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Empirical Analysis of the Effects of Trade Openness on Economic Growth: An Evidence for South East European Countries

Merale Fetahi-Vehapi[a], Luljeta Sadiku[b*], Mihail Petkovski[c]

[a]*State University of Tetovo, Ilindenska nn. 1200 Tetovo*
[b]*State University of Tetovo, Ilindenska nn. 1200 Tetovo,*
[c]*Cyril and Methodius University, Skopje*

Abstract

This paper intends to analyze the effects of openness to trade on economic growth of South East European (SEE) countries. Although these countries are at different stages of development and integration with European Union, there are not highlighted differences on trade openness. Trade policies of them have been oriented towards regional trade cooperation and also integrating into the global economy. The empirical analysis of this study consists on 16- year panel data of 10 SEE countries over the period 1996 to 2012. The system GMM is used as the most appropriate estimation method that addresses various econometric challenges, including endogeneity problems. The growth rate of the sample countries is modelled as dependent on trade openness and a set of control variables such as: initial level of income per capita, human capital, gross fix capital formation, FDI, labour force and a number of interaction variables with trade openness. The estimation results indicate that the positive effects of trade openness on economic growth are conditioned by the initial income per capita and other explanatory variables, otherwise there is not robust evidence between these two variables. Moreover, the trade openness is more beneficial to countries with higher level of initial income per capita, as well as trade openness favours countries with higher level of FDI and with higher gross fixed capital formation.

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Keywords: Economic growth; trade openness; SEE- countries; dynamic panel; system GMM

* Corresponding author. Tel: +389 75 265 312; E-mail address: luljeta.sadiku@yahoo.com

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1. Introduction

The theoretical literature of growth and international trade reveals that trade stimulates the long-term growth. Thus trade, as a key component of the development path has made an increasingly significant contribution to economic growth in the most of countries. But what is it for South-East European Countries (SEE countries)[†]? Is there a case of individual heterogeneity? Therefore, to answer to these questions, this paper surveys empirically the effects of trade openness on economic growth in the SEE region.

International trade is believed to be one of the several catalysts of productivity and growth and hence its contribution is contingent on its weight in economic activity. A core finding from the comprehensive literature shows that internationally active countries tend to be more productive than countries which only produce for the domestic market. Moreover, international trade promotes the efficient allocation of resources and can lead to higher growth that may be converted into greater factor accumulation, especially to those economies associated with technology diffusion and knowledge spillovers.

Although the theoretical literature explores dominant support for the gains of international trade on economic growth, its impact is still an open and a debatable issue among scholars. A range of empirical studies, some of which will be mentioned throughout this paper, have established a positive relationship between these two variables. For instance, Sachs and Warner (1995); Edwards, (1998); Frankel and Romer (1999) provide support for the growth enhancing effect of international trade. Sachs and Warner examine the impact of trade liberalization on the growth of 122 countries and they summarize that open countries exhibit higher growth rates than protectionist ones. Also, Frankel and Romer (1999) indicate that trade openness generated higher income levels in a cross section of 63 countries in the year 1985. Also, the study conducted by Dollar and Kraay (2004) points out to a significant contribution of trade openness on economic growth. They reveal that greater trade openness (which is quantified by trade volume) brings about higher growth rates. More recently, Freund and Bolaky (2008) using cross-country data from 126 countries, find that trade openness has a positive impact on per capita income. Their results reveal that trade leads to higher standards of living in flexible economies, but not in rigid economies. Calderon et al. (2004) find that openness has positive effects on growth in high income countries, but detect no growth effect due to openness for countries with a low level of per capita income. In addition, Chang et al. (2009), highlight that the positive relationship between growth and openness may be significantly improved if complementary policies are undertaken.

However, Rodriguez and Rodrik (2001) re-investigate critically the conclusion of previous cross-country studies that openness is associated with higher rates of growth. They argue that a variety of measures of openness used in previous studies are proxies for other policy or institutional variables and the results that openness enhances growth are not robust. On the other hand, the main distinctive characteristic of the recent papers on this issue lies in the use of the Generalized Method of Moments (GMM) estimator on panel datasets. In this way, endogeneity and invariant omitted variables bias could be tackled. Generally speaking, empirical studies which rely on within-country variation mostly report robust growth benefits from trade liberalization (Daumal& Ozyurt, 2011).

In this paper, we take a close look at the most persuasive empirical studies on growth theory written by Solow (1956) and the augmented version used by Mankiw et al. (1992). However, our empirical analysis has been extended taking into account the trade openness index and following (Calderon et al. 2004, Chang et al. 2009) specification by involving an interaction term between trade openness and initial income per capita that allows the growth effect of openness to vary with the level of income per capita of countries.

For the empirical analysis is used the system GMM procedure proposed by (Arellano and Bover 1995; Blundell and Bond 1998) as the most appropriate estimation method that addresses various econometric challenges, including endogeneity problems. Our results are generally in line with the most of prior studies on this issue, that openness enhances growth, but it is conditioned by initial income per capita and other explanatory variables. Looking only on the relationship between GDP per capita and openness to trade with pooled OLS estimation, we find no robust

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[2]The SEE Countries (in the empirical analysis) include Albania, Bosnia and Herzegovina, Croatia, FYR of Macedonia, Serbia, Bulgaria, Romania, Greece, Serbia, Slovenia and Turkey. Countries like Slovenia, Greece and Turkey are considered in the sample because they are important trade partners of the other countries of this region, as well as to increase the sample ‘s size. Whereas Montenegro and Kosovo are excluded from the sample due to availability of the data for the period 1996-2012.