to ten years, or by imposing tariff rate quotas, where large tariffs are imposed once a quota is exceeded.

WHAT IS THE TPP?

The Trans-Pacific Partnership (TPP) is a preferential trade agreement centred on the United States (US) at its core. The 12 member countries are Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the US, and Vietnam. These countries are responsible for a quarter of world trade, and just over one third of global economic output. The TPP is unprecedented in scope and coverage. The most contentious market access issues relate to US automobiles and Japanese agricultural imports. In addition to the usual trade issues such as reductions in tariffs and non-tariff barriers (NTBs), the agreement also covers new generation issues such as government procurement, competitiveness, corruption, state-owned enterprises, labour and environmental standards, and regulatory coherence. Perhaps the most controversial of these measures are intellectual property and investor state relations. The agreement was signed in 2016 but it has not yet been ratified or implemented.

While behind-the-border measures are important, particularly for trade in services, the focus in this short paper is on market access. Trade liberalisation invariably improves market access for exports but opens up domestic markets to foreign competition. Negotiators seem focused on maximising the first, while minimising the second. This approach leads to trade agreements with hundreds of exemptions for so-called sensitive products. The purpose of these exemptions is also to protect the wages of employees in particular sectors. Agriculture is one of the few remaining sectors that is widely protected.[2] One reason for this is that agricultural workers are not particularly mobile, and would have difficulty in finding employment in other industries. In the TPP, Japanese agricultural workers were regarded as particularly sensitive.

[1] **David Vanzetti** is a **Senior Economic Advisor** at International Economics Ltd., and Visiting Fellow at the Crawford School of Public Policy at the Australian National University.

[2] See, for example, Jurenas, R. (2015) How Could Mega-Regional Trade Negotiations Affect Agricultural and Food Trade? Issue Paper No. 57; International Centre for Trade and Sustainable Development, Geneva, Switzerland, www.ictsd.org.

CALCULATING THE IMPACTS

Average tariffs between TPP members are already rather low, at around 3%, but the average hides large peak tariffs, such as on Japanese rice and other agricultural imports. By examining tariff changes at an industry or tariff line level, it is possible to make a reasonable estimate as to their likely effects on imports and, perhaps, exports. However, looking at tariffs alone is insufficient. Because many firms sell their output to other firms as intermediate inputs, lower prices in one sector are beneficial to downstream sectors. For example, the removal of tariffs on cattle makes a country's beef sector more competitive. Such interactions should be taken into consideration in assessing a policy change. Where a large number of variables are involved, computational models are necessary to take account of the interactions. Trade models are used to make estimates of the possible effects of changes in trade policy on a number of economic variables, such as production, exports, imports, tariff revenues, wages, employment and welfare. The model used in this article is the multi-regional Computable General Equilibrium (CGE) model GTAP.

Most trade agreements are implemented over ten or perhaps 15 years. Over that time the global economy is expected to grow considerably. An economy growing at 7%, such as China, will double in ten years. By contrast, the Japanese economy may well shrink by 2025, thanks to an ageing population and stagnant growth. This has important implications for structural adjustment. Typically, trade reforms such as the removal of some tariffs will have small positive effects on variables such as trade, output and incomes. These effects will generally be insignificant compared with the underlying growth over the implementation period. This is an important point for policymakers, who are concerned that the negative impact on a sector of reducing tariffs will lead to unemployment. However, from the point of view of adjustment, it is much easier for firms and sectors to adapt to a slowing of growth rather than a contraction.

At the time of the writing this article, the TPP tariff reduction schedules had not yet been published, but previous agreements such as the US-Korea FTA provided an indication of what could be expected. Many tariffs are reduced to zero, but some are not. Tariff changes are phased-in over a number of years. For example, the tariff on Japanese imports of beef is expected to be reduced from 38% to 9% over 15 years. The year when tariffs reach their final level differs from product to product. In our analysis, we take into account the growth in all economies until 2025, the tariff reductions already agreed but not implemented, and the further reductions we can expect under the TPP, taking into account the likely exemptions and phase-in periods.

BOX 1. Results' Limitation

In our modelling, there are no reductions in barriers to services trade or non-tariff barriers, migration or investment flows. The existing barriers are difficult to measure, and the effects of reform uncertain. It is important to note that several dynamic elements are ignored here. These include for example, the impact of trade on productivity, investment, competition and the use of technology. There are also adjustment costs that are ignored.

WINNERS AND LOSERS

The results can be summarised fairly succinctly. Members tend to gain from regional trade agreements (RTAs), but non-members are made worse off because of trade diversion. In spite of the depth of cut in tariffs, the global gains are modest. A final observation is that the impacts of these trade deals pales into insignificance over the implementation period. The role of capital and

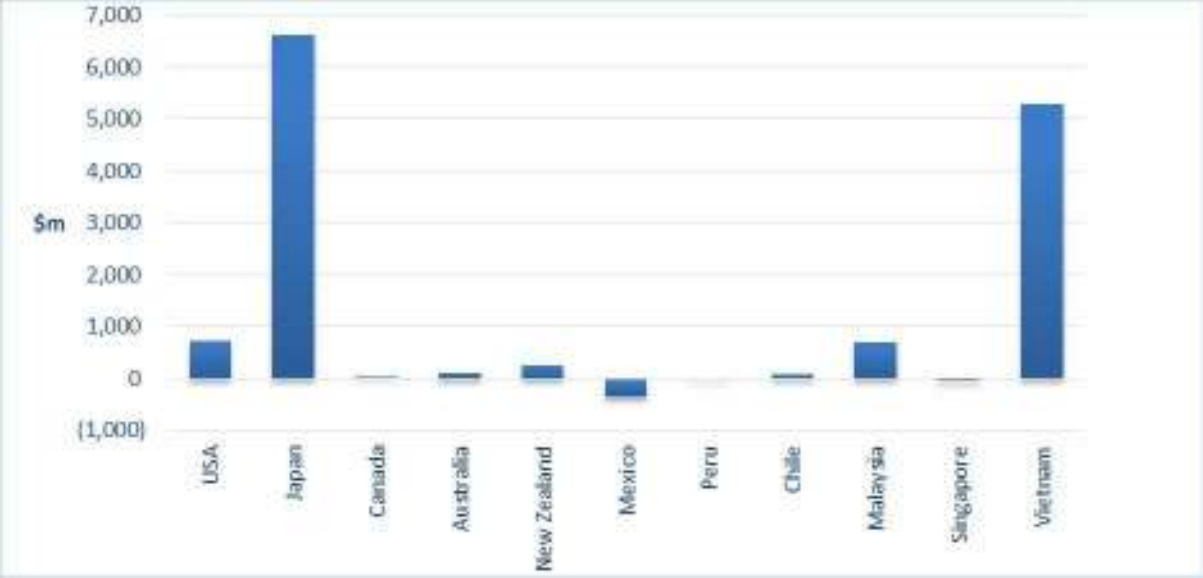
productivity growth is much greater than the gains from trade liberalisation. This is because liberalisation involves shifting resources from one sector to another, more productive sector, whereas increasing capital and productivity effectively increases the available inputs.

WELFARE

Welfare is a useful measure of real income that takes into account employment factors, allocative efficiency gains and terms of trade effects.[3] Figure 1 shows the deviation in welfare from the base in 2025. TPP members gain USD 13.5 billion in 2025. Most TPP members gain, particularly Vietnam and Japan, but all non-members lose. Members may lose as well. This includes Canada, Mexico and Peru. This is for two reasons. First, these countries already have preferential access to the US market, and letting in competition from Malaysia and Vietnam is likely to drive them out of that market. Second, joining the TPP means importers lose tariff revenue they had previously collected. Firms switch from low cost to high cost suppliers when the tariff wall is removed preferentially.

Although TPP is expected to have deep tariff cuts, these don't apply to all exporters so inevitably there is a certain amount of trade diversion. The result is that non-members lose. Global welfare gains are only USD 1.4 billion in 2025, compared with the USD 13.5 billion gain for TPP members.

Figure 1. Welfare, annual change from base in 2025 for TPP Countries



Source: GTAP simulations

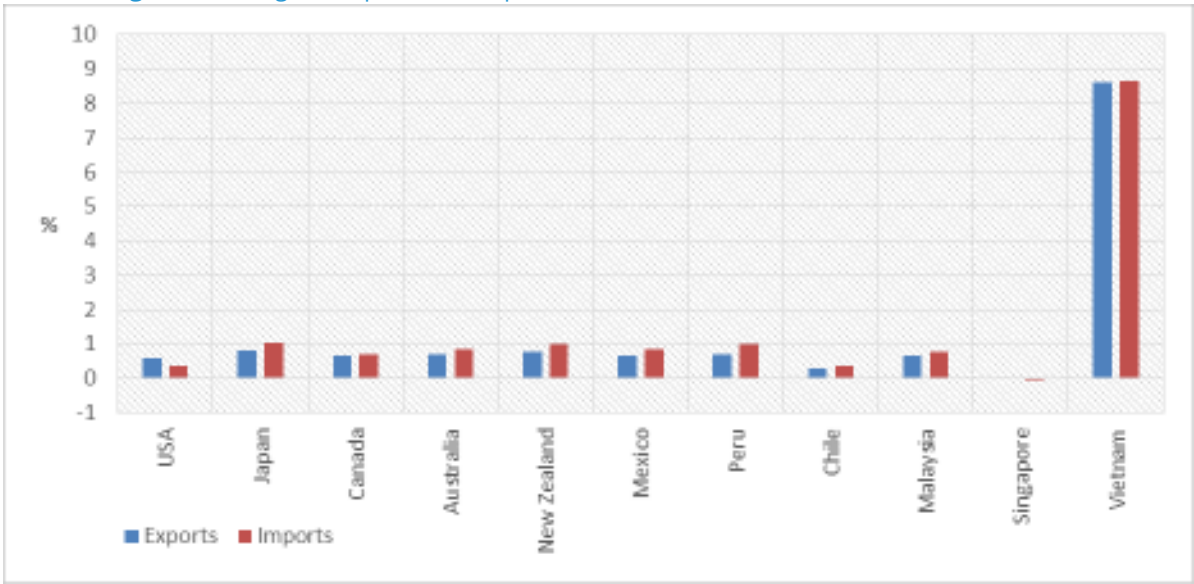
The major impact of the TPP is a switch from China to Vietnam for imports of textiles, clothing and footwear into the US. Rules of origin are restrictive in this sector, but if Vietnam can meet these requirements it stands to be the major beneficiary.[4] Vietnamese exports are estimated to increase 8%, compared to baseline levels in 2020 and 2025. This is a huge increase. For most TPP countries the gains in exports are less than 1% (see Figure 2). China is not a member of the TPP, but if it were to join at a later date some of these estimated gains for Vietnam would be eroded.

[3] The welfare measure used here is equivalent variation, the change in income that would leave consumers no worse off than before the policy change.

[4] For a detailed discussion of rules or origin and the Vietnamese textile sector, see Vanzetti, D. and Huong, P. L. (2014) 'Rules of origin, labour standards and the TPP', contributed paper at 17th Annual Conference on Global Economic Analysis June 18-20, Dakar. Available at: https://www.gtap.agecon.purdue.edu/resources/download/6792.pdf

The other major beneficiary of the TPP is Japan. This is due to providing access to its rice and livestock product (beef and dairy) markets, which are currently highly protected. Consumers gain at the expense of producers. The major exporters to gain are the US, New Zealand and Australia. Global gains are minimal, especially compared with the underlying growth that can be expected to occur in the absence of any agreement.

Figure 2. Change in Imports and Exports Relative to Base in 2025 for TPP Countries



Source: GTAP simulations

This conclusion underplays the role of trade because it ignores the contribution of trade to investment and productivity, the main drivers of growth. Trade undoubtedly influences both these variables, but the impact is uncertain and difficult to quantify.

Vietnam's increase in textile and apparel exports comes at a cost. The increase in exports requires an increase in production in both textiles and apparel. This requires a large increase in investment, much of it foreign, but also a switch in capital and labour out of other industrial sectors. This leads to a decrease in output from those sectors as indicated in Figure 3.

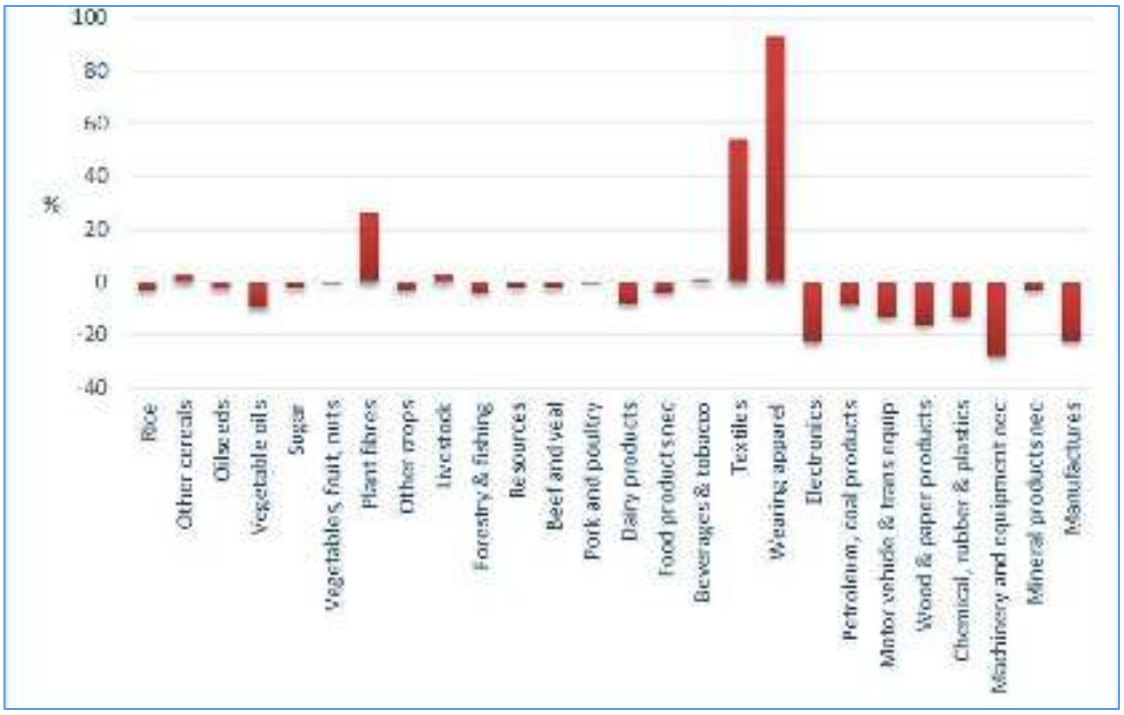
IMPLICATIONS AND LIMITATIONS

RTAs are a third best option, behind unilateral and multilateral liberalisation. RTAs can lead to losses because countries forgo tariff revenue when they switch from a low-cost non-member, to a high-cost member supplier who avoids the tariff. In addition, some countries lose preferential access on their exports. For example, in the TPP, Mexico and Peru have to compete with Malaysia and Vietnam in exporting to the US.

The results presented here suggest that the TPP will have only a modest effect on incomes. One explanation is that the tariff cuts are not very large, partly because a lot of the liberalisation has already occurred, or is scheduled to occur, and another is that negotiators still specify many exemptions, running into the hundreds in any specific agreement.

Negotiators have generally chosen to implement trade reforms with a long phase-in period. While this delays some of the benefits, it reduces the costs of structural adjustment. Against an expanding background, a slowing of the expansion is not as difficult to deal with as a contraction.

Figure 3. Change in Output Relative to Base in 2025 for Vietnam



Source: GTAP simulations

A limitation of the modelling is the absence of a link between trade and productivity. The modelling shows the benefits of using resources better, and estimates the terms of trade effects, but doesn't show the effects of trade on competition and productivity. The link is likely to be heterogeneous firms, where labour moves from less productive to more productive firms within a sector.

The modelling results depend on numerous assumptions. An important assumption is that labour and other factors are fully employed. Workers obliged to leave a sector following a contraction can find employment elsewhere. If the demand for labour falls in some sectors, these workers must look for other jobs. If the tariff cuts are implemented over a number of years, the economy and the sector will be expanding over that time, and the adjustment process will be easier. This assumption of fixed employment also understates the potential gains if tariff reform leads to a demand for labour intensive goods. These gains or losses can be considerable compared with the benefits of merely using resources more effectively.

Finally, in this analysis we have assumed no changes in impediments to trade in services, or the removal of NTBs. As tariffs are reduced, NTBs are likely to figure more prominently. By not accounting for the removal of NTBs, our analysis underestimates the likely impacts of RTAs. On the other hand, removing tariffs will have little impact if binding NTBs remain, so in this sense our results may be overestimating the effects. In agriculture, SPS restrictions tend to assume greater importance in developed countries, and these can act as a barrier to developing country exports.

ABBREVIATIONS

CGE	Computable General Equilibrium	**RTA**	Regional Trade Agreement
GDP	Gross Domestic Product	**SPS**	Sanitary and Phyto-Sanitary
GTAP	Global Trade Analysis Project	**TPP**	Trans-Pacific Partnership
NTB	Non-Tariff Barrier	**US**	United States

HOW CAN WE HELP?

Support C-level executives and boards to prepare for different challenges

International Economics can help facilitate internal discussions on strategy by providing technical insights, developing dashboards of key performance measurements, and giving advice to executive boards on building resilience to possible disruptions related to exogenous trade shocks, such as Brexit or Donald Trump's Presidency. We work closely with our clients to brainstorm and identify challenges and opportunities based on our professional experience.

Map market access

In order to quantify the potential costs to your business in engaging in trade, including tariffs, standards, and customs procedures, among many others, we (i) undertake a mapping of which terms are most at risk of changing and by how much, depending on the type of agreements; and (ii) quantify and forecast the potential effect on your business using predictive analytics to generate insights into future outcomes.

Navigate through trade and investment agreements

With more than 400 trade agreements and 2,400 investment agreements already in place, *International Economics'* team is able to navigate through them, guiding and identifying which specific agreement will better suit the interests of our client. Additionally, we have developed optimization techniques, through the use of sophisticated rules and algorithms, to analyse the Free Trade Agreements (FTAs), which are growing in space, depth and complexity, in order to offer insights into investment and trade decisions. With increasing fragmentation of global production networks and the need for careful evaluation of supply chain risks, the tools developed by *International Economics* offer a solid foundation for the adoption of critical decisions by businesses.

Prepare briefings and strategic papers

Our clients need to prepare strategic position papers to assess the issues and prepare responses, whether it be internal restructuring, supply chain re-engineering or addressing policy risks. We assist our clients with short, impactful, and relevant position papers, including setting out the possible impacts of risks at different business levels (policy, financial, structural, etc.) and provide the latest thinking on the issues to date, based on a holistic economic framework.

Undertake a full economic and legal review of the trade and investment exposures to worldwide events

We conduct independent and objective reviews of the impact of different worldwide events on your business and industry. We use deep learning tools, large multi-country macro models and the latest unstructured data to offer insights into the risks, exposure assessments and likelihood of disruptions to supply chain. These provide our clients with a competitive advantage as they prepare mitigation strategies and leverage identified opportunities. We work with our clients to develop the right strategies and make breakthrough decisions.

Brexit: Help the private sector position itself during the UK's trade negotiations

Brexit will affect our clients' business strategies, supply chains, funding, tax positions, regulations, growth and opportunities. *International Economics* works with public affairs companies and specialized firms to offer the full range of trade-related technical support and advice to help companies position themselves and ensure that their interests are addressed in the negotiations.

Contact Us:

Kerry O´Donoghue (Brussels)
Senior Manager
o.donoghue@tradeeconomics.com

Natalie Donikian (Mauritius)
Public Affairs Manager
donikian@tradeeconomics.com

@TradeEconomics
InternationalEconomicsLtd
trade-economics