

Trade in Value Added: The Case of the Central and Eastern European Countries

Authors : Łukasz Ambroziak

Abstract : Although the impact of the production fragmentation on trade flows has been examined many times since the 1990s, the research was not comprehensive because of the limitations in traditional trade statistics. Early 2010s the complex databases containing world input-output tables (or indicators calculated on their basis) has made available. It increased the possibilities of examining the production sharing in the world. The trade statistic in value-added terms enables us better to estimate trade changes resulted from the internationalisation and globalisation as well as benefits of the countries from international trade. In the literature, there are many research studies on this topic. Unfortunately, trade in value added of the Central and Eastern European Countries (CEECs) has been so far insufficiently studied. Thus, the aim of the paper is to present changes in value added trade of the CEECs (Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia) in the period of 1995-2011. The concept 'trade in value added' or 'value added trade' is defined as the value added of a country which is directly and indirectly embodied in final consumption of another country. The typical question would be: 'How much value added is created in a country due to final consumption in the other countries?' The data will be downloaded from the World Input-Output Database (WIOD). The structure of this paper is as follows. First, theoretical and methodological aspects related to the application of the input-output tables in the trade analysis will be studied. Second, a brief survey of the empirical literature on this topic will be presented. Third, changes in exports and imports in value added of the CEECs will be analysed. A special attention will be paid to the differences in bilateral trade balances using traditional trade statistics (in gross terms) on one side, and value added statistics on the other. Next, in order to identify factors influencing value added exports and value added imports of the CEECs the generalised gravity model, based on panel data, will be used. The dependent variables will be value added exports and imports. The independent variables will be, among others, the level of GDP of trading partners, the level of GDP per capita of trading partners, the differences in GDP per capita, the level of the FDI inward stock, the geographical distance, the existence (or non-existence) of common border, the membership (or not) in preferential trade agreements or in the EU. For comparison, an estimation will also be made based on exports and imports in gross terms. The initial research results show that the gravity model better explained determinants of trade in value added than gross trade (R2 in the former is higher). The independent variables had the same direction of impact both on value added exports/imports and gross exports/imports. Only value of coefficients differs. The most difference concerned geographical distance. It had smaller impact on trade in value added than gross trade.

Keywords : central and eastern European countries, gravity model, input-output tables, trade in value added

Conference Title : ICEM 2017 : International Conference on Economics and Marketing

Conference Location : Lisbon, Portugal

Conference Dates : April 16-17, 2017