

PUBLIC GOVERNANCE AND ECONOMIC GROWTH IN THE TRANSITIONAL ECONOMIES OF THE EUROPEAN UNION

Yilmaz BAYAR

Yilmaz BAYAR

Associate Professor, Department of Economics,
Faculty of Economics and Administrative Sciences,
Usak University, Usak, Turkey
Tel.: 0090-276-221.2121
E-mail: yilmaz.bayar@usak.edu.tr

Abstract

According to new growth theories, public governance is an important determinant for sustained economic growth. This study examines the impact of six public governance indicators, including voice and accountability, political stability and the absence of violence/terrorism, government effectiveness, regulatory quality, rule of law and control of corruption, on the economic growth in the transitional economies of the European Union during the 2002-2013 period.

The results show that all governance indicators except regulatory quality had a statistically significant positive impact on economic growth. Our findings also indicate that control of corruption and rule of law had the largest impact on economic growth, while political stability had the lowest impact.

Keywords: public governance, economic growth, panel regression.



1. Introduction

Public governance is an essential determinant of long-run economic growth. Although consensus is lacking on the definition of governance, Kaufmann, Kraay and Mastruzzi (2010), considering various definitions, view governance as 'the traditions and institutions by which authority in a country is exercised'. Therefore, governance is defined as (i) the process of the selection, monitoring and replacement of governments; (ii) the power of the government to effectively establish and perform sound policies; and (iii) the respect of citizens and the state for the institutions that govern economic and social interactions among them (Kaufmann, Kraay and Mastruzzi, 2010, p. 3).

The impact of governance on economic growth was disregarded by neoclassical growth theory, but public governance became an important component of economic growth with the emergence of endogenous growth theories in the late 1980s. Countries' institutional structure has the potential to affect economic growth within the context of new growth theories because it is a determinant of both transaction costs and production costs (Aron, 2000, p. 104). Alternatively, the countries with higher levels of public governance will likely stimulate domestic private investments and foreign direct investments by reducing uncertainty, creating an investment environment for both domestic and foreign firms and positively contributing to economic growth.

We focus on the transitional economies of the European Union (EU), including Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia, because these countries experienced significant changes in public governance during the economic transformation, transiting from centrally planned economies to market economies as a result of the Communist Bloc's collapse in the late 1980s and the early 1990s, and pursued integration within the EU. The Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia became EU members in 2004, Romania and Bulgaria in 2007 and, finally, Croatia in 2012. These countries made the required reforms to meet the membership criteria during the EU integration process. The key criteria for accession to the EU, also called the Copenhagen criteria, consisted of stable institutions guaranteeing democracy, rule of law, human rights and respect for and protection of minorities, a functioning market economy, the capacity to cope with competition and market forces in the EU and the ability to take on and effectively implement the obligations of membership, including adherence to the aims of a political, economic and monetary union (European Commission, undated). Consequently, the transitional economies of the EU have come a long way in terms of good governance.

In this context, this study investigates the impact of improvements in the governance of EU transition economies on economic growth during the 2002-2013 period and is a pioneering study on the relationship between governance and economic growth for this group of countries. The rest of the study is structured as follows: the next section outlines the empirical literature on the nexus between public governance

and economic growth, section 3 introduces the data, econometric methodology and empirical analysis, and section 4 gives a conclusion and policy implications.

2. The relationship between governance and economic growth: literature review

The emergence of new endogenous growth theories has directed scholars to determine alternative sources of economic growth and differences among the countries' economic development levels. In this regard, the impact of public governance, in other words, the quality of public administration, on the economic growth has been investigated theoretically and empirically. Public governance has the potential to affect economic growth via many direct and indirect channels because it is the main determinant of the economic environment and institutions that have a significant impact on the decision-making process of key economic actors (Acemoglu, Johnson and Robinson, 2005) and that affect investments in both physical and human capital and technology, which are major drivers of economic growth. Furthermore, public governance may positively affect economic growth by contributing to the development of the financial sector, increasing foreign direct investment inflows and improving corporate governance, which positively impact economic growth.

Empirical studies have generally focused on the relationship between corporate governance, economic growth and firm performance (Morck, Wolfenzon and Yeung, 2005; Tiwari, 2010; Todorovic, 2013). However, relatively few studies have been conducted on the relationship between public governance and economic growth, or on the transition economies of the EU, and existing studies employ mostly panel regression analysis for econometric analysis. The majority of studies have benefited from the Worldwide Governance Indicators (WGI) of the World Bank in investigating the impact of public governance on economic growth and have generally concluded that public governance components positively impact economic growth (Kaufmann and Kraay, 2002; Badun, 2005; Beck and Laeven, 2006; Méndez-Picazo, Galindo-Martín and Ribeiro-Soriano, 2012; Bouoiyour and Naimbayel, 2012; Fayissa and Nsiah, 2013).

Badun (2005) investigated the impact of rule of law and public administration quality on economic growth in EU countries and candidate countries including Croatia, Bulgaria and Romania using panel regression, finding that both factors positively impact economic growth in transition economies. In contrast, Tridico (2006) examined the impact of governance on firm productivity in Poland and found that the firms located in a more healthily governed region experienced better performance. Beck and Laeven (2006) investigated the relationship between economic growth and institutional quality (proxied by WGI) in 24 transition economies during the 1992-2004 period by employing panel regression and found a strong positive relationship between economic growth and institutional development.

Cooray (2009) investigated the relationship between economic growth and the size and institutional quality of governments based on World Bank governance indicators in the context of a neoclassical model in 71 countries, including several EU transition economies during the 1996-2003 period and found that governance positively affected

economic growth. In contrast, Peev and Mueller (2012) investigated the relationship between economic growth, democracy and economic freedom by including indicators of public governance in a panel regression for 24 transition economies during the 1994-2007 period and found a positive relationship between economic growth and the quality of economic institutions. Finally, Petreski (2014) examined the impact of institutional quality on economic growth in 30 transition economies during the 2005-2011 period and found that regulatory environments with good governance had a positive impact on economic growth.

Beside these findings, many empirical studies have been conducted on the relationship between public governance and economic growth for countries in different income groups, excluding our sample countries. In a pioneering study, Kaufmann and Kraay (2002) investigated the impact of governance indicators on economic growth in 175 countries during the 2000-2001 period and found strong positive causality from governance to economic growth. On the other hand, Emara and Jhonsa (2014) investigated the impact of governance (proxied by Worldwide Governance Indicators) on economic growth in 197 countries for the year 2009 by using a two-stage least square regression and found bidirectional causality between governance and economic growth. These authors also examined the same relationship in 22 Middle Eastern and North African countries. Méndez-Picazo, Galindo-Martín and Ribeiro-Soriano (2012) examined the impact of governance on economic growth in 11 developed countries (Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Spain, Sweden, the United Kingdom and the United States) during the 2002-2007 period and found that governance positively impacted economic growth.

Furthermore, Bouoiyour and Naimbayel (2012) investigated the impact of governance (proxied by WGI) on economic growth in 27 countries in sub-Saharan Africa during the 2002-2009 period using panel regression and found that all governance indicators had a positive impact on economic growth. Fayissa and Nsiah (2013) examined the impact of governance (proxied by WGI) on economic growth in 39 countries in sub-Saharan Africa during the 1995-2004 period using panel regression, finding that the composite governance index had a positive impact on economic growth, while the impact of governance on economic growth changes depending on the income level. Zubair and Khan (2014) investigated the impact of governance (proxied by WGI) on economic growth in Pakistan during the 2002-2011 period using correlation and regression analysis and found a highly negative correlation between political instability and economic growth, a moderate negative correlation between control of corruption, rule of law and economic growth, and a positive correlation between voice and accountability and economic growth. Their regression results demonstrated that only political stability had a statistically significant negative impact on economic growth. Finally, Beleiu, Pop and Țâmpu (2015) examined the impact of governance (proxied by WGI) on economic growth in Romania during the 1996-2013 period by using correlation analysis and found a highly positive correlation both between rule of law and economic growth and between regulatory quality and economic growth.

3. Data, econometric methodology and empirical analysis

We investigated the impact of six governance indicators (voice and accountability, political stability and the absence of violence/terrorism, government effectiveness, regulatory quality, rule of law and control of corruption) on economic growth in the EU transitional economies during the 2002-2013 period. The countries and the data period in our study were determined by the availability of data.

3.1. Data

We used the annual data of real GDP per capita growth as a proxy for economic growth. Additionally, we used six Worldwide Governance indicators obtained from the World Bank (undated) as a proxy for governance: voice and accountability, political stability and the absence of violence/terrorism, government effectiveness, regulatory quality, rule of law and control of corruption. These governance indicators are based on 31 data sources reporting the perceptions of governance held by a large number of survey respondents and expert assessments worldwide (see Kaufmann, Kraay and Mastruzzi (2010) for detailed information). The indexes of each governance indicator vary between -2.5 (weak) and 2.5 (strong) governance performance (World Bank, 2015). The variables used in the econometric analysis, their symbols and data sources are briefly presented in Table 1.

Table 1: Variables used in the econometric analysis

Variables	Symbol	Source
Real GDP per capita growth (annual %)	PRGDPGR	IMF (2015)
Voice and accountability	VAA	World Bank (2015)
Political stability and absence of violence/terrorism	PS	
Government effectiveness	GE	
Regulatory quality	RQ	
Rule of law	ROL	
Control of corruption	COC	

We used Stata 14.0, WinRATS Pro. 8.0 and Gauss 11.0 software packages for the analysis. The descriptive statistics and correlation matrix of the variables in the study are presented in Table 2. The correlation matrix demonstrates that there are no multicollinearity problems among the independent variables.

Table 2: Descriptive statistics and the correlation matrix of the variables in the study

Statistics	PRGDPGR	VAA	PS	GE	RQ	ROL	COC
Mean	3.522265	0.817727	0.674394	0.624621	0.893939	0.537879	0.289621
Median	4.292346	0.900000	0.690000	0.710000	0.960000	0.635000	0.255000
Maximum	12.716140	1.160000	1.210000	1.190000	1.430000	1.160000	1.110000
Minimum	-14.565210	0.290000	-0.020000	-0.360000	-0.070000	-0.270000	-0.380000
Std. Dev.	4.940502	0.241827	0.300372	0.386530	0.308339	0.408895	0.367397
Skewness	-1.181108	-0.651043	-0.362046	-1.039625	-0.503010	-0.469236	0.391346
Kurtosis	5.247888	2.136996	2.218107	3.297344	2.997984	1.964473	2.428377

Correlation matrix	PRGDPGR	VAA	PS	GEE	RQ	ROL	COC
PRGDPGR	1.000000	0.067457	0.160121	0.001381	0.065967	0.057386	0.068467
VAA	0.067457	1.000000	0.115365	0.063505	0.300680	0.207609	0.092157
PS	0.160121	0.115365	1.000000	0.111380	0.125948	0.125630	0.125127
GE	0.001381	0.063505	0.111380	1.000000	0.224026	0.430277	0.273911
RQ	0.065967	0.300680	0.125948	0.224026	1.000000	0.426775	0.167683
ROL	0.057386	0.207609	0.125630	0.430277	0.426775	1.000000	0.381993
COC	0.068467	0.092157	0.125127	0.273911	0.167683	0.381993	1.000000

3.2. Econometric methodology and empirical analysis

We investigated how the public governance indicators affect economic growth in the 11 transitional economies of the EU during the 2002-2013 period. Our dependent variable is real GDP per capita, while our independent variables are indicators of public governance. Therefore, we consider the following model:

$$PRGDPGR_{it} = \alpha_i + \beta_1 VAA_{it} + \beta_2 PS_{it} + \beta_3 GE_{it} + \beta_4 RQ_{it} + \beta_5 ROL_{it} + \beta_6 COC_{it} + \varepsilon_{it} \quad (1)$$

First, we should test whether the panel regression model is homogenous, in accordance with Pesaran and Yamagata (2008), because the estimation method differs depending on the homogenous or heterogeneous panel model. Then, we apply Pesaran's (2004) CD_{LM2} (Cross-sectional Dependence Lagrangian Multiplier) to determine first- and second-generation panel unit root tests, as the variables used in the panel data analysis should be stationary to avoid causing possible spurious relationships among the variables (Gujarati and Porter, 2009, pp. 747-748).

Later, we benefit from Chow (F) and BP (χ^2) to test to select the estimation method of the panel regression. Finally, we test the serial correlation problem using Wooldridge's (2002) autocorrelation test and test the heteroskedasticity problem using Greene's (2003) heteroskedasticity test after estimating the panel regression.

3.2.1. Slope homogeneity test

Swamy (1970) first developed the slope homogeneity test of whether the slope coefficients of the cointegrating equation, which belongs to the cross-sectional units of the panel, are homogeneous, and Pesaran and Yamata (2008) later improved the Swamy test. The null hypothesis is that the slope coefficients are homogenous. Pesaran and Yamagata (2008) developed two different test statistics in order to test the hypotheses. The test statistics are as follows (Pesaran and Yamagata (2008):

$$\tilde{\Delta} = \sqrt{N} \left(\frac{N^{-1}\bar{S} - k}{2k} \right) \sim \chi_k^2 \text{ (for large samples) } \quad (2), \text{ and}$$

$$\tilde{\Delta}_{adj} = \sqrt{N} \left(\frac{N^{-1}\bar{S} - k}{v(T, k)} \right) \sim N(0,1) \text{ (for small samples) } \quad (3)$$

In the aforementioned equations N denotes the number of cross-sectional units, S denotes the Swamy test statistic, k denotes the number of independent variables, and

$v(T,k)$ denotes the standard error. If the p value of the test is larger than 5%, the null hypothesis is accepted at a 5% significance level and the cointegrating coefficients are considered homogenous (Pesaran and Yamagata, 2008).

The results of our application of Pesaran and Yamagata's (2008) homogeneity test are presented in Table 3. The null hypothesis is rejected because the probability values are smaller than 0.05. Therefore, the slope coefficients are not homogenous.

Table 3: Results of Pesaran and Yamagata's (2008) homogeneity test

	Test statistics	p value
$\tilde{\Delta}$	5.341	0.024*
$\tilde{\Delta}_{adj}$	7.889	0.001*

* significant at 5%

3.2.2. Cross-sectional dependence test

The existence of cross-sectional dependence among the series affects the results of other tests in the analysis (Breusch and Pagan, 1980). Therefore, we test the existence of cross-sectional dependence in the panel data. If the time dimension (T) is larger than the cross-sectional dimension (N), Breusch and Pagan's (1980) CD_{LM1} test is used, while if T equals N, Pesaran's (2004) CD_{LM2} test is preferred. Finally, if T is smaller than N, Pesaran's (2004) CD_{LM} test is used.

The original form of LM statistics is as follows (Breusch and Pagan, 1980):

$$LM = T \sum_{i=1}^{N-1} \sum_{j=i+1}^N (\hat{\rho}_{ij}^2) \sim \chi_{N(N-1)}^2 \quad (4)$$

Then, Pesaran (2004) proposed the following CD statistics:

$$CD = \sqrt{\frac{2T}{N(N-1)}} \left(\sum_{i=1}^{N-1} \sum_{j=i+1}^N \hat{\rho}_{ij} \right) \quad (5)$$

We use Pesaran's (2004) CD_{LM2} test because T and N equal 11; the results of the test (t statistics) are presented in Table 4. The null hypothesis (cross-sectional independence) is rejected at 5% significance because the probability values are smaller than 0.05. Therefore, there is cross-sectional dependence among the series in the study.

Table 4: Results of the test

Test	PRGDGR	VAA	PS	GE	RQ	ROL	COC
CD_{LM2}	6.008*	4.980*	7.556*	8.352*	5.921*	8.563*	9.563*

* significant at 5%

3.2.3. Panel unit root test

The first-generation panel unit root tests assume that the cross-sectional units of the panel are independent from each other, while the second-generation panel unit root tests assume cross-sectional dependence among the cross-sectional units of the

panel (Hurling and Mignon, 2006). We use the CADF (Cross-sectional Augmented Dickey Fuller) test developed by Pesaran (2007), which considers cross-sectional dependence, because we found cross-sectional dependence among the series. The cross-sectional averages of lagged levels and first differences of the series are used to improve the Augmented Dickey Fuller (ADF) regression in this test; then, the cross-sectional IPS (CIPS) (Im, Pesaran and Shin, 2003) statistic is calculated using the individual CADF statistics. The CADF equation is as follows (Pesaran, 2007):

$$\Delta y_{it} = \alpha_{0i} + \alpha_{1i}y_{i,t-1} + \alpha_{2i}\bar{y}_{t-1} + \alpha_{3i}\Delta\bar{y}_{t-1} + \varepsilon_{it} \quad (6)$$

$$\text{In (3), numbered equation } \bar{y}_t = \frac{\sum_{i=1}^n y_{it}}{n}, \Delta\bar{y}_t = \frac{\sum_{i=1}^n \Delta y_{it}}{n},$$

The panel version is developed by a cross-sectional extension of the IPS. CIPS statistics are the average of all the calculated t values for each cross-sectional unit.

$$CIPS = \frac{\sum_{i=1}^N CADF_i}{N} \quad (7)$$

We test the stationarity of the panel data by CIPS; the results are presented in Table 5. The findings indicate that all variables were not stationary. Therefore, we conduct the panel regression with first differences of the variables.

Table 5: Results of CIPS test

Test	PRGDGR	VAA	PS	GE	RQ	ROL	COC
CIPS	7.431*	6.055*	7.542*	9.886*	5.803*	9.372*	9.771*

* significant at 5%

3.2.4. Model selection

We conduct several econometric tests to determine which estimation method to use in the panel data analysis. One is the Chow test, which is used to determine the common significance of country- and time-specific effects among the panel data. The null hypothesis shows that pooled OLS is effective, while an alternative hypothesis shows that the fixed effects model (FEM) is effective given the Chow test. The Breusch Pagan (BP) test is used to determine whether to use pooled OLS or the random effects model (REM), and the null hypothesis shows that pooled OLS is effective, while an alternative hypothesis shows that REM is effective under the BP test.

We conducted Chow and BP tests, and the results are presented in Table 6. The Chow test indicates the use of FEM model, while the BP test dictates the use of REM.

Table 6: Results of the estimation method test of panel regression

Test	p value	Decision
Chow (F) test	0.023	Accept H_1
BP (χ^2) test	0.001	Accept H_1

Finally, the Hausman test is used to choose between FEM and REM. The null hypothesis asserts that REM is efficient, while the alternative hypothesis shows that

FEM is effective. We apply the Hausman test, and the results are presented in Table 7. Given the results of the Hausman test, we use the REM model.

Table 7: Results of the Hausman test

Test summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	673.215	6	0.224
Period random	587.092	6	0.197
Cross-section and period random	612.438	6	0.182

3.2.5. Results of the panel regression

Different algorithms are applied for the analysis, and we conduct the estimation with the cross-section SUR algorithm, which yields the minimum sum of the squared errors; the estimation results are presented in Table 8. The results indicate that all variables except regulatory quality (RQ) had a statistically significant positive impact on economic growth, and the independent variables of the study explain 65% of the changes in economic growth. The coefficients show that the control of corruption (COC) and rule of law (ROL) variables had the largest impact on economic growth, while the political stability and the absence of violence/terrorism (PS) variable had the lowest impact. Our findings are consistent with those of empirical studies in the literature.

Table 8: Results of the panel regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DGDP	0.221624	0.043829	5.056573	0.0000
DVAA	0.209122	0.048056	4.351657	0.0000
DPS	0.121965	0.034558	3.529228	0.0006
DGE	0.229739	0.061960	3.707850	0.0003
DRQ	0.004985	0.051845	0.096158	0.9235
DROL	0.289271	0.050073	5.776993	0.0000
DCOC	0.328844	0.034985	9.399515	0.0000
C	0.446568	0.059954	7.448541	0.0000
Effect Specification				
			S.D.	Rho
Cross-section random			0.08263	0.6909
Period random			0.00500	0.0000
Idiosyncratic random			0.05520	0.3091
Weighted Statistics				
R-squared	0.658659	Mean dependent var.		0.155016
Adjusted R-squared	0.638459	S.D. dependent var.		0.083946
S.E. of regression	0.068278	Sum squared resid.		0.592059
F-statistic	37.75565	Durbin-Watson stat		2.166197
Prob. (F-statistic)	0.000000			
Unweighted Statistics				
R-squared	0.341341	Mean dependent var.		0.81235
Sum squared resid.	2.007654	Durbin-Watson stat		2.1540

Control of corruption had the largest impact on the EU transition economies' economic growth, while theoretical debates and empirical findings on the impact of corruption on economic performance are uncertain. However, most empirical studies have found a negative impact of corruption on economic growth (Mauro, 1995; Akcay, 2002; Guetat, 2006; Gyimah-Brempong and Camacho, 2006), while relatively few studies have found a positive impact (Houston, 2007). The negative impact of corruption may indicate that it negatively affected the major determinants of economic growth, such as the effectiveness of the public sector, domestic and international investments and taxation (Chêne, 2014), and our findings verify this theoretical proposition. Rule of law had the second-largest impact on the economic performance of our sample countries. Rule of law affects economic growth theoretically through violence mitigation, protection of property rights, control of governments and the reduction of the biases that harm public policy (Haggard and Tiede, 2011), and our findings support this theoretical proposition.

Government effectiveness reflects the quality of public services, governmental decision-making and civil servants. Therefore, countries with higher government effectiveness are expected to have better economic performance because government effectiveness is a determinant of factors such as credit ratings, domestic and foreign direct investments, human capital accumulation, and technological investment, and because governments themselves are the largest participants in these economies. In our study, government effectiveness had a positive impact on economic growth, verifying these theoretical considerations.

Finally, voice and accountability and political stability (including the absence of violence and terrorism) had a positive impact on the EU transition economies' economic growth. When a country's citizens believe that their preferences are properly reflected in governmental institutions and that they receive sufficient public goods, their sense of belonging increases and, in turn, their willingness to contribute to their country increases. Additionally, freedom of expression, freedom of association, and a free media contribute to economic growth by affecting the proper functioning of public administration. Finally, political stability, which is the constancy of governments and/or regimes, may be distorted by various events, such as coups and frequent government or cabinet changes, and, in turn, cause frequent changes in economic policies. Political instability raises uncertainty in economic decisions regarding such factors as investment, production or labor supply and negatively affects economic growth (Alesina *et al.*, 1996). Therefore, political stability is an important component of economic growth.

3.2.6. Results of panel regression assumption tests

We test for autocorrelation and heteroskedasticity problems, which are major assumptions behind the regression for the reliability of our findings. First, we test for autocorrelation problems using Wooldridge's (2002) autocorrelation test, and the results are presented in Table 9. Given the findings of the test, there is no autocorrelation problem in our model.

Table 9: Results of the Woolridge autocorrelation test

F value	p
783.081	0.1735

We test for heteroskedasticity problems using the test developed by Greene (2003), and the results are presented in Table 10. The null hypothesis (no heteroskedasticity) is accepted.

Table 10: Results of the Greene heteroskedasticity test

chi2 (2) = 644.741
Prob.>chi2 = 0.1562

4. Conclusion

The EU transition economies have experienced a long and difficult process of transforming from centrally planned economies to market economies. These countries implemented substantial economic and political reforms to overcome economic underdevelopment and to meet the requirements for EU membership during this transformation process. Consequently, the EU transition economies have come a long way in terms of good public governance by implementing structural reforms including reforms on the governance of public and private sectors beginning in the early 1990s. These reforms changed the role of the public sector in the economy, strengthened government accounting, tax administration and legal infrastructure, increased the fiscal transparency of the public sector, and encouraged the proper functioning of governmental institutions. Our study sought to investigate the impact of substantial structural changes in public administration in the EU transition economies on economic performance by using econometric analysis.

In this study, we conducted an empirical analysis on the relationship between public governance and economic growth in the EU transition economies, and our findings demonstrated that all public governance indicators except regulatory quality had a statistically positive impact on this economic growth. Additionally, indicators for control of corruption and rule of law had the highest impact on economic growth, while political stability had the lowest impact. All public governance indicators explained 65% of the changes in economic growth.

Our findings verify that public governance, in other words, the quality of public administration, affects economic growth directly and indirectly through many channels. First, new endogenous growth theories suggest that human capital, technological progress and social infrastructure are the main drivers of economic growth. In this regard, education, health and science and technology policies implemented by public sector have a significant influence on the major drivers of economic growth. Therefore, public sectors with better governance use their resources more effectively and, in turn, contribute to the process of economic growth.

Second, the public sector is a main determinant of national income with government expenditures, therefore, countries with better public governance use public ex-

penditures more effectively, which positively affects economic growth. On the one hand, the public sector designs and regulates the investment climate, which has a significant impact on investment decisions by both domestic and foreign firms; on the other hand, the public sector establishes regulations and enforces the rules to make markets function more efficiently. Therefore, a highly credible public sector will encourage firms to make more investments, which foster economic growth.

Countries obtain higher ratings when they have good public administration and higher credit ratings also have a positive impact on economic growth, indirectly, by reducing the cost of capital. Better governance also has the potential to positively affect economic growth by contributing to the development of domestic financial sectors and attracting more foreign direct investment inflows. Finally, better public administration contributes to corporate governance and, in turn, feeds economic growth by increasing firm performance.

Our findings and the literature suggest that good governance is a main determinant of sustainable economic growth and affects economic growth through many direct and indirect channels. Therefore, the measures taken to improve the quality of public administration have the potential to affect economic growth, thus underdeveloped and developing countries should first improve their public administration in order to achieve sustainable economic growth. Further empirical studies should determine the exact channels through which public governance affects economic growth, which will be useful for policymakers in increasing the impact of public governance components on economic growth.

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