

THE IMPACT OF ECONOMIC FREEDOM ON GROWTH PROSPECTS OF SOUTHEAST EUROPEAN COUNTRIES

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Abstract

The main purpose of this study is to investigate the impact of economic freedom on the economic growth of southeast European countries. The period of the study includes years from 2000-2019. For this purpose, we apply different estimation methodologies; OLS, fixed and random effects model, and instrumental (IV) variable model. The results suggest a positive impact of economic freedom and freedom to trade index on the GDP growth and a negative impact of regulations on SEE countries GDP. The policy implications of the study are expected to enhance the already reinforced relevant institutional policies aimed at enhancing the EU approximation path of the selected SEE countries into the European Union, thus, speeding up the real convergence of the selected SEE countries into European Union political and economic structure.

Keywords: economic freedom, panel data, economic growth, SEE countries.

1. Introduction

The motivation for undertaking this study is to fill the gap in the literature related to institutional determinants of economic growth in the selected sample of countries of SEE region, moreover, because the updated literature in the field, especially for SEE pretending countries for EU membership is rather scant being in general in descriptive nature. In addition to the study of Hussain and Hague, (2016) we augment the empirical model by treating some of the institutional related factors that generally speaking are considered as objective measures for the institutional performance of the SEE countries.

The purpose of this empirical study is to study the non-economic determinants of economic growth in transition countries of South Eastern Europe. The undertaken empirical studies suggested by the growth literature suggest that transition countries with similar endowment of resources (at labor and capital base) will prosper as the dissimilarities in terms of non-economic factors (institutional related factors) between countries increases. Countries with resource endowments more encouraging to the business climate are likely to grow faster than the countries with resources less friendly to the business environments (Hussain and Hague, 2016).

The paper will cover transition countries of South-Eastern Europe (SEE hereafter), (Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, Serbia, Kosovo, Croatia, Bulgaria,

Slovenia, Romania, and Moldova). The principal objective of this undertaken study is to evaluate the non-economic determinants of economic growth in the selected sample of countries. Therefore, the primary research question asks which non – economic factors motivate, stimulate, and sustain growth prospects of the SEE countries, having regard to the heterogeneous nature of the countries selected within the sample, concerning the macroeconomic and institutional levels of development. In this regard, the research questions that are considered in this research article are:

1. Are there any evidence for the non-economic factors (most likely institutional related factors) which potentially can explain the economic growth prospects of the selected SEE countries? and
2. Do the size of non – economic factors have a significant and positive effect on growth prospects of the selected SEE countries, suggesting that a platform for potential institutional development of the countries is the right step that should be followed by policymakers?

Driven by Hussain and Hague, (2016) approach on measuring nation's differences concerning economic development and its relation to growth prospects, the research will focus a study on the impact of the institutional performance on growth prospects of the transition countries of South-Eastern Europe. In line with the empirical approach undertaken by Gartner & Lawson, (2003); Cole, (2003) Berggren, N (2003), and Hall, J.; Lawson, R (2014), we will use economic freedom as an overall index to capture the impact of the economic freedom on output growth of SEE countries. For instance, Brkić et al., (2020), suggested to be studied in future the sub-indices of economic freedom and not only economic freedom as a general index Also, but we will also use freedom to trade internationally as a sub-index that allows us to value the impact of the incentives of export promotion policies (namely exporting industries) on the output growth of SEE countries.

In terms of contribution to empirical evidence, this research study is expected to rich the existing body of literature, by examining empirically an institutional (non-economic factors)-growth nexus model, to analyze the nature of output growth in the selected SEE countries. In these circumstances, this study fills a part of the gap of empirical studies. Additionally, our study builds upon investigating subcomponents of economic freedom to see the way such indexes affect economic growth in SEE countries.

2. Literature review

In this section, we analyze the most relevant literature relating to the effect of economic freedom on economic growth. Generally, speaking the most updated literature on the impact of institutional factors on economic growth suggests that fewer countries that have fewer restrictions have also a higher level of economic growth. If economic freedom is stimulated by institutions, it would have a positive effect on their productivity and investments (Dawson,1998). The contribution of economic freedom to economic growth has been widely considered by different authors for both transition and developed countries and in most of them, a positive association was found. For instance, Mathers, R (2011), (Piątek et al., 2013), Gorchach & Roux, (2015) & Hussain & Haque, (2016), (Acikgoz et al., 2016), (Brkić et al., 2020) found a positive impact of economic freedom on economic growth.

If we refer to scientific research in earlier times, Haan & Sturm (2000); Adkins et al., (2002), found that the level of economic freedom at the beginning of the growth period studied does not

contribute significantly to explaining growth, but that positive changes in economic freedom do so.

Williamson, C. R., & Mathers, R (2011), using different methodologies of OLS estimation model, fixed effects (with robust standard errors), univariate and bivariate regressions, and regressions found that economic freedom highly affects economic growth. Additionally, Gorchach & Roux, (2015) studying 13 SADC countries for the period 2000-2009, using the GMM model, found a positive impact of economic freedom on economic growth. Also, Hussain & Haque, (2016) using fixed effect model a random effect model with two-panel data sets, the one includes 186 countries for the period from 2013 to 2015, another cover 57 countries in the period 2004-2014, found that economic freedom has a positive impact on growth prospects of the selected countries.

Doucouliaqos, C., & Ulubasoglu, M. A. (2006) using panel data analysis about 82 countries for the period 1970-1999 ascertained a positive direct impact of economic freedom on economic growth.

Bayar, 2016 gives evidence about the impact of economic freedom and trade openness on the economic growth of the transition economies in the European Union including Bulgaria, Croatia, and Slovenia during the period of the years 1996-2012. In his research work, he found that both trade openness and economic freedom variables affect positively economic growth.

Brkić et al., 2020 worked with a robust dynamic panel data model which includes 43 developed and developing countries and found a positive impact of economic freedom on the economic growth of these countries.

Besides, it is very important to highlight that not all sub-components of economic freedom impact economic growth on the same level. Hence, (Acikgoz et al., 2016) using the fiscal freedom index, business freedom index for measuring the economic freedom index, found that generally each of the used variables plays an important role in economic growth. This analysis treats three groups of countries, and the impact differs to an extent, for instance, fiscal freedom has a positive impact on economic growth for all groups of countries, however, the business freedom index positively impacts the economic growth of two groups of countries.

Within the literature, a renewed interest has been showing to find whether economic freedom and economic growth have a causal link. As concern to the causality in the relationship between political and economic freedom and economic growth in transition countries, using the Granger causality test, Piątek et al., (2013) suggests that Economic Freedom cause economic growth, but on the other hand emphasizes that political freedom is neutral for economic growth Similarly, Justesen (2008) discussing whether economic freedom causes economic growth or only has an impact on it, found that economic freedom causes economic growth. Ken Farr, W et al., (1998) found a causality between economic freedom and economic growth, thus more economic freedom enhances economic growth and vice versa. Also, in a manner similar, Dawson (2002) studying causality between economic freedom and economic growth has found that economic freedom fosters growth from a causal perspective.

Having regard, the scarcity of empirical evidence on the tested hypothesis related to growth nexus institutional factors in the SEE countries, the study will try to contribute to empirical evidence by relying on institutional factors affecting economic growth in SEE countries.

3. Research Methodology and data

In empirical regards, the study focuses on the use of the Economic freedom summary index and sub-indices such as Freedom to trade internationally, Regulations, Legal system & property rights, as explanatory factors to the economic growth. Economic growth is measured by a yearly increase

of the deflated GDP (real GDP). The data of economic freedom are taken from Economic Freedom of the World, while the data on real GDP growth is sourced from the World Bank data set. For estimation purposes, we used pooled OLS, fixed and random effect estimates model to assess the impact of the non-economic determinants of economic growth in transition countries of South-Eastern Europe over the period 2000 to 2019. Also, we used the Hausman Taylor IV model which gives the opportunity of finding a solution for the endogeneity problem, (Fetai & Mustafi, 2017).

3.1 Empirical model

We designed a panel data set for SEE countries and use yearly data for a time span 2000 – 2019. The dependent variable is the country growth prospect measured by real GDP growth rates and the explanatory variables are: economic freedom as an overall index, legal property rights, regulations, and freedom of trade. The index of economic freedom covers freedom to trade internationally, legal system & property rights, regulation in 186 countries, which in our case is 11 countries. Since, Pooled OLS is biased in the models with heterogeneous data (Baltagi et al., 2016; Fetai, 2018) also, it violates the assumption related to standard errors which should follow a normal distribution with a mean equal to zero and standard deviation equal to 1; $e_i \sim N(0,1)$. Hence, we refer to Hausman Taylor IV for an explanatory analysis of the impact of economic freedom variables on the economic growth of transition countries of South-Eastern Europe over the period 2000 to 2019. Hausman Taylor model is based upon an instrumental variable estimator which uses both the between and within the variation of the exogenous variables as instruments (Baltagi & Liu, 2012). Wherefore, Hausman–Taylor solves endogeneity problems, a very important issue from the econometrics point of view. Hausman and Taylor equation can be written as follows:

$$y_{it} = c + \beta_1(y_{it-1}) + \beta_2(efw_{it}) + \beta_3(R_{it}) + \beta_4(LSPR_{it}) + \beta_5(FR_{it}) + u_{it}$$

y_{it} is a dependent variable measured by a yearly increase of the deflated GDP for each country i and each year specified with t for the period of years 2000–2019. The explanatory variables start with y_{it-1} which is lagged dependent variable-1; efw_{it} is an overall index of economic freedom, continuing with the sub-indices of economic freedom such as R_{it} for regulations; $LSPR_{it}$ which means legal system property rights and FR_{it} Freedom to trade internationally. Subsequently, u_{it} is for random error.

3.2 Descriptive Statistics

In this section, Table 1, display summary statistics about the data set of observations including Mean, Standard Deviation, Minimum, and Maximum. As well, information regarding the data, are presented in tables A1; A2.

Table 1. Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ilngdp c pp	220	1.27	.417	.043	1.824
lngdp c pp lag1	194	1.325	.636	-1.136	2.479
ilnecon free	220	1.926	.045	1.8	1.97
ilnFree trade	220	2.018	.043	1.957	2.085
ilnregulation	220	1.958	.048	1.849	2.022

ilnlegal pr	220	1.628	.044	1.562	1.686
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4. Empirical section and results

In this section, we try to examine and present the results of regressions analyzed by OLS, Fixed effect, Random effect, and Hausman Taylor IV. Furthermore, the fixed-effects model for the index of economic freedom does not lead to reasonable results, which can be said that the model has a low-explanations. A disadvantage of the fixed effect estimator is that it eliminates the effects of time-invariant variables (Baltagi & Liu, 2012). Hausman Taylor has an advantage in this issue, including the identification of the condition's coefficients, of time-invariant regressors (Schmidt & Sickles, 1984). Hence, the Hausman Taylor model solves the problem of endogeneity. Additionally, considering these issues, Hausman Taylor IV analysis changes the estimated coefficients expectedly, as can be seen, and reported in Table 1. Considering column (4) of table 1, economic freedom as an overall index has a positive effect on economic growth and the coefficient is statistically significant, showing that, 1 percent increase in a few (economic freedom) leads to, on average of 4.029 per cent increase on GDP growth, ceteris paribus. The result confirms the raised hypothesis related to the positive impact of economic freedom on GDP growth. Regulation is found to be on a negative relationship with GDP growth, which means that as the relevant institutional policies within the sample of SEE countries promote regulating policies, increases, contrary to expectations, GDP is expected to decrease. Put differently, a 1 percent increase in R (regulations) leads to, on average of 10.06% on GDP decline, when all other factors are held constant. Subsequently, freedom of trade is with a positive coefficient (5.736) and with strong evidence of significance value, which means that a 1 percent increase in FR (Freedom to trade internationally) leads to, on average of 5.736% on GDP growth, ceteris paribus. The results that the economic freedom index has a positive impact on economic growth in southeast European countries is consistent with the findings of Vukotić, & Baćović, 2006. As well many other studies both in developed and developing countries treated this study and found a positive impact of economic freedom on GDP growth Barro, (1994); Cole (2003), Williamson, C. R., & Mathers, R (2011), Piątek, et al., (2013); Türedi, (2013) Gorlach & Roux, (2015) & Hussain & Haque, (2016), Acikgoz et al., (2016), Brkić et al., (2020). On the other hand, the study of Carlsson & Lundström (2002), found that economic freedom as an overall index cannot measure or value the specific environment of each country and does not cause growth, although it does not mean that economic freedom is not good for the economy. Haan & Sturm (2000); Adkins et al., (2002) in addition, studied about this relationship, where according to them, economic freedom does not cause direct economic growth, but positive changes in economic freedom do so.

Table 2. Regression results

	I OLS	II Fixed effect	III Random effect	IV Hausman Taylor IV
VARIABLES	ilngdp_c_pp	ilngdp_c_pp	ilngdp_c_pp	ilngdp_c_pp
ilnecon_free	4.709**	1.146	1.146	4.029*
Se	(2.077)	(2.204)	(2.152)	(2.107)
ilnregulation	-11.51***	-7.366***	-7.366***	-10.06***
Se	(2.186)	(2.356)	(2.301)	(2.263)

lnlegal_pr	1.610***	-0.305	-0.305	0.859
Se	(0.479)	(0.648)	(0.633)	(0.522)
lngdp_c_pp_lag1				0.197***
				(0.0451)
lnFree_trade	6.005***	3.328***	3.328***	5.736***
Se	(1.005)	(1.168)	(1.140)	(1.040)
Constant		7.265***	7.265***	
		(1.690)	(1.650)	
Observations	220	220	220	194
R-squared	0.919	0.231		
Number of cod		11	11	11

Note: *Statistically significant at 10% level, ** statistically significant at 5% level, *** statistically significant at 1% level; standard errors are within the brackets

Source: Author's calculations

Although all these studies used different indices, they show similar results. In this regard, many studies suggest a positive relationship between these variables, notably economic freedom has found to have a positive impact on GDP growth in different countries. Also, as mentioned above in empirical findings of this study, FRI (Freedom to trade internationally) has a positive impact on the GDP growth of SEE countries, which means if a country has the freedom to trade internationally, likewise will bring economic growth. The expected growth originated from export industries is likely to produce beneficiary effects on other sectors of the economy through both horizontal and vertical linkages, thus, making the output growth more productive. Hence, according to standard trade theory (Helpman and Krugman, 1985) and the theory of competitive advantages (Porter H. M, 1990), it is expected that, as the SEE countries utilize the economic sectors with significant comparative advantage, the growth of the domestic economy is becoming more productive and is on beneficiary relation with the foreign targeted market. However, regulations as a subindex of economic freedom have a negative impact on the economic development of the studied countries.

5. Conclusion

The study contains and's based on empirical findings of the impact of economic freedom on growth prospects of Southeast European countries including Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, Serbia, Kosovo, Croatia, Bulgaria, Slovenia, Romania, and Moldova for a period from 2000-2019.

Employing various econometric models, we investigated whether non-economic factors can explain and have a significant positive impact on the economic growth prospects of the selected SEE countries.

The Hausman Taylor (IV) test shows that economic freedom supports economic growth in SEE selected countries. The other control variables cover Freedom to trade internationally which is found to have a positive impact on economic growth, while regulation implies a negative impact on the economic growth of selected studied countries.

The size of non – economic factors and their impact on growth prospects of the selected SEE countries is related to the magnitude of the coefficients of the regressors. Hence, following the

results, one percentage change in the regressors is associated with a much higher change in the dependent variable, which means that the coefficients of the regressors are proved to be sensitive. It is noteworthy that economic growth for SEE countries is one of the main prerequisites and very important for a better European future. Depending on this fact, this paper largely supports the positive relationship between economic freedom and economic growth, therefore the more economic freedom SEE countries have the more economic development will bring and will strengthen a united European future. Finally, as economic freedom leads to economic growth, it is tremendously beneficial for the selected SEE countries to develop democratic institutions and economic freedoms, especially for transition countries and for countries aiming at sustainable economic growth.

In terms of future studies, other institutional related factors covering economic freedom can be measured. Besides, can be studied the relationship between economic freedom and other macroeconomic indicators to capture the impact of economic freedom over a wide area.

Appendix

Table A1. The South East European Countries

Countries of the South East Europe
Albania
Bosnia and Herzegovina
Bulgaria
Croatia
Kosovo
Moldova
Montenegro
North Macedonia
Romania
Serbia
Slovenia

Table A2. Variable description

Variables	Code
Economic growth	ilngdp c pp
Economic freedom	ilnecon free
Freedom to trade internationally	ilnFree trade
Regulation	ilnregulation
Legal system & Property rights	ilnlegal pr

References

- [1]. Acikgoz, B., Amoah, A., & Yilmazer, M. (2016). Economic freedom and growth: A panel cointegration approach. *Panoeconomicus*, 63(5), 541-562.
- [2]. Adkins, L. C., Moomaw, R. L., & Savvides, A. (2002). Institutions, freedom, and technical efficiency. *Southern economic journal*, 92-108.
- [3]. Baltagi, B. H., & Liu, L. (2012). The Hausman–Taylor panel data model with serial correlation. *Statistics & Probability Letters*, 82(7), 1401-1406.
- [4]. Baltagi, B. H., Egger, P. H., & Kesina, M. (2016). Firm-Level Productivity Spillovers in China's Chemical Industry: A Spatial Hausman-Taylor Approach. *Journal of applied econometrics*, 31(1), 214-248.
- [5]. Bayar, Y. (2017). Impact of openness and economic freedom on economic growth in the transition economies of the european unión. *South-Eastern Europe Journal of Economics*, 14(1).
- [6]. Berggren, N. *The Benefits of Economic Freedom: A Survey. Indep. Rev.* 2003, 8, 192–211
- [7]. Brkić, I., Gradojević, N., & Ignjatijević, S. (2020). The Impact of Economic Freedom on Economic Growth? New European Dynamic Panel Evidence. *Journal of Risk and Financial Management*, 13(2), 26.
- [8]. Carlsson, F., & Lundström, S. (2002). Economic Freedom and Growth: Decomposing the Effects. *Public Choice*, 112(3), 335–344.
- [9]. Cole, J. H. (2003). Contribution of Economic Freedom to World Economic Growth, 1980-99. *Cato J.*, 23, 189.
- [10]. Dawson, J. (1998). Institutions, Investment, and Growth: New Cross-country and Panel Data Evidence, *Economic Inquiry*. 36: 603–619.
- [11]. Dawson, J. W. (2003). Causality in the freedom–growth relationship. *European Journal of Political Economy*, 19(3), 479-495.
- [12]. De Haan, J., & Sturm, J. E. (2000). On the relationship between economic freedom and economic growth. *European Journal of Political Economy*, 16(2), 215-241.
- [13]. Fetai, B. T. (2018). Does financial development accelerate economic growth?. *Journal of Financial Economic Policy*.
- [14]. Fetai, B. T., Mustafi, B. F., & Fetai, A. B. (2017). An empirical analysis of the determinants of economic growth in the Western Balkans. *Scientific Annals of Economics and Business*, 64(2), 245-254.
- [15]. Gwartney, James, and Robert Lawson. "The concept and measurement of economic freedom." *European Journal of Political Economy* 19.3 (2003): 405-430.
- [16]. Hall, J.; Lawson, R. *Economic Freedom of the World: An Accounting of the Literature. Contemp. Econ. Policy* 2014, 32, 1–19
- [17]. Helpman, Elhanan & Paul Krugman. (1985). *Market Structure and Foreign Trade*. Cambridge, Mass. MIT Press
- [18]. Hussain, M. E., & Haque, M. (2016): Impact of Economic Freedom on the Growth Rate: A Panel Data Analysis, *Economies MDPI*, vol 4, nr 5: doi:10.3390/economies4020005
- [19]. Justesen, M. K. (2008). The effect of economic freedom on growth revisited: New evidence on causality from a panel of countries 1970–1999. *European Journal of Political Economy*, 24(3), 642-660.
- [20]. Ken Farr, W., Lord, R. A., & Wolfenbarger, J. L. (1998). Economic freedom, political freedom, and economic well-being: a causality analysis. *Cato J.*, 18, 247.
- [21]. Le Roux, P. (2015). The impact of economic freedom on economic growth in the SADC: an individual component analysis. *Studies in Economics and Econometrics*, 39(2), 41-61.
- [22]. Michael E Porter (1990); *Competitive Advantage of Nations*, *Harvard Business Review*
- [23]. Piątek, D., Szarzec, K., & Pilc, M. (2013). Economic freedom, democracy and economic growth: a causal investigation in transition countries. *Post-Communist Economies*, 25(3), 267-288.
- [24]. Schmidt, P., & Sickles, R. C. (1984). Production frontiers and panel data. *Journal of Business & Economic Statistics*, 2(4), 367-374.
- [25]. Türedi, Salih. 2013. The Effect of Economic Freedom on Economic Growth: A Panel Data Analysis for 12 Islamic Countries. *International Research Journal of Finance and Economics* 107: 154–62.
- [26]. Vukotić, V., & Baćović, M. (2006). Economic freedom and economic growth in South East Europe. *Transition Studies Review*, 13(1), 81-91.

- [27]. Williamson, C. R., & Mathers, R. L. (2011). Economic freedom, culture, and growth. *Public Choice*, 148(3-4), 313-335.
- [28]. Wooldridge, J. M. (2002). *Econometric Analysis of Cross Section and Panel Data*. Cambridge, Mass.:MIT Press.