THE RULE OF LAW AND ECONOMIC GROWTH IN THE BALKAN STATES

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ABSTRACT

The main aim of the paper is to evaluate whether the rule of law affects economic growth in the Balkan states. The reference period is the period 2000–2015 due to data availability. As indicators of the legal environment the Rule of Law Index (the Worldwide Governance Indicators) and Property Rights Index (the Index of Economic Freedom) are employed. The paper uses panel data regression analysis (OLS with fixed effects) for the purpose of identification and quantification. The results indicate that improvement of the rule of law has not statistically significant effect on growth in the Balkan countries. On the other hand, the higher level of property rights might support economic development in the countries, but simultaneously the positive changes prove to be in five-year horizon.

KEY WORDS

transition economies, economic growth, rule of law

JEL CODES

K11, O11, P26

1   INTRODUCTION

The relationship between the rule of law and economic development is frequently discussed within (new) institutional economics. The Balkan countries, with the exception of Greece, executed the very similar historical development after the end of World War II when they were included into the Eastern Bloc. Within the Balkan states we can identify two groups. Relatively successful economies (Bulgaria, Croatia, Romania and Slovenia), which have executed economic and political transformation, and the rest economies, which are lagging behind. Slovenia has executed the most successful transformation and has reached the same level as the developed market economies. Other relatively successful countries

(Bulgaria, Croatia and Romania) have become members of EU, but on the other hand the institutional environment has been suffered from persisting problems in the economies. The low level of institutions is characteristic feature of the remaining states. And there is the principal question of the paper to what extent the newly established formal (legal) institutions have affected economic development in transition economies.

The main aim of the paper is to evaluate whether the rule of law affects economic growth in the Balkan states. The literature review provides a survey of the current empirical literature. The regression analysis, used proxies and a sample of the observed countries are described in Methodology. The Results includes a panel data regression analysis with using fixed effects models. Conclusions summarises the major findings.

2   THEORETICAL BACKGROUND

The paper is based on the new institutional economics, which it means that we consider institutions to be a key factor in economic growth. Institution is a wide term with many different definitions. North (1990, p. 3) defines institutions as a *"set of formal rules (rights, laws, political system, markets, etc.) and informal rules of conduct (norms, traditions, religions, etc.) that facilitate coordination or govern relationships between individuals and groups"*, in short *"humanly devised constraints that structure political, economic and social interactions"* (North, 1994, p. 360). Hodgson (2006, p. 2) adds that institutions *"are systems of established and extended social rules that create human interaction"*. Dixit (2009, p. 8) characterised formal institutions as *"rules of the political game of governance"*, whereas informal institutions *"enable information searches, define behaviour norms and sanctions for violations"*.

The aim of the new institutional economics is to *"explain institutional factors, their development and effect on economic output, efficiency and distribution"* (Kherallah and Kirsten, 2002, p. 111). Well defined institutions form an environment supporting economic activities and economic development, whereas extractive institutions lead to economic stagnation (Acemoglu and Robinson, 2012). The democratic system and compliance with the rule of law are two characteristics which affect economic performance. Also, there are two other areas, protection of property rights and corruption, which are associated with rule of law

(Butkiewicz and Yanikkaya, 2006). In developing countries informal institutions contribute to the formation of formal institutions and to the functioning of markets (Casson et al., 2010).

If we focus on the influence of the rule of law (formal institution) on economic growth, Haggard and Tiede (2011, p. 674) state four theoretical channels: *"mitigation of violence, protection of property rights, institutional checks on government and control of private capture and corruption"*. In more detail, personal protection is essential to the protection of property rights. The low level of rule of law is related to negative economic consequences (e.g., anarchy, extortion and private predation), whereas good protection of property rights leads to stable long-term economic growth. Simultaneously only independent justice and institutional checks on government can ensure enforcement of property rights and decrease risk of expropriation. The control of corruption is the last channel. If subjects cannot rely on equal treatment by the courts, it means the courts cease to be reliable and independent institutions for dispute resolution, then subjects are forced to return to the expensive option of private enforcement. Rent-seeking and corruption increase costs for producers and consumers. The both characteristics cause distortions and produce barriers (e.g., emergence of monopolies, restrictions on market entry, protectionism and bad reallocation of government resources) to long-term economic growth (Acemoglu and Robinson, 2012).

In accordance with Haggard and Tiede (2011), the paper is focused on rule of law

(general view) and protection of property rights (essential part of legal system). The other two areas (institutional checks on government and corruption) are omitted due to range of the paper. According to Pere (2015) good governance indicators (rule of law and political stability) have a positive impact on capital formation to GDP and economic growth in the Balkan countries. In case of transition economies Beck and Laeven (2006) state similar results. Concurrently Pere (2015, p. 38) adds that economic performance of the Balkan states is also highly influenced by internal (economic convergence) and external (development of global economy) factors. To sum up the topic has not been sufficiently investigated in case of the Balkan states yet.

3 METHODOLOGY

The chapter is divided into three parts. First of all, a sample of countries and econometric methods are described. Then the individual explanatory variables are introduced. Finally, the regression models are presented.

The paper is focused on the nine Balkan states, namely Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Montenegro, Romania, Serbia and Slovenia. Kosovo is not included due to data availability.

Influence of formal (legal) institutions on economic performance within the Balkan states is quantified through panel data analysis. The paper omits pooled OLS, because the method does not take structure of panel data and influence of the individual unobserved effects into consideration. Therefore, we prefer standard static panel data methods, it means fixed and random effects. We use the Hausman test for the determination of a suitable method (random effects are preferred under a null hypothesis while preference for fixed effects is an alternative hypothesis). We assume the employment of fixed effects, because economic and institutional proxies change over time, especially in the case of the transitional economies. Durlauf et al. (2005, pp. 627–636) describe the advantages and disadvantages of regression models with fixed effects in the context of economic growth.

Econometric verification is carried out by testing the occurrence of the unit root (the Fisher-type test and the Im-Pesaran-Shin test)[1], homoscedasticity (the Wald test) and serial autocorrelation (the Wooldridge test). Drukker (2003) and Wooldridge (2010) selected the tests. The reference period is the period of 2000–2015 due to data availability. The short time span limits the results, because it does not enable the evaluation of the long-term effects of the rule of law on economic growth. To sum up, the regression model contains only 9 cross-sectional and 16 time units.

As the dependent variable in the following regressions, Growth (annual percentage growth rate of GDP per capita, constant 2010 prices $; the World Bank Group, 2017a) is employed. The explanatory proxies are divided into three groups, used proxies in basic model, additional control variables ensuring robustness of results and two institutional indicators representing rule of law.

3.1 Explanatory Variables

The regression model is based on the augmented aggregate production function (Barro, 1991; Mankiw et al., 1992) with specific application (Pere, 2015). In accordance with the authors the basic regression model comprises four proxies, GDP per capita (constant 2011 international $, logarithmic form), Investments (gross fixed capital formation, % of GDP), Government (general government final consumption expenditure, % of GDP) and Trade (sum of exports and imports, % of GDP). The World Development Indicators database (the World Bank Group, 2017a) is used as data source

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[1] Compared to the Levin-Lin-Chu test, both tests do not require strongly balanced panel data and have a null hypothesis, that is, all the panels contain a unit root. Tests include the time trend and lags structure (1).

for all proxies in basic model. In accordance with Barro (1991) and Haggard and Tiede (2011), we consider GDP per capita to be initial conditions (proxy for economic development; lagged values in regression analysis) and three variables as input factors (gross fixed capital formation, government final consumption expenditures and integration into internal trade). Within the literature dealing with economic consequences of institutions there are several very similar regression models, e.g., Bonnal and Yaya (2015), Durham (1999) and Sandalcilar (2013).

The robustness of results is ensured through incorporation of three additional control proxies into the basic model. There are Expected years of schooling (UNDP, 2017), Polity Score (value is difference between the Institution-alised Democracy and the Institutionalist Autocracy according to methodology of the Polity IV Project; Marshall et al., 2014) and Economic growth in OECD countries (average economic growth in OECD member states; the World Bank Group, 2017a). The first two variables are standard control proxies which represent two important prerequisites of economic growth, human capital and democratic arrangement. Therefore, the variables are lagged by one year. While the third proxy is based on assuming that economic development of the Balkan countries, as relatively small economies, is affected by the economic growth in developed countries (Pere, 2015).

Within evaluating and measuring of the legal system the paper employs two institutional indicators. The first represents general view (the Rule of Law Index of the Governance Matters) whereas the second, the Property Rights Index (the Index of Economic Freedom), expressing the essential part of legal system. The both expressions are in accordance with Haggard and Tiede (2011) whilst Beck and

Laeven (2006) and Pere (2015) use only the first mentioned proxy. We consider the indicators of institutional quality for prerequisites therefore the institutional proxies are lagged by one year and five years. Using five-year lags proceeds from theory (e.g., Williamson, 2000).

The Rule of Law of the Governance Matters[2] captures *"perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence"*. The index has range from -2.5 (the worst level) to 2.5 (the best level; the World Bank Group, 2017b).

According to the Heritage Foundation (2016), the protection of property rights *"give citizens the confidence to undertake entrepreneurial activity, save their income, and make long-term plans because they know that their income, savings, and property (both real and intellectual) are safe from unfair expropriation or theft"*. The proxy, Property Rights, consists of five sub-factors (Physical property rights, Intellectual property rights, Strength of investor protection, Risk of expropriation, Quality of land administration) and the index has range from 0 (government expropriation of property is likely) to 100 (legal protection of property is maximally effective).

3.2   Regression Models

To sum up, there is basic model (equation 1) which is subsequently extended by three additional variables due to ensuring of robustness test (equation 2). The logarithmic form is used for GDP per capita. Institutional proxies are single added-to benchmark regressions in order to avoid the problem of multicollinearity. Likewise, the additional control variables are tested one by one. The regression models are following:

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[2]The Governance Matters evaluates level of governance in 215 economies. The index includes six dimensions of governance, voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law and control of corruption. For more detail, see Kaufmann et al. (2011).

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\begin{aligned}
\text{Growth} \;=\; & \beta_0 + \beta_1 \log \text{HDPpc}_{i,t-1} + \\
& + \beta_2 \, \text{Investments}_{it} + \\
& + \beta_3 \, \text{Government}_{it} + \\
& + \beta_4 \, \text{Trade}_{it} + \\
& + \beta_5 \, \text{RuleOfLaw}_{i,t-1/t-5} + \\
& + \mu_{it}, \qquad\qquad\qquad (1)
\end{aligned}
$$

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\begin{aligned}
\text{Growth} \;=\; & \beta_0 + \beta_1 \log \text{HDPpc}_{i,t-1} + \\
& + \beta_2 \, \text{Investments}_{it} + \\
& + \beta_3 \, \text{Government}_{it} + \\
& + \beta_4 \, \text{Trade}_{it} + \beta_5 \, Z_{i,t-1} + \\
& + \beta_6 \, \text{RuleOfLaw}_{i,t-1/t-5} + \\
& + \mu_{it}, \qquad\qquad\qquad (2)
\end{aligned}
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where i and t are country and year indicators, Growth$_{it}$ represents the economic growth proxy, $\log \text{GDPpc}_{i,t-1}$ is GDP per capita lagged by one year (logarithmic form), Investments$_{it}$ is gross fixed capital formation (% of GDP), Government$_{it}$ is general government final consumption expenditure (% of GDP), Trade$_{it}$ is sum of exports and imports to GDP, RuleOfLaw$_{i,t-1/t-5}$ are two proxies representing the quality of legal system (Rule of Law of the Governance Matters, Property Rights of the Index of Economic Freedom) lagged by one year and five years, Z_{it} are additional control proxies ensuring robustness of results (Expected years of schooling, Polity Score of the Polity IV Project and Economic growth in OECD countries), μ_{it} is an unobserved error term.

4   RESULTS

First of all, the cointegration of unit roots was verified by the Fisher-type test and the Im-Pesaran-Shin test. The fixed effects method is chosen according to the results of the Hausman test.[3] The model incorporates heteroscedasticity (the Wald test) and serial autocorrelation (the Wooldridge test), therefore the robust standard errors are used (see Hoechle, 2007). The results are divided into two tables, in which the influence of the individual institutional proxies (Rule of Law and Property Rights) on economic performance is investigated. Robustness of results is ensured by two means; the basic model is gradually extended by three additional control proxies and simultaneously the institutional variables are lagged by one year and five years. Also lagging the institutional variables is one way to try to deal with the issue of endogeneity problem.

Tab. 1 shows results for the Rule of Law Index of the Governance Matters. If we focus on explanatory variables, three out of four proxies are statistically significant (GPD per capita, Investments, Trade). In case of additional control proxies, we can see that development of

global economy (OECD countries) has significant influence and also level of democracy may have effect in five-year horizon. The regression coefficients can be interpreted that an increase in investments and growth in OECD countries of one percentage point leads to an increase in the growth of GDP per capita of about 0.28 and 0.81 percentage point. Provided the average economic growth in the Balkan states was 4.92%, it means growth of real GDP per capita is affected about 5.7% (investments) and 16.5% (OECD countries growth).

In case of rule of law, it seems to be that change in improvement of legal system does not lead to higher economic performance in one-year or five-year horizon. The last findings are contrary to Beck and Laeven (2006), Brunetti et al. (1997) and Pere (2015). On the other hand, in comparison with the mentioned authors, we use different period (2000–2015 compared to 1990s and 1996–2012) and more suitable regression method (fixed effects compared to OLS and random effects). If we consider the Balkan states to be developing countries, our findings are in accordance with Haggard and

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[3]We reject the null hypothesis about the preference of random effects in favour of an alternative hypothesis about the preference of fixed effects. A χ^2 is 67.47 (p-value 0.00).

Tab. 1: Rule of law and economic growth in the Balkan states

OLS Fixed effects	Rule of Law Index $(t-1)$				Rule of Law Index $(t-5)$			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Log GDP per capita $(t-1)$	−0.14*** (−4.4)	−0.15*** (−3.2)	−0.14*** (−4.3)	−0.06** (−3.2)	−0.16*** (−4.5)	−0.16** (−3.3)	−0.17*** (−5.3)	−0.08*** (−5.5)
Investments	0.26*** (3.9)	0.26*** (3.3)	0.26*** (3.8)	0.27*** (6.2)	0.28*** (4.28)	0.28*** (3.6)	0.3*** (5.3)	0.3*** (7.3)
Government	−0.36 (−1.8)	−0.36 (−1.8)	−0.35 (−1.7)	−0.1 (−0.7)	−0.36 (−1.7)	−0.36 (−1.6)	−0.2 (−0.9)	−0.15 (−1.04)
Trade	0.07** (3.2)	0.07*** (3.1)	0.07*** (3.6)	0.03 (1.8)	0.08*** (4.2)	0.08*** (4.1)	0.08*** (3.4)	0.04** (2.3)
Expected years of Schooling $(t-1)$		0.001 (0.24)				0.001 (0.1)		
Polity Score $(t-1)$			0.02 (0.06)				0.93*** (6.2)	
OECD countries growth				0.83*** (6.2)				0.81*** (6.04)
Rule of Law Index $(t-1)$	−0.002 (−0.12)	−0.001 (−0.07)	−0.002 (−0.14)	−0.01 (−1.02)				
Rule of Law Index $(t-5)$					0.01 (0.4)	0.01 (0.5)	−0.001 (−0.01)	0.01 (0.6)
N	142	142	142	142	134	134	134	134
R^2 (within)	0.52	0.52	0.52	0.71	0.56	0.56	0.61	0.74

Notes: (.) denotes t-statistic, */**/*** means a significance level of 10%/5%/1%; robust standard errors are included; R^2 means adjusted (within) R-squared.

Tab. 2: Property rights and economic growth in the Balkan states

OLS Fixed effects	Property Rights Index $(t-1)$				Property Rights Index $(t-5)$			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Log GDP per capita $(t-1)$	−0.14*** (−4.5)	−0.15*** (−3.6)	−0.14*** (−4.5)	−0.07** (−4.6)	−0.14*** (−4.7)	−0.14** (−3.1)	−0.14*** (−4.8)	−0.07*** (−4.5)
Investments	0.25*** (3.5)	0.25*** (3.3)	0.25*** (3.4)	0.27*** (5.4)	0.26*** (3.9)	0.26*** (3.5)	0.26*** (3.94)	0.29*** (6.96)
Government	−0.37 (−1.8)	−0.36 (−1.8)	−0.36 (−1.8)	−0.12 (−0.9)	−0.35 (−1.7)	−0.35 (−1.8)	−0.35 (−1.7)	−0.11 (−0.8)
Trade	0.06** (2.8)	0.06** (2.7)	0.06*** (3.2)	0.027 (1.6)	0.07** (2.9)	0.07** (2.8)	0.07*** (3.5)	0.03 (1.7)
Expected years of Schooling $(t-1)$		0.002 (0.4)				−0.001 (−0.03)		
Polity Score $(t-1)$			0.04 (0.1)				0.01 (0.02)	
OECD countries growth				0.82*** (6.1)				0.79*** (6.3)
Property Rights Index $(t-1)$	−0.03 (−0.5)	−0.04 (−0.6)	−0.03 (−0.6)	−0.03 (−0.6)				
Property Rights Index $(t-5)$					0.08* (2.03)	0.08* (1.95)	0.08* (2.05)	0.05* (2.13)
N	142	142	142	142	142	142	142	142
R^2 (within)	0.52	0.53	0.52	0.7	0.54	0.54	0.54	0.71

Notes: (.) denotes t-statistic, */**/*** means a significance level of 10%/5%/1%; robust standard errors are included; R^2 means adjusted (within) R-squared.

Tiede (2011). To sum up, the Rule of Law Index does not explain differences in economic performance because the differences are given by the other factors (Pere, 2015).

In Tab. 2, there are results for the Property Rights Index of the Index of Economic Freedom. The index was selected because the paper considers protection of property rights to be essential part of legal system. We can see that the improvement of property rights protection has statistically insignificant effect on economic performance in one-year horizon, whereas there is positive significant impact in five-year horizon. The paper offers two explanations. First of

all, changes in formal institutions have long-run consequences (see Williamson, 2000). Secondly, the index has nearly time invariant character. The regression coefficients can be interpreted that an increase in quality of property rights of one percentage point leads to an increase in the growth of GDP per capita of about from 0.05 to 0.08 percentage point. Provided the average economic growth in the Balkan states was 4.92%, it means growth of real GDP per capita is affected about from 1.02% to 1.6% in five-year horizon.

5   CONCLUSIONS

The main aim of the paper was to evaluate the relationship between the rule of law and economic growth in the Balkan states. The main contribution of the paper is associated with the fact that the topic has not been sufficiently investigated yet. Also, contribution to discussion about economic consequences of the established institutions during transition period is purpose of the paper. The results indicate that the improvement of quality of legal system has not statistically significant effect on economic performance within the Balkan states. On the other hand, we can identify statistically significant positive impact of higher protection of property rights (according to methodology of the Index of Economic Freedom) in five-year horizon. In accordance with Pere (2015) the findings suggest that differences in economic performance are given by the other internal (convergence effect, capital formation) and external (integration into international trade and economic development in OECD countries) factors.

The relevance of results is limited due the short time period (16 years) which does not allow the incorporation of long-term effects. For that reason, the paper can offer very limited recommendations for policy makers in the Balkan countries, namely reforms of legal system should focus on improvement of property rights protection.

As a possible extension, we propose both comparison with the other post-socialist economies, which enables to generalise results in the context of transition economies, and incorporation of the other concepts representing quality of formal institutions. Also focusing on firm level seems to be promising for future research.

6   ACKNOWLEDGEMENTS

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