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Macedonia's exports toward Southeast Europe through the gravity model

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Abstract

Purpose – The purpose of this paper is to examine the export performance of the Republic of Macedonia to its main trading partners from Southeast Europe; hence, the authors focus on the major importing countries which are most present in the Macedonian trade balance.

Design/methodology/approach – The data used in this paper are analyzed with gravity model, which has good characteristics and very stable performance. Further, the data sample is formed on major importers form the Southeastern Europe region.

Findings – The results show that the domestic country GDP is positively correlated with the exports from the source country to target countries and that Balkan countries have positive propensities to import from Macedonia, however, it was found that populations of source country and target country are negatively correlated with exports from the source country to target countries. Additionally, the business cycles had no positive effect on Macedonian export to the target countries.

Originality/value – Based on pertinent theoretical concepts and existing empirical findings, and by applying up-to-date methodological approach, case studies might bring vital contribution to the literature, which eventually leads to solid policy and practice.

Keywords Macedonia, Gravity model, Exports, Southeast Europe

Paper type Research paper

1. Introduction – theoretical and literature framework

The gravity model has good characteristics and very stable performance throughout long-term lines of research on foreign trade flows. Furthermore, the basics of this analysis were founded on the grounds of the relationship between GDP and bilateral trade flows (Tinbergen, 1962).

Supplementary advances were made, especially in the area of product differentiation (Anderson, 1979) and competition models based on monopolistic structures, in addition to increasing returns to scale (Helpman and Krugman, 1987). Deardorff has made serious advances while proving that the gravity model can be validated from the standpoint of standard trade theories (Deardorff, 1995).

At length, the latest significant developments in the gravity model's use have progressed toward becoming an operational gravity model that was derived as a consequence of extended research and manipulation of the constant elasticity of substitution (CES) preferences and goods (i.e. the CES expenditure system by Anderson and Wincoop) in order to solve the border puzzle (Anderson and Wincoop, 2003; Anderson, 2011).

Most of the studies estimate the log-linear model for samples of countries. First, by disregarding countries that do not trade with each other, these studies give up important information inherent in the data, and generate biased estimates as a result (Helpman *et al.*, 2008). Second, Santos Silva and Tenreyro have shown that log-linearization of the

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