

The Importance of Institutional Quality for Economic Performance in Post-Soviet States

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Abstract: *The new institutional economics explains the differences between poor and wealthy countries with institutions. Institutional quality creates the right conditions for long-term economic growth and higher economic performance. The purpose of this paper is to verify this assumption on a sample of post-soviet countries. Institutional quality is represented here by the concept of quality of governance according to the World Bank methodology, which allows a comprehensive assessment of the institutional environment. The results of panel regression with fixed effects confirm the theoretical assumption. Furthermore, they indicate the importance of political stability, government efficiency, the rule of law and the control of corruption.*

Key words: Formal Institutions · Economic Performance · Post-Soviet Countries · Panel Analysis

JEL Classification: O43 · P48

1 Introduction

25 years since the break-up of the USSR is a time long enough to carry out a successful transformation from a centrally planned economy into a market economy. However, the transformation process has only reached its end in the Baltic countries, while the remaining countries are still among the developing countries. Democracy in Estonia, Lithuania and Latvia contrasts with the authoritarian regime in Azerbaijan, Belarus, Kazakhstan, Russia, Tajikistan, Turkmenistan and Uzbekistan and the hybrid regime³² Armenia, Kyrgyzstan and Ukraine. However, a stronger contrast can be seen in economic performance as the performance of the Baltic countries exceeds other countries, despite the absence of the natural resources the remaining post-soviet republics – apart from Moldova – have. Why have the Baltic countries "grown up" while the remaining countries are relatively in decline? The answer can be provided by the new institutional economics and its concepts of institutions.

North (1991), one of the leading representatives of the new institutional economics, defines institutions as "*humanly devised constraints that structure political, economic and social interactions*". They can be both formal (laws, property rights) and informal (customs, traditions), and this contribution focuses on the formal institutions. These can be further divided by different classification criteria, but Jütting's (2003) division into political, economic, legal and social institutions is the most important. On the grounds of their character we will abstract from legal and social institutions, and we will only focus on political and economic institutions as well the main topic literature. Political institutions provide information about the political stability, the political system and the elections, while economic institutions define, in particular, property rights, their enforcement and rules defining the production and distribution of goods and services. Given the above, it is clear that institutions are changing and evolving over time.

The executive power of the state (government) is one of the representatives of formal institutions – it affects our daily interactions. Its quality through specific channels is an important factor in building a growing economy. The purpose of this paper is to empirically test the quality of the institutional environment as a determinant of economic performance in post-soviet countries between 1996 and 2014. Institutional quality is represented here by the concept of quality of governance according to the World Bank methodology, which allows a comprehensive assessment of the institutional environment (World Bank, 2017b).

The importance of institutional quality for long-term economic growth and higher economic performance is demonstrated by well-known contributions, e.g. Acemoglu et al. (2005), Aron (2000), Knack and Keefer (1995); from most recent, for example, the contributions of Ahmad and Marwan (2012), Nawaz (2015) and Spreafico (2010).

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³² Hybrid regime combines democratic and autocratic elements; it is typically a combination of free market and autocratic leader. For more information about hybrid regimes in post-soviet countries see Hale (2006) and Libman (2012).

Acemoglu et al. (2005) call institutions (especially the economic one) the fundamental factor of the economic growth. Together with them, the authors also emphasize the geographical location. These two factors answer the question of the differences of prosperity between different countries. The most important of economic institutions, as Knack and Keefer (1995) said, is the protection of property rights. Spreafico (2010) broadly defined the relationship between institutions and growth and her contribution corresponds to the title of "What do we know about the link between growth and institutions?". She says, above all, that economic performance is not just an institution. Institutions, politics and market – this combination is a determinant of performance. These factors affect each other: good institutions (not only through politics) positively influence the market and lead to growth, while growth leads back to better institutions through the market. Aron (2000) pointed out this both-sided causality.

The quality of institutions affects economic growth particularly indirectly through the investment channel (Aron, 2000), the productivity channel (Ahmad and Marwan, 2012), the accumulation of human capital (Svensson, 1998) or the reduction of transaction costs (Pitlik and Kouba, 2013).

Let us add that it is not possible to give a universal recipe for the optimal composition of institutions. Nawaz (2015) pointed out that each country needs its own set of appropriate institutions – it depends not only on the assumptions of the home environment but also on the stage of the country's development.

2 Methods

Data for the empirical model are from the World Bank (World Bank, 2017a, World Bank, 2017b). The empirical model covers the years 1996, 1998, 2000, 2002–2014. Until 2002, data on the governance quality was published every two years. The concept for measuring the governance quality is called Governance Matters. The governance matters (gm) consists of six subindexes gm1-gm6 that get values from -2.5 to 2.5; the higher the number, the higher the quality of the index. Below is a brief description of the subindexes by its creators, Kaufmann et al. (2011):

- gm1 (Voice and accountability) = “*capturing perceptions of the extent to which a country’s citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media*”;
- gm2 (Political stability) = “*capturing perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism*”;
- gm3 (Government effectiveness) = “*capturing perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government’s commitment to such policies*”;
- gm4 (Regulatory quality) = “*capturing perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development*”;
- gm5 (Rule of law) = “*capturing 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*”;
- gm6 (Control of corruption) = “*capturing perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as capture of the state by elites and private interests*”;
- gm = arithmetic mean of subindexes gm1 – gm6

Given the literature review, we expect positive effects of institutional variables on economic performance. The exception is the variable gm1 (voice and accountability) whose relation to the dependent variable is not theoretically clearly defined.³³

A frequent problem in the econometric modeling with economic variables is the presence of endogeneity, in which an uncontrolled factor is present, which affects both the dependent and the explanatory variables. It is not possible to capture the direction of causality correctly. For better endogeneity control, it would be more appropriate to use dynamic panel analysis (e.g. GMM), but due to the low number of observations, the results would be probably distorted (Kim, 2010).

For (at least partial) elimination of endogeneity in the models control variables are engaged, inspired by Berggren et al. (2013). These include: openness ("open", expected impact +), total government expenditure ("gov", expected impact –) and government expenditure on education ("educgdp", expected impact +/-). These variables are

³³ Voice and accountability can be considered, according to its definition, as the degree of democracy. For more information about ambiguous relation see Spreafico (2010).

complemented by one more – total expenditure on research and development ("rad", expected impact +) (Aisen and Veiga, 2013). All control variables are expressed as % of GDP.

The dependent variable which represents economic performance is GDP per capita in USD (at constant prices in 2010; "gdppercapita", (e.g. Nawaz, 2015)) and the explanatory is always a set of control variables and one variable representing a part of the governance quality (indicators gm and gm1 – gm6). In total, seven models are created.

We use static panel analysis for estimation, specifically a fixed effect method, which can well drain unobserved heterogeneity and significantly precise the results against classical linear regression with OLS. Fixed effect method is the most commonly used static panel method, see, for example, Ahmad and Marwan (2012), Jong-A-Pin (2009) and Nawaz (2015). Empirical model with fixed effects can be summarized as follows:

$$y_{it} = \alpha_i^* + \beta' x_{it} + u_{it}; i = 1, 2, \dots, N, t = 1, 2, \dots, T. \quad (1)$$

where:

y_{it} is the GDP per capita in USD (at constant prices in 2010)

α_i^* is the constant which represent individual component for i observation

β' is a vector of control and institutional variables

u_{it} is the error term

Given the higher number of missing data, this is an unbalanced panel. Let us add that the results are estimated with robust standard errors that are resistant to the presence of heteroscedasticity and autocorrelation.

3 Research results

Beta coefficients of institutional variables have a positive sign in line with expectations. We remind that the relationship between the degree of democracy and economic growth and performance is not clearly defined.

Among the individual subindexes, gm2 variable (political stability) is significant at a one percent level of significance, gm3 (government efficiency) at a five percent level of significance, gm5 (rule of law) at a one percent level of significance and gm6 (control of corruption) at a five percent significance level. What is most important, however, is that the gm variable, which is capable of assessing the quality of the institutional environment comprehensively, is significant at a one percent level of significance. Thus, the theoretical assumptions are confirmed.

As far as control variables are concerned, they are significant almost across all models apart from openness, and their direction does not deviate from theoretical assumptions.³⁴ The negative impact of government expenditure on education is related to the "return on investment in education"; with a long delay, a positive effect occurs, see Sylwester (2000) and Chandra (2010).

It follows from the above that the models succeeded in estimating well – despite data file reduction caused by the missing data for control variables. This is confirmed by the coefficient of determination, which is around 74–80 % for all estimated models. The panel analysis results are shown in Table 1 below.

Table 1 The results of panel regression

gdppercapita	gm1	gm2	gm3	gm4	gm5	gm6	gm
open	-2.442314	-1.803746	-1.409861	-2.072019	-0.4601419	-2.774744	-0.6829536
	6.882212	6.318715	5.959711	6.446312	5.850371	5.791395	5.4425
gov	-118.9452*	-119.8829*	-115.1598**	-121.955*	-103.2343	-104.4254	-114.1934*
	61.48623	57.20567	48.92267	61.37242	58.6866	58.86109	56.77731
rad	2283.774**	2266.86**	1923.22**	2232.909**	1521.625*	1710.921**	1853.687**
	919.752	883.9351	834.0083	888.8303	852.1313	745.78	764.9082
educgdp	-387.5868*	-433.1014**	-430.5419**	-428.8232**	-319.2419*	-427.8303**	-423.405 **
	188.7875	181.2053	156.473	164.8333	164.095	152.1305	150.4029
gm1	-943.4885						

³⁴ Same result as Aisen and Veiga (2013).

	688.2515						
gm2		753.783***					
		193.8168					
gm3			1867.886**				
			654.5136				
gm4				1006.409			
				655.5722			
gm5					2774.567***		
					899.2544		
gm6						2034.978**	
						709.4473	
gm							3183.822 ***
							847.3767
n	158	158	158	158	158	158	158
R2 (within)	0,746	0,755	0,766	0,747	0,792	0,776	0,777

Note: beta/standard robust errors

*, ** and *** indicate significance at the 10, 5, and 1 percent levels, respectively.

Constant is not included.

4 Conclusions

This paper focused on exploring the relation between formal institutions – represented by the quality of governance according to the World Bank methodology – and economic performance in post-soviet countries. The panel data analysis, namely the fixed effect method, was used to evaluate the relationship. The results confirm the theoretical assumption under which institutions matter and their quality is the determinant of economic growth and economic performance. The significance of partial subindexes implies that we should focus on them for improving the institutional environment.

Significant political stability shows that it is important not only to focus on institutional quality, but also on its stability (not only political, see Berggren et al., 2013). The negative (albeit insignificant) effect of democracy means that political stability plays a more important role than the type of political regime, which confirms and refines the results of the contribution of Náplava and Kouba (2017) thanks to better methods. Political stability stems from the authoritative nature of the regimes. Until a series of three colour revolutions, the regimes remain more or less untouched, totally "deadly" stable and static. More about the issues of political (in)stability is provided by Jong-A-Pin (2009) and Aisen and Veiga (2013).

The government effectiveness (gm3) is very closely related to control of corruption (gm6). The government effectiveness includes the perception of the credibility that corruption reduces. Knack and Keefer (1995) talk about trust, or about the distrust of entrepreneurial subjects against the government. Their distrust is negatively reflected in growth and performance.

Corruption is typical in post-soviet countries except the Baltic countries. There is no socially most productive use in corruption. According to Transparency International, the average of twelve post-soviet countries is 31, while Baltic 62 (Index vnímání korupce, 2016).³⁵ Ethiopia or Kosovo have a better score. It is clear that the struggle against corruption there is very important; according to the regression results, this growth of anti-corruption measures would be beneficial for better performance.

The rule of law (gm5) includes enforcement of property rights particularly. Their definition and enforcement are often referred to as the prime condition for long-term growth (Acemoglu et al., 2005; Knack and Keefer, 1995; Spreafico, 2010) or their security and enforcement are referred to as the basic function of the government (North, 1991).

When considering post-soviet countries, it is necessary to separate the developed Baltic countries and the developing other twelve countries. Despite the very similar initial conditions (the differences were mainly in economic structures), we can see gigantic differences between the richest Estonia and the poorest Tajikistan. It seems that the institutional concept may explain these differences. The average value of governance quality is 0.74 for Baltic countries, while for

³⁵ The corruption perception index get values of 0 to 100 within which the higher the number, the higher the quality of the index.

other twelve countries -0,68.³⁶ Nor the abundance of natural resources has been able to secure the prosperity for these countries. Baltic countries, poor in natural resources, have still better performance than the remaining countries, which are rich in natural resources. Zeynalov (2013) confirms that without a good institutional framework, abundance of natural resources will not lead to economic growth and better performance.

It seems that even if the USSR has already collapsed, its legacy in some of the countries under examination still survives. The current authoritarian leaders began to accumulate power before the collapse of the USSR. When the USSR collapsed, the people of the former regime emerged, who were no longer forced to answer Moscow's centralized powers, and who could begin building their own cult of personality defended by the authoritarian regime and the army. In fact, unlimited leaders live in the symbiosis with friendly oligarchs and this leads to the consolidation of power on both sides. Such a condition does not contribute to increasing institutional quality.

The disadvantage of working with many developing countries is the absence of key data. Unfortunately, this work also has a lot of missing data on the control variables side. The actual number of observations is only 158, while the maximum number of observations observed over a given period is 240. Despite the insufficient number of data, the results of this contribution cannot be dismissed; according to tests, the models are valid.

As far as research is concerned, Aron (2000) notes that not only inefficient institutions reflect growth, but also their stability. For this reason, it will be important for further research not only to address the quality of the political and institutional environment but also its stability.

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³⁶ The indicators get values from -2.5 to 2.5 within which the higher the number, the higher the quality of the index.

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