

Tariff Data Profile

Introduction

The measurement of tariff protections can be very useful in identifying products and sectors where tariff liberalization is likely to lead to the largest gains and losses. It is, for instance, very important in order to evaluate the likely impact of a free trade agreement between two countries.

The focus here is on tools used for the measurement of nominal tariff protections. These take ad valorem, specific and compound tariffs into account, but leave out the Non-tariff barriers to trade as these are more difficult to quantify. The different elements to be included in a tariff data profile will first be described, and an example of how to compute them will follow. An exercise is also provided along with its solution.

Ad valorem tariff

This refers to tariffs which are calculated as a percentage of the products value.

$$P_d = P_w (1 + t)$$

P_d = domestic price

P_w = world price

t = tariff rate

Example: Oranges: 5%

Specific tariff

Those tariffs have a fixed value.

$$P_d = P_w + T$$

P_d = domestic price

P_w = world price

T = tariff value

Example: Blue veined cheese: 500c/kg

Compound tariff

Refers to cases where the duty imposed on the product is a mix of ad valorem and compound tariff.

Example: wheat flour: 10% plus 29.4c/kg

Non-tariff barriers to trade

Those barriers to trade cannot be measured as easily as tariffs. It refers, for instance, to import quota, voluntary export restraint, government procurement provisions, domestic content requirement, service trade restrictions, antidumping, countervailing and safeguard measures, and others, such as health, environmental and safety standards.

Measurements descriptions

Number of tariff lines

A tariff line refers to a specific item in a list of a country's tariffs organized by products. This measure refers simply to the number of items included in the list under study.

Simple average tariff

It serves the need to aggregate tariffs to estimate effects at industry level.

It is the sum of the tariff rates of all items divided by the number of tariff lines.

This measure however tends to be biased upward as more information is available for highly protected products and it does not account for the importance of product in total imports.

Maximum and minimum tariffs

This simply refers to the items having the highest and the lowest tariff protections.

Frequency distribution of tariffs

Constructing a frequency table allows one to estimate the value of exports concerned by a specific tariff range. This can be quite useful in evaluating the degree of protection of an economy.

To construct such a table one should first decide bins array. A second column will provide a description of the bins array. In the third column the frequency will be calculated. In other words, the amount of tariff lines falling within the concerned interval will be established. Finally, in the last column the sum of the imports falling within each interval is calculated.

International tariff spikes

Identifying tariff spikes (i.e. those higher than 15%) helps to recognize the products facing higher protection.

Average for industrial sectors

Calculating the average tariff rate at the HS4 level gives an idea of the protection rate enjoyed by an industry.

Weighted average tariff

Like the simple average tariff, it serves the need to aggregate tariffs to estimate effects at industry level. But it takes into account the relative importance of the product. Imports, production or world trade can be used as weights.

Weighted average is calculated by multiplying each tariff by its respective weight:

$$\text{i.e. } \frac{(w_1 * Tar_1 + w_2 * Tar_2 + w_3 * Tar_3)}{(w_1 + w_2 + w_3)}$$

where w_1 is the weight of product 1
and Tar_1 is the tariff of product 1

The major flaw of the weighted average is that it might be biased downwards as highly protected products are less likely to be imported as they will be relatively expensive.

Example

Exercise

Solution