

## **Measuring the factor content of trade in a context of factor intensity ambiguities**

Topic: Input-Output Theory and Methodology - III

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Measuring the factor content of international trade is no trivial task. Indeed, as long as factor prices differ internationally and many factors are embodied into the production of commodities through trade in inputs, there are several ways that can plausibly be used to measure the factor content of trade. In this context of factor intensity ambiguities, a method proposed by Treffer and Zhu (2011) has recently prevailed in the literature, which consists of defining the factor content of trade as the actual factor content of the vector of net exports. However, this method suffers from at least two shortcomings. First, the definition of factor content is not consistent, since as long as factor content is measured from a net trade vector including both final and intermediate commodities, traded inputs are counted both as part of the net trade vector and also as part of the input matrix. Second, by measuring the actual factor content of trade in the usual way it is not possible to identify which is the factor content due to trade specialization and which is the factor content due to mere factor substitution due to failing of factor prices equalization. Therefore, the present study proposes an alternative method to measure the factor content of trade. The present method starts from the definition of factor content based on the actual content of expenditure and estimates factor content of trade as the difference between the measured factor content and the factor content that would be measured if trade specialization were not considered. The method has been applied to the data available in the WIOD Release 2016 database for 7 factors and 41 countries. The novelty of the present study is that it proposes a new method for estimating the factor content of trade that may be useful for research on topics of international trade with policy implications such as the environmental impact of trade or the relationship between trade and resources.