ECONOMIC REPORT | TPPA

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Misuse of UN Global Policy Model Paints Misleading Picture of TPPA

- *The Global Policy Model (GPM) has been developed by the United Nation for the study of medium-term policy coordination issues. However, it is not an economic model specifically constructed for the study of the impact of free trade agreements (FTAs) on the economy.*
- *Deriving an economic impact conclusion on an FTA based on the GPM is misleading as it is not designed to incorporate the contents of an FTA in a robust manner. The GPM does not take into account even the most basic element such as tariffs.*
- *In the case of the TPPA, a paper by the Global Development And Environment Institute based on the GPM has used a very narrow assumption that higher competition would lead to lower unit cost (due to lower wages and automation). In our opinion, the notion of lower wages in Malaysia as a result of the TPPA runs contrary to intuition, as the TPPA is expected to bring about higher flow of FDI, greater transparency, stronger environmental protection and most importantly, better labour standards which will result in a more competitive minimum wage policy.*
- *A fundamental flaw of the GPM-based analysis is that it does not recognize labour mobility among sectors and allow for structural changes in the economy.*
- *Overall, GPM is not made to simulate the impact of free trade agreement. Any attempt to use this model for such a purpose is at risk of being misleading.*

An unflattering paper on the TPPA. In a paper entitled "Trading Down: Unemployment, Inequality and Other Risks of the Trans-Pacific Partnership Agreement" by Jeronim Capaldo and Alex Izurieta with Jomo K.S. in January 2016 (hereinafter referred to as "the Paper"), the authors argue that the impact on the economic growth of TPPA member countries are not as great as that claimed by various studies. Indeed, the authors claim that the impact is negative for the United States and Japan. Furthermore, they found that the TPPA will likely lead to losses in employment and increases in inequality. The Paper is based on the Global Policy Model (GPM), which is a theoretical general equilibrium economic model developed by the United Nation for the study of medium-term policy coordination issues.

Same author has concluded the same with respect to another FTA. A similar study based on the GPM model had been carried out by the same main author, Jeronim Capaldo in October 2014 on the Trans-Atlantic Trade and Investment Partnership (TTIP). TTIP is an FTA being negotiated between the U.S. and the European Commission. According to Mr Capaldo, the TTIP will lead to a contraction of GDP, personal incomes and employment. The fact the same researcher, employing the same analytical approach, consistently reject FTAs reflects an element of systematic bias in the methodology and probably an inherent bias on the part of the individual.

Global Policy Model is NOT a model to assess the impact of free trade agreement. For a study which is intended to investigate the impact of FTAs, we find issues with the fact that the Paper is based on an economic model which is not designed to incorporate the contents of an FTA in a robust manner. The GPM employed in the Paper has not even included the most basic parameters such as tariff, not to mention non-tariff barriers.

Consequently, the model has indirectly (or perhaps deliberately?) disregarded the effects of the TPPA, namely lower tariff rates, greater transparency, higher intellectual property rights, stronger environmental protection and better labour standards. Instead, the researcher has employed a very narrow base assumption that higher global competition as a result of the TPPA will lead to lower unit cost, disregarding the wider repercussions and dynamics as a result of various provisions in the agreement itself. Ideally, unit cost should have been left as an endogenous variable.

The only "FTA impact" incorporated in the Paper is lower unit cost. From the Paper, it was specifically mentioned that the authors believe higher international competition would push countries to increase their trade performance. In order to preserve their market shares, producers in each country will have to sell at lower prices, and thereby cut costs. Hence, the authors **assume** that this process will lower nominal unit labour costs, the main factor in total costs, through the combined actions of business managers and policymakers who negotiate lower wages and introduce more capital-intensive technologies.

In the GPM, lowering unit cost is *tantamount* to price deflation. We note that the GPM **does not** differentiate between labour and technological costs. Thus, under its narrow base assumption that higher trade activity in TPPA will lead to lower unit *labour* cost, the authors effectively further assume that *overall* unit cost of production has declined. This is the source of the problem.

In the GPM, unit labour cost is supposedly influenced by domestic inflation, which is influenced by the output gap. However, by purposely imputing lower overall unit cost, the authors effectively portrays the economy as being in a deflationary state, which is caused by negative output gap i.e. recession. Due to this rigidity, the Paper will invariably lead to the conclusion that there will be a negative impact on the economy from competitive liberalisation.

The manner in which the authors have employed the GPM effectively means that higher competition is negative, even domestically. The assumption that higher competition will lead to lower unit cost in order for the country to maintain its market share does not only apply to global competition. On the same premise, the authors, studying the impact of higher competition in the domestic economy, would follow the same logic that businesses will only try to cut unit cost to maintain market share without recourse to other business strategies. Eventually, this will yield the same result, in which higher competition leads to lower GDP growth, higher unemployment and lower personal income. The Paper is essentially a study against higher competition!

The GPM does not allow for labour mobility among sectors and structural changes in the economy. The GPM employed in the Paper segregates the economy into four sectors, namely, manufacturing, services, energy and commodity. However, the assumption on unit cost applies only to the manufacturing sector! As the GPM is not constructed in such a way that unit cost can be purposely adjusted downwards, the Paper effectively assumes that labours are immobile and workers will accept attrition or pay cuts without even trying to shift to another sector.

Equally deficient is the fact that the GPM in the Paper has been rigidly constructed in such a way that there is no allowance for structural changes in the economy. For example, the GPM does not allow for the emergence of new industries. In reality, it is natural for the services sector of any economy to expand as the economy becomes more industrialised and as automation becomes more pervasive in the manufacturing sector.

GPM is not at fault — the misinformation lies on how it is employed. As an analytical tool to perform impact assessment, the GPM developed by the UN's Department of Economic and Social Affairs is highly valuable as it gives insights to policy makers. However, as in the case of other theoretical models such as Input-Output analysis and Computable General Equilibrium (CGE) modelling, the GPM is at risk of delivering misinformation if it is engineered to produce such an outcome, perhaps to achieve a certain agenda. We believe that is the case with respect to the Paper by the Global Development And Environment Institute of Tufts University.

It cannot be denied that economies which have opened up have experienced higher growth and better employment rate. The Paper, based on which the erstwhile Professor Jomo K.S has used to cast aspersions on the TPPA must really be understood within its proper context.

Technical Note

The import and exports volume equations of the model are as follows:

$$\Delta \log(sxm) = \Phi\left\{\log\left(\overset{(-)}{sxm_{-1}}\right), \log\left(\overset{(-)}{ucx\$_{-1}}\right), \Delta\log\left(\overset{(-)}{ucx\$_{-1}}\right), \alpha_b, \varepsilon_b\right\}$$

$$\Delta \log \frac{XM_0}{XM\$} = \Phi\left\{\log \frac{\overset{(-)}{XM_{0_{-1}}}}{XM\$_{-1}}, \log\left(\overset{(-)}{ucx\$_{-1}}\right), \alpha_b, \varepsilon_b\right\}$$

Source: UN DESA

where sxm is the import market share, µcx is the unit cost, XM is the export volume of each supplier and $ is the price. The import market share predicted in the equation above is scaled to sum to 1, making it an Armington-style constant elasticity function in which market shares depend on trade-weighted relative unit costs of the different suppliers. Given market share, export values of each supplier, XM$, are determined by summing the product of import value in each market and the supplier's market share.

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