

# Revealed Comparative Advantage: Comparison of the Baltic States

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## Abstract

The paper provides the results of the research of the revealed comparative advantages of the Baltic States to find out the competitiveness patterns of the Baltic States and their implications for further cooperation. Revealed comparative advantage (RCA) index, comparing exports in three Baltic States with the exports of the EU, have been calculated and analysed. Results show that all the Baltic States have some similar comparative advantages and some unique ones, with Lithuania as a slight leader in the number of goods categories. All the countries compete also for transit flows. Further analysis is needed to distinguish in which fields can all countries cooperate, and where they are direct competitors.

*Keywords:* Revealed Comparative Advantage, Exports of Goods, the Baltic States.

## Introduction

Export is one of the main driving forces of the economic development as it provides the opportunities for companies to sell their goods and services to more clients. This is especially true for small open economies, which do not have a large domestic market. However, such countries alone can face a disadvantage of low recognition and thus it is sometimes useful to be a part of a group of countries, which is known globally. In case of the Baltic States, membership in the European Union (EU) can be considered as an advantage.

The Baltic States are three small open economies – Estonia, Latvia and Lithuania, which have similar historical and economic development patterns and geographical characteristics. Regarding the competitiveness, this might mean that the Baltic States are competing with each other not only in their own markets, but also globally. Therefore the aim of the research is to reveal the competitiveness patterns of the Baltic States and their implications for further cooperation.

Literature shows various ways to evaluate the competitive advantages. One of them is related to calculation and analysis of revealed comparative analysis indexes (French, 2017). These indexes have been calculated both in gross exports terms and in the value added exports terms (Ozoliņa, 2016) with different and sometimes conflicting results. However the shortcoming of the value added approach is related to the data availability – data on value added exports can be obtained with the considerable lag and thus do not show the recent trends.

## Methodology of Research

The research uses Eurostat data on the EU trade since 1988 by SITC classification (Eurostat, 2017). Balassa index is used in this research (Eq. 1), however in this case it compares exports of the Baltic States with the exports of the EU, as this diminishes the differences between the trade regimes faced by the EU countries and the other countries.

$$RCA = \frac{X_{ij}/X_i}{X_{EUj}/X_{EU}}, \quad (1)$$

where RCA is the revealed comparative advantage index,  $X_{ij}$  is the value of the exports of a group of goods of a country,  $X_i$  is the total exports of a country,  $X_{EUj}$  is the EU exports of a group of goods and  $X_{EU}$  is the total exports of the EU. As this index does not allow making comparisons both in time and across countries, analysis concentrates on stating, which groups of goods show revealed comparative advantages in each of the countries (the value of the  $RCA > 1$ ) without judging, which one is more competitive.

Normalized revealed comparative advantage index is suggested as a tool for comparison (Ceglowski, 2017) and it was calculated also in this research for exports to all countries to check if the results show different comparative advantages. It was not the case in this research, therefore normalized comparative advantage indexes were not used.

## Findings/Results

Analysis of the broad export categories shows that all the Baltic States have comparative advantage in crude materials (SITC 2), Latvia and Lithuania – in food (SITC 0) and beverages (SITC 1), Latvia and Estonia in manufacture of goods classified by material (SITC 6) and Estonia and Lithuania also in mineral fuels (SITC 3) and miscellaneous manufactured articles (SITC 8). Latvia and Estonia have more competitive advantages in extra-EU exports, but less in intra-EU exports, however Lithuania has the same advantages.

More detailed analysis shows that Lithuania has more revealed competitive advantages in food products, Latvia comes the second. All the Baltic States have advantages in beverages, Lithuania also in tobacco products. Lithuania has more advantages also in crude materials and chemicals and related products. Latvia has more categories of products with revealed comparative advantages in manufactured goods classified chiefly by material, Estonia has more advantages in machinery and transport equipment and miscellaneous manufactured articles.

## Conclusions

The results of the analysis show not only the revealed comparative advantages in selling their own goods, but also in attracting transit flows. All the Baltic States have some similar groups of goods with the revealed comparative advantages; however there are also many groups, where each country is in a different position. Further analysis is needed to find out, in which fields could the Baltic States cooperate in order to strengthen their competitive advantages, and where each country should act individually.

## References

- Ceglowski, J. (2017). Assessing Export Competitiveness through the Lens of Value Added. *The World Economy*, 40(2), 275–296. doi:10.1111/twec.12362
- Eurostat. (2017). Database. Retrieved from <http://ec.europa.eu/eurostat/data/database>
- French, S. (2017). Revealed comparative advantage: What is it good for? *Journal of International Economics*, 106, 83–103. doi:10.1016/J.JINTECO.2017.02.002
- Ozoliņa, V. (2016). Value Added Exports And Competitiveness In The Baltic States. In *9th International Scientific Conference "Business and Management 2016."* VGTU Technika. doi:10.3846/bm.2016.51

The paper was supported by the National Research Program 5.2. EKOSOC-LV.