

The TiVA indicators were created to provide an essential information about countries' trade relations for policy makers and international businesses. Detailed analysis of these indicators can assist trade participants with development strategy design for commercial partnership expansion. However, despite the fact that all of the TiVA indicators are important to a great extent, we have decided to place special emphasis on four of them.

Domestic value added in gross exports, partner shares, percentage

$$EXGR_DVApSH_{c,p,i} = \frac{EXGR_DVA_{c,p,i}}{\sum_p EXGR_DVA_{c,p,i}} \times 100$$

The “Domestic value added in gross exports, partner shares” indicator represents the importing country distribution of the value added by each exporting country and industry produced during the production and supply chain processes. In other words, it allows to evaluate how much value added is generated in exports for a certain partner country by an industry or a supplier state.

As a practical matter, the examination of EXGR_DVApSH indicator may serve for a number of purposes. For instance, a policy maker or a business can:

- identify which of their partners create more profit for them and have a potential of further trade flow growth in order to lay out new commercial development programs;
- establish which of the trade partners, conversely, lack their attention but have the capacity for extension, with the same objective of creating new commercial partnerships;
- evaluate for which countries the created value added is too high and can be decreased to receive more income.

As for the academic purposes, the calculation of this indicator seemed interesting for us as we can review how the value added is distributed amongst each exporter and each industry to get a fuller picture of the international trade connections.

Domestic value added share of gross imports, percentage

$$IMGR_DVASH_{c,i,p} = \frac{IMGR_DVA_{c,i,p}}{\sum_p IMGR_{c,i,p}} \times 100$$

The “Domestic value-added share of gross imports” indicator stands for the domestic value added embodied in gross imports as a share of total gross imports for each industry and exporting country. It is considered to be an 'intensity measure' of the “Domestic value added embodied in gross imports” indicator and reflect how much domestic value-added is embodied per unit of total gross imports from each exporting industry of every exporting country.

The main implication of “Domestic value-added share of gross imports” indicator is that it can reveal the extent to which previously exported domestic value-added returns to the domestic economy, via imports of both final and intermediate goods and services, after passing through regional or global production chains.

Re-Exported Intermediate Imports, USD million

$$REII_{c,i} = \left(\sum_p A_{p,c} B_{c,c} EXGR_c \right)_i$$

Next indicator calculated is “Re-exported intermediate Imports”. It reflects the amount of intermediate imports that are used (indirectly and directly) in producing goods and services for exports. Another indicator in the group of “RE-EXPORTED INTERMEDIATE IMPORTS” of TiVA indicators is “Re-exported intermediate imports as a % of total intermediate imports, percentage”, as a percentage of total intermediate imports (by import category) it shows how much of the imports are exported. Nevertheless, we have decided to calculate absolute values as it is the main component.

Data on Re-exported intermediate Imports allows to:

- evaluate size and level of development of the country’s economy since the smaller the economy the higher the amount of imports is needed to compensate the lack of domestically produced goods and services, while the larger and more diversified economies see relative low volume of imports in intermediates;
- indicate the industries of the country where producers experience lack of the most efficient inputs which are needed to produce competitive on international markets goods and services.

Concerning the academic aims, calculation of “Re-exported intermediate Imports” indicator provided us with the opportunity to see the developments of the industries and economies from another prospective and easily identify strengths and weaknesses of countries.

Value added shares in final demand, by source country and industry, percentage

$$FD_VASH_{c,p,i} = \frac{FD_VA_{c,p,i}}{\sum_p FD_VA_{c,p,i}} \times 100$$

Another significant indicator is the “Value added shares in final demand, by source country and industry, percentage”. This indicator shows value added proportions in the final demand of the country by each trade partner and each industry. In fact, FD_VASH is a part of a group of TiVA indicators, aimed at examining the value added in demand side of the country, including also value-added shares in consumption and GFCF. However, we have chosen to focus on the shares in final demand, as it appears to be the most essential component of the total domestic demand.

The information about the value-added shares in country final demand may contribute to:

- establishing for which products of different industries and countries the demand is the highest with the objective of trade partnership promotion;
- identifying the commercial partners with the most substantial domestic demand for their products and inadequacy of supply for the national needs satisfaction;
- determination of miscalculations in the domestic market supply with further estimation of the value-added shares in consumption and GFCF for striking a balance in the national market.

For our research this indicator was particularly important, as it demonstrated the differences in final demand value added proportions for the specific countries we were interested in and allowed us to see how the value added created for an industry or a state is connected to a final demand of a country.