Marshall's Producer Surplus and Value-Added: 'A Case for Protectionism?'
(A short note)

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On several occasions, authors like Dani Rodrick and Thomas Piketty questioned the benefits of trade liberalization. The rationale for liberal economic policies refers *inter alia* to welfare concepts, in particular the so-called producer and consumer surpluses, namely two key-concepts which were first proposed by Alfred Marshall in his seminal work *Principles of Economics,* published in 1890.

Thus, in the case of trade policy, relying on surpluses, it is recommended to remove tariffs and non-tariff barriers imposed on imports of commodities because such measures are expected to increase national welfare and, in theory at least, losers could be compensated with the use of adequate compensatory transfers from winners.

Despite extensive uses, the concepts of surpluses still raise questions:

1) From a semantic perspective, the concept of producer's surplus, as it is presented in Marshall's seminal work, seems to be broader than what is proposed in the dominant economic discourse; in other words, workers should also be seen as producers.

2) Furthermore, considering international trade theory and policy, the concept of effective protection does refer to value-added, which encompasses all incomes (namely wages, profits…) generated by the production and the sale of products, which may correspond to what was initially defined as surpluses by Marshall.

Following a review of Marshall's writings on surpluses – as presented in Appendices K and H of his *Principles* – (see section 1) and the theory of effective protection that refers to value-added, as originally developed by Max Corden (section 2), it is shown that a surplus concept based on value-added has implications in terms of welfare analysis of the impacts of liberal trade policies; eventually, it would not provide strong arguments for trade liberalization, it could even support protectionism (section 3).

1. Marshall's producers and corresponding surpluses

Considering producers *per se*, in his *Principles of Economics*, Marshall mentions both 'producers' and 'workers' seen as (i) direct producers, with corresponding wages, and (ii) indirect producers, namely owners of capital:

"While national income or dividend is completely absorbed in remunerating the owner of each agent of production at its marginal rate, it yet generally yields him a surplus which has two distinct, though not independent sides. It yields to him, as consumer, a surplus consisting of the excess of the total utility to him of the commodity over the real value to him of what he paid for it…

Another side of the surplus which a man derives from his surroundings is better seen when he is regarded as producer, whether by direct labor, or by the accumulated, that is acquired and saved, material resources in his possession (I underline).
As a worker, he derives a worker's surplus, through being remunerated for all his work at the same rate as for that last part, which he is only just willing to render for its reward; though much of the work may have given him positive pleasure.

As capitalist (or … as owner of accumulated wealth in any form) he derives a saver's surplus through being remunerated for all his saving…”

(Source: A. Marshall, *Principles of Economics*, Appendix K, “Certain Kind of Surplus”, § 1, as provided on the web).

In other words, *stricto sensu*, workers’ surpluses would correspond to pleasure given by work and their remuneration. Overall, despite some semantic ‘vagueness’, when considering Marshall’s work, wages could or should be seen as a category of surplus reflecting the importance of workers as producers – what they are in fact.

2. Max Corden’s theory of effective protection

Origins of effective protection

Trade policy theory does make an important distinction between nominal and effective protection. One of the best presentations of the concept of effective protection was published by Corden in 1966 in the *Journal of Political Economy*, edited by Harry Gordon Johnson, who reviewed and commented a first version of the article that was already completed in 1964. Furthermore, in an autobiographic note on ‘Effective Protection and I”, Max Corden (2005) mentions an article written by Clarence Barber (1955), a Canadian economist, in which the expressions ‘effective protection’ and ‘effective level of protection’ were apparently used for the first time.

Two definitions

The nominal rate of protection (NRP) for a given industry is the relative increase in price permitted by the imposition of an import tariff. The corresponding effective rate of protection (ERP) is the relative increase of domestic incomes, or value-added, caused by the protective measure. In quantitative terms, NRP and ERP do normally correspond to different measures; ERP is generally much higher than NRP.

3. “Value-added versus profit”: implications for assessing trade policies

Considering the impact of the removal of a tariff T imposed on the imports of a specific commodity by a small country that is confronted with a world price Pw, Figure 1, combining the domestic supply S (which, under ‘normal conditions’, is the industry marginal cost curve, including the wage element) and demand D for a given commodity, compares the traditional surplus perspective with the effective protection one, from a short term comparative statics perspective.

Using traditional surpluses

The removal of the tariff T imposed on imports lower the price on the domestic market from (Pw + T) to Pw. As a result, domestic production falls from Q2 to Q1 and consumption increases from Q3 to Q4. In terms of welfare, the so-called producers lose profits or "(1)" because of the lower price and reduced sales. The state loses all duties, which corresponds to "(3)" in Figure 1. Consumers or buyers gain "(1) + (2) + (3) + (4)". In total, there is a net welfare gain for the small importing country that is equal to the traditional welfare triangles (2) and (4) – and it is definitely a positive value, which justifies the removal of the import duty or, in other words, the adoption of free trade.

Value-added perspective

Wages are now added to profit when analyzing the welfare impacts of the removal of import duties. In other words, the wage element must be removed from the supply curve S and what remain are the industry marginal costs – or IMC in Figure 1 - related to various inputs, not the factors of production, which does not prevent suppliers from continuing their quest for a maximum profit along the supply curve S. Again, the elimination of the import duty affects profits earned by firms, state revenues and consumers' welfare – which corresponds to the traditional welfare triangles. The loss of wages must now be added to the picture and it corresponds to the difference between the supply curve and the industry marginal cost curve IMC related to the use of inputs. Thus, the loss of wages caused by the reduction of production from Q2 to Q1 corresponds to "(2) + (5)" and the total welfare change for the country is "(4) – (5)", which can be a loss, depending on the relative size of (4) and (5). Such an outcome may not represent a case for free trade, on the contrary, there could even be an argument for protectionism.

Final remarks

- The case for free trade has been questioned by various authors. The short and simple analysis I propose supports such views.

- In this note, referring to the seminal work of Marshall, I question the traditional approach to surpluses, in particular the producer surplus.

- Thus, Marshall's views seem to correspond to the perspective offered by the use of effective protection, a concept proposed by Corden.

- Relying on the concept of effective protection based on value-added and a new interpretation of Marshall's surplus concept, I propose a 'revised measure' of the producer surplus and show that the traditional or orthodox welfare case for full trade liberalization can hardly be supported, on the contrary, there might be an obvious argument for advocating some level of protectionism, in particular in a global economy with growing inequalities in terms of incomes and wealth.

References

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Figure 1: Welfare impact of trade liberalization – the traditional producer surplus versus value-added