

The Relationship between Openness and Economic Growth in the Selected MENA Countries: A Bootstrap Panel Granger Causality Approach

Siavash Mohammadpoor⁷, Ali Rezazadeh⁸ and Ali Raoofi⁹

Received: 2018/9/3

Accepted: 2019/11/9

Abstract:

The relationship between the openness and economic growth is one of the controversial economic subjects and still there is no consensus among economists regarding the nature of their interaction. The existing disagreements are not only limited to theoretical areas but there are also some contradictory results in empirical studies. Empirical studies in this field can be divided into two general categories: The former is a group of studies which investigate the relationship between openness and economic growth using regression and cointegration techniques and the latter include studies which focus on the granger causality between these two variables. According to this classification, this study falls into the latter category. An important reason for the contradictions found in the empirical studies of the second category is that the cross-sectional correlations as well as the heterogeneity of the coefficients are not considered in these studies. In this regard, this study uses the Bootstrap Panel Granger Causality approach proposed by Konya (2006).

In the Konya's approach, there is no need to test granger causality jointly for all cross sections and the causality test can be carried out for all cross sections separately. The main advantage of this method over the Granger causality method in the time series framework (causality analysis separately for each cross section) is

¹ PhD student, Department of Economics, Institute for Management and Planning Studies, Tehran, Iran.(Corresponding Author)
(siavash.mohammadpoor@gmail.com)

⁸ Associate Professor, Department of Economics, Urmia University, Urmia, Iran.

⁹ PhD student, Department of Economics, Allameh Tabataba'i University, Tehran, Iran.

that the Konya's method uses the cross-sectional dependence information and it leads to more efficient estimates. Konya uses the SUR method for estimation to use this extra information. The advantage of the SUR method is that it also takes into account the variance-covariance matrix information, which makes estimates more efficient. Another advantage of the Konya's method is that the nonstationarity of the variables cannot affect the accuracy of the results, and therefore, within the framework of this model, it is not required to do unit root tests.

It should be noted that the data used in this study are related to the 9 selected countries of the MENA region from 1970 to 2016. The results of this study show that openness to international trade Granger-causes GDP growth in Algeria, Egypt, Iran, Morocco, Oman, Saudi Arabia and Tunisia while in Iraq and Malta there is no causality relationship between trade openness and economic growth. The causal relationship from economic growth to trade openness was not observed in any of the countries.

JEL classification: C21, C50, F10, F43

Keywords: Economic Growth, Trade Openness, MENA Countries, Bootstrap Panel Granger Causality Test