Democracy and Economic Growth in Post-Communist Transition Countries

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1. Introduction

Does a particular political regime promote economic growth? This is a longstanding question if either democracy or authoritarianism provides a more amicable environment for economic growth. That is because economic institutions, determined by political power of society, provide incentives for economic actors who invest in physical and human capital. Traditionally, democracy has been believed to be an essential prerequisite for long-run economic growth. Ardent advocates of democracy insist that work motivation, self improvement, efficient allocation of resources, and profit-maximizing activities all can be maintained only in the presence of liberty, free-flowing information, secured property rights and contract enforcement in the long term. On the other hands, economic institutions of the authoritarian state are more likely to introduce the top-down process, which creates unfavorable condition for credible commitment to investors that has a negative impact on economic growth.

However, researchers have still failed to reach consensus on how democracy influences economic growth. On the contrary, some empirical researches using historical data for last fifty years have illustrated that

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economic growth is negatively[1] related to democracy, or independent on it.[2] Other researches argue that the relationship between democracy and economic growth is likely to be nonlinear.[3]

Meanwhile, historical researches on the relationship between economic growth and authoritarian regimes in the East Asian Tiger states, Pinochet's Chile, and present-day China show that economic growth continued under the authoritarian governments. These cases raised a question on the traditional beliefs that democracy is the best way to achieve economic growth.

Central and Eastern European and CIS countries have employed market economy and democratic system as a reform program, after they were derailed from the Soviet regime. Democracy has been advanced in these countries, while most of them have experienced some recessions from time to time. Also, due to the relatively short history of democracy, both political regimes and economic growth are significantly diverse across Post-Communist transition countries. This diversity makes Post-communist countries be an experimental space for analyzing relationship between political regimes and economic growth.

In this regard, this study aims to clarify the correlation between democracy and economic growth in 27 post-communist countries of Central and Eastern Europe and CIS by using the panel data analysis. According to this research design, we attempt to show whether the democracy outperforms authoritarian regimes in terms of economic growth.

The plan of this paper is as follows. Section II reviews the literature on the relationship between democracy and economic growth, especially in transition economies. Section III reports the data used in the paper and

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1) L. Sirowy and A. Inkeles(1990) "The Effects of Democracy on Economic Growth and Income Inequality: A Review," *Studies in Comparative International Development,* 25, pp. 126–157.

2) G. Tsebelis(2002) *Veto Players: How Political Institutions Work,* Princeton: Princeton University Press, p. 70.

3) R. Barro(1990) "Government Spending in a Simple Model of Endogenous Growth," *Journal of Political Economy,* 98(5), pp. S103-126.

presents the methodology used. Empirical results and findings are discussed in Section IV and the last section concludes the paper.

2. Literature Review

Why do some countries succeed to be democratized? Structuralist perspectives have emphasized the societal precondition for democracy. Economic development increases the demands for participation that lead to democracy, that is, a situation of relative political equality.[4] Sustained economic growth has been regarded as a democratic stimulus,[5] while economic wealth could be a main engine for maintaining the current regime whether democratic and authoritarian.[6] Olson argued:

> "In an autocracy, the source of order and other public goods and likewise the source of the social progress that these public goods make possible is the encompassing interest of the autocrat. The main obstacle to long-run progress in autocracies is that individual rights even to such relatively unpolitical or economic matters as property and contracts can never be secure, at least over the long run. … On the other hand, democracies have the great advantage of preventing significant extraction of social surplus by their leaders. They also have the extraordinary virtue that the same emphasis on individual rights that is necessary to lasting democracy is also necessary for secure rights to both property and the enforcement of contracts. The moral appeal of democracy is now almost universally appreciated, but its economic advantages are scarcely understood."[7]

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4) S. Haggard and R. R. Kaufman(1995) *The Political Economy of Democratic Transitions,* Princeton, NJ: Princeton University Press, Ch. 1, pp. 25-43.

5) S. P. Huntington(1991) *The Third Wave: Democratization in the Late Twentieth Century,* Norman: University of Oklahoma Press, pp. 59-69.

6) A. Prezeworski, M. Alvarez, J. Cheibub, and F. Limongi(2000) *Democracy and Development: Political Institutions and Wellbeing in the World,* New York: Cambridge University Press, Ch. 2, pp. 78-136.

7) M. Olson(1993) "Dictatorship, Democracy, and Development," *American Political*

Olson added that the effect of regime type on economic growth could be dependent on the duration and stability of political regime.[8)]

The classical study of Lipset finds positive relations between income per capita and democracy.[9)] Many other subsequent researches confirm Lipset's findings.[10)] An empirical study estimates that the probability of democratic movements, emerged in an authoritarian regimes increase, since income per capita increases up to a level of US$ 5,000.[11)] Levine & Renelt also argue that democracy is not a robust determinant of growth in cross-sectional regressions.[12)] Democracy could be vulnerable to populist demands for immediate consumption, unproductive subsidies, redistribution and short-term time horizon of both politicians and voters.[13)] Barro shows that democracy has a weakly negative effect on growth.[14)] In a comprehensive survey of this literature in economics, Brunetti concludes:

> "considering the evidence of this survey, it can be safely stated that there is no clear relationship between democracy, at least as measured in these studies, and economic growth."[15)]

Science Review, 87(3)(September), pp. 574-575.

8) M. Olson(1982) *The Rise and Decline of Nations,* New Haven: Yale University Press, p. 74.

9) S. M. Lipset(1959) "Some Social Requisites of Democracy: Economic Development and Political Legitimacy," *American Political Science Review*, 53(1)(March), pp. 69-105.

10) R. Barro(1999) "Determinants of Democracy," *Journal of Political Economy*, 107(6), pp. S158–183; D. Epstein, R. Bates, J. Goldstone, I. Kristensen, and S. O'Halloran(2006) "Democratic Transitions," *American Journal of Political Science*, 50, pp. 551-569.

11) J. A. Minier(2001) "Is Democracy a Normal Good? Evidence from Democratic Movements," *Southern Economic Journal*, 67(4), pp. 996-1008.

12) R. Levine, and D. Renelt(1992) "A Sensitivity Analysis of Cross-Country Growth Regressions," *American Economic Review*, 82, pp. 942-963.

13) S. Haggard, and R. R. Kaufman(1995), *The Political Economy of Democratic Transitions,* Princeton, NJ: Princeton University Press, pp. 8-11.

14) R. Barro(1996) "Democracy and Growth," *Journal of Economic Growth*, 1, pp. 1-27.

Besides, Przeworski et al. find that there is no real difference in growth between dictators and democrats.[16] Tavares & Wacziarg use a structural model to examine many channels through which democracy might influence growth, finding some negative effects and some positive but conclude that the "overall effect of democracy on economic growth is moderately negative."[17]

Questioning and focusing on the reasons of these different findings and contradictory results, the study of Krieckhuas concludes that relation between political regime and economic growth is varied according to the sample period. In detail, democracy affected negatively in economic growth in the 1960s while its effect on growth was positive in the 1980s. In addition, their relations were not relevant in 1970s and 1990s, respectively.[18] It could be caused by the fact that authoritarian as well as democratic societies create distortion.

Recent history of transition illustrates the importance of looking over correlations between democracy and growth as the significant variations in the rates of economic growth across the Post-Communist transition countries. For instance, Poland and Hungary have succeeded to liberalize political systems and develop their economies, while many CIS countries such as Belarus and Uzbekistan are still running under a kind of authoritarian regimes and a sharp decline of economic growth nearly for a decade since the transition began.[19] In general, growth performance is likely to be better if macroeconomic stabilization has achieved earliest and structural reforms have been progressed the most.[20] The initial conditions determine the average growth of transition

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15) A. Brunetti(1997) "Political Variables in Cross-Country Growth Analysis," *Journal of Economic Surveys*, 11, pp. 163-190.

16) Prezeworski et. al.(2000), p. 178.

17) J. Tavares and R. Wacziarg(2001) "How Democracy Affects Growth," *European Economic Review*, 45, pp. 1341-1378.

18) J. Krieckhaus(2004) "The Regime Debate Revisited: A Sensitivity Analysis of Democracy's Economic Effect," *British Journal of Political Science*, 34(4), p. 636.

19) V. Inozemtsev and P. Dutkiewicz(2013), *Democracy versus Modernization: A Dilemma for Russia and for the World*, Oxon: Routledge, p. 177.

economies by influencing the structural reforms. However, the initial conditions will weaken over time and structural reform and stabilization policy become more important than the initial conditions.[21] In addition, structural reform should be subjected to public support, which is crucial for economic growth in transition economies.[22] However, stabilization and structural reforms are not always closely related with democracy because some authoritarian regime can control stabilization and structural reforms easier than some democratic government.

Ironically, economic growth rate of most authoritarian state of CIS has recorded more than four percentage points higher than that of Central European countries since 2000.[23] In this regards, the successful economic performance are not only founded in democratic but also authoritarian societies. Fidrmuc finds that both economic liberalization and democracy have generally positive effects on growth by using EBRD Liberalization Index and democratic score of Freedom house. However, the effect of democracy on growth seems ambiguous when democracy is directly included in growth regressions.[24]

Using Heritage Foundation Economic Freedom Index and Freedom House Index of Democracy, Mueller and Peev suggest that democracy produces more rapid economic growth. However, they find that democracy also seems to be associated with slower growth.[25] Some previous studies argue an

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20) O. Havrylyshyn(2001) "Recovery and Growth in Transition Economies, *IMF Staff Paper*, 48, pp. 53-87.

21) E. Falcetti, M. Raiser, and P. Sanfey(2002) "Defying the Odds," *Journal of Comparative Economics*, 30(2), pp. 229-250.

22) B-Y. Kim and J. Pirttila(2006) "Political Constraints and Economic Reform: Empirical Evidence from the Post-Communist Transition in the 1990s," *Journal of Comparative Economics*, 34(3), pp. 446-466.

23) A. Aslund and N. Jenish(2006) "The Eurasian Growth Paradox," Institute of International Economies Working Paper Series, WP 06-5.

24) J. Fidrmuc(2003) "Economic Reform, Democracy and Growth during Post-Communist Transition," *European Journal of Political Economy,* 19, pp. 583-604.

25) D. Mueller and E. Peev(2009) "Democracy, Institutional Quality and Growth in

inverse U-shaped non-linearity between democracy and growth,[26] however, the effect is no longer significant when extending the data set in time.

3. Empirical Model and Measurement

3.1. Model

To analyze the effect of democracy on economic growth, we employ three models for empirical analysis: Generalized Least Squares (GLS) fixed effects and random effects regression, and Ordinary Least Squares (OLS) with Panel Corrected Standard Errors (PCSE).

To estimate the effect of democracy on economic growth, the following multi-regression model is used:

$$y = \beta 0 + \beta 1D + \beta 2X + \varepsilon$$

where y is an indicator of economic growth, D is the degree of democracy, X is a vector of control variables, and ε is a random disturbance.

An important characteristic of panel data is that we cannot assume that the observations are independently distributed across time. Therefore, these panel data enable us to control for unobserved heterogeneity such as cultural factors or difference in political practices across countries. In addition, panel data have been reduced the possible problem of collinearity among independent variables, and can be calculated more precise estimates due to the efficiency gain brought by more data.

The fixed effect model and the random model are variants of GLS.

Transition Economies," March 19, Unpublished manuscript.

26) Barro(1996), 1-27; T. Plumper and C. Martin(2003) "Democracy, Government Spending and Economic Growth," *Public Choice,* 117, pp. 27-50.

Fixed-effects model is designed to study the causes of changes within the country[27] and provides us analyzing the influence of democracy that change over time. As Stock and Watson put it:

> the key insight is that if the unobserved variable does not change over time, then any changes in the dependent variable must be due to influences other than these fixed characteristics.[28]

That is, fixed model assumes that a time-invariant characteristic cannot cause such a change, because it is constant for each country.

Unlike in the fixed effects model, the variation across countries is assumed to be random and uncorrelated with democracy in the random model. The difference between two models is that every other country in fixed effects model has its own intercept, while each intercept interpreted as the result of a random deviation from some mean intercept in the random effect model. Correlation between the unobserved effects and the explanatory variables have been assumed to be zero in random effects model. However, in many cases it would be non-zero. This implies inconsistency due to omitted variables in the random effect model. Fixed effect model is inefficient, but consistent. Thus we employ both of two models.

GLS fixed- and random-effects model, which incorporates information about the errors and thereby makes up for the inefficiency of OLS, is the best linear unbiased estimator and will give correct standard errors. However, GLS assumes that the variance-covariance matrix is known when in practice it is not.

Secondly, we applied PCSEs, which are commonly used when working with time-series, cross-sectional data, as proposed by Beck and Katz.[29]

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27) U. Kohler and F. Kreuter(2008) *Data Analysis Using Stata* (2nd ed.), College Station TX: Stata Press, p. 245.

28) J. H. Stock and M. W. Watson(2003) *Introduction to Econometrics,* Boston: Pearson Addison Wesley, pp. 289-290.

29) N. Beck and J. N. Katz(1995) "What To Do (and Not To Do) with Time-Series–Cross-Section Data in Comparative Politics," *American Political Science Review,* 89, pp. 634–647; N. Beck and J. N. Katz(1996) "Nuisance vs. Substance: Specifying

PCSEs are better because they take advantage of the information provided by the panel structure of the data and produce more reliable standard errors. A crucial assumption for the method of PCSEs is that the errors are free of serial correlation. PCSEs can make the researcher be more conservative about their inferences.

3.2. Measurement

Worldwide Governance Indicators(WGI), provided by the World Bank, are chosen for analysis of the effect of democracy on economic growth. The WGI defines governance as the set of traditions and institutions by which authority in a country is exercised. The political, economic, and institutional dimensions of governance are captured by six aggregate indicators: Voice and Accountability(VA), Political Stability and Absence of Violence/Terrorism(PV), Government Effectiveness(GE), Rule of Law(RL), Regulatory Quality(RQ), and Control of Corruption(CC).[30)]

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and Estimating Time-Series-Cross-Section Models," *Political Analysis,* 6, pp. 1-36.

30) The first 'Voice and Accountability(VA)' mean the 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. The second 'Political Stability and Absence of Violence/Terrorism(PV)' — capturing perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism. The first two criteria evaluate the process by which governments are selected, monitored, and replaced. The two criteria of the capacity of the government to effectively formulate and implement sound policies include 'Government Effectiveness(GE),' which measures 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. And 'Regulatory Quality(RQ)' indicates the extent of capturing perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. The last two dimensions provide the respect of citizens and the state for the institutions that

The WGI are based on 340 variables produced by 32 different sources, including commercial information providers, surveys of firms and households, non-governmental organizations and public sector organizations.[31] The WGI make it possible to evaluate the quality of a country's governance in comparison with other countries and over time.

We employ 'Voice and Accountability(VA)' among WGI as a proxy variable for democracy. Other indicators of WGI are institutional variables. WGI and GDP per capita provide information for Post-Communist countries over twelve years. The data cover the period from 1996 to 2010 except 1997, 1999, and 2001. Sample of the estimation, WGI and GDP per capita, consists of panel data which covers 27 transition countries among 29 EBRD's countries of operations, excluding Turkey, which was not a former communist country, and Montenegro, for which no stable data are available before 2006.

The WGI report on six dimensions of governance for over 200 countries in the period 1996 to 2010. The six aggregate indicators are reported in two ways: (1) in their standard normal units, ranging from approximately -2.5 to 2.5, and (2) in percentile rank terms from 0 to 100, with high values corresponding to better outcomes.[32] Table 1 shows the current political situation over 27 Post-Communist Transition countries, compared to other countries of the sample. Sample period for analysis is 1996, 1998, 2000,

govern economic and social interactions among them: 'Rule of Law (RL)' reports the degree of 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. In addition, 'Control of Corruption (CC)' shows the 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.

31) D. Kaufmann, A. Kraay, and M. Mastruzzi(2008) *Governance matters VII: Aggregate and individual governance indicators 1996-2007,* Washington DC: World Bank, pp. 8-11.

32) D. Kaufmann, A. Kraay, and M. Mastruzzi(2010) "The Worldwide Governance Indicators: Methodology and Analytical Issues," Policy Research Working Paper No. 5430. pp. 12-13.

2002, and from 2003 to 2010, that is all of twelve years of 27 countries of EBRD transition countries. All data are drawn from World Bank data set.

<Table 1> Worldwide Governance Indicators in 2010 in percentile rank terms

	VA	PV	GE	RQ	RL	CC
Albania	18.48	11.79	33.97	10.52	27.01	37.79
Armenia	26.06	47.16	49.76	58.37	39.81	30.62
Azerbaijan	12.32	33.96	22.00	36.84	21.80	9.09
Belarus	7.109	41.03	11.96	9.56	14.69	22.96
Bosnia-Herzegovina	45.49	25.00	27.27	50.71	44.07	47.84
Bulgaria	62.55	57.54	56.45	71.77	53.08	52.15
Croatia	60.66	66.98	70.33	70.33	60.66	59.33
Estonia	85.30	67.92	85.16	91.86	83.88	78.94
Georgia	42.65	24.52	64.11	70.81	48.81	54.06
Hungary	74.88	71.22	71.77	81.81	72.98	66.50
Kazakhstan	13.74	61.79	44.49	42.10	31.75	15.31
Kyrgyzstan	20.37	16.50	30.62	44.49	7.58	13.39
Latvia	71.56	62.73	72.24	80.38	73.93	63.15
Lithuania	74.40	68.86	74.16	79.90	72.03	66.02
Macedonia	52.60	29.24	48.32	59.33	46.91	56.45
Moldova	47.86	31.13	31.10	49.28	42.65	26.79
Mongolia	48.81	65.09	32.05	42.58	41.23	27.75
Poland	81.04	83.49	72.72	79.42	69.19	70.33
Romania	61.13	54.71	50.23	74.16	56.39	53.58
Russia	20.85	18.39	41.62	38.27	26.06	12.91
Serbia	56.39	31.60	51.19	52.63	43.12	51.67
Slovakia	72.98	85.84	77.03	81.33	66.35	64.59
Slovenia	78.19	75.47	81.33	74.64	82.46	75.59
Tajikistan	9.95	17.45	18.18	15.78	11.37	8.61
Turkmenistan	1.42	54.24	3.34	1.91	4.26	1.91
Ukraine	44.07	41.98	24.88	32.53	25.11	17.22
Uzbekistan	1.89	23.11	23.92	3.82	4.73	5.74

The data are all generated from the World Bank. Table 2 shows the summary statistics of variables in sample.

<Table 2> Summary of descriptive statistics

Variables	N	Mean	Standard Deviation	Minimum	Maximum
GDP per capita	324	2710.185	2654.335	122.0949	13836.19
VA	324	-0.1480394	0.9272282	-2.119608	1.32262
PV	324	-0.0698154	0.7471261	-2.138508	1.214081
GE	324	0.2274257	0.7052729	-1.631358	1.221572
RQ	324	-0.0787407	0.86928	-2.170484	1.466499
RL	324	-0.3524395	0.7320435	-1.643772	1.224188
CC	324	-0.4018897	0.6291796	-1.474328	1.31357

4. Findings

We tested panel data models, more specifically random effects models and fixed effects models. Table 3 presents the results from the estimation using a estimator, PCSE. It also includes the results from GLS random-effects and fixed effects regression. In its final analysis, OLS with PCSE is chosen to avoid overconfidence, which either panel-heteroscedasticity or contemporaneous correlation may cause.

<Table 3> Democracy and GDP per capita: Panel results

Independent Variables	Random effects	Fixed effects	OLS with PCSE
VA	-713.8405*** (203.2248)	-837.5205*** (212.2164)	-370.9442* (217.1544)
PV	245.7796* (148.1467)	254.0505* (148.8385)	120.2443 (165.7013)
GE	1123.483*** (285.3665)	1035.45*** (283.537)	3547.757*** (427.6648)
RQ	478.4302** (216.5917)	462.8488** (219.5434)	-1122.484*** (288.8995)
RL	573.8873* (301.4584)	530.27* (300.3318)	-840.7212* (469.8099)
CC	-61.85926 (251.4933)	-56.45013 (251.3386)	1935.258*** (417.1067)
Observation R-squared Wald Chi2 test (prob.)	324 0.4748 116.83 (0.0000)	324 0.4603 16.18 (F-test) (0.0000)	324 0.5712 742.23 (0.0000)

Notes. (i) Standard errors are presented in brackets.
(ii) The coefficients on the intercepts are not reported.
*Statistical significance at the 10%. **Idem., 5%, ***Idem., 1%.

Results of random and fixed effect model, even more unequivocally than the OLS with PCSE results, show a negative significant effect of democracy on growth. The random effect point estimates are larger than the OLS with PCSE point estimates, and, interestingly, institutional variables are related to economic growth. According to the random effect results, there is little reason to doubt that democracy, as measured by WGI, decreases economic growth rates. This could be indicated by different results from the previous empirical studies, in which democracy operated by Freedom House Index and EBRD

Liberalization Index, argues that democracy produces an increase in growth rates.[33] However, the assumptions underlying random effect are most likely not satisfied if the country specific effects are highly correlated with certain independent variables, thus random effects are not suitable for the analysis.

Instead of random effects, we use fixed effects. Fixed effect model introduces dummies for all of 27 countries, and thus only draws on within nation variation. Fixed effect model also has shown significant negative effects of democracy on growth. Often, fixed effects do not fit well with data for which within cluster variation is minimal or for slow changing variables over time. However, as well known, diversity of democracy and variety of economic performance are observed in Post-Communist transition.

Finally, as in the OLS with PCSE analysis, there is a quite significant negative effect of democracy on economic growth. Democracy probably does matter for bad economic outcomes in Post-Communist Transition. In this regard, we consider the argument of Gerring et al. who regard democracy as historically accumulated concept rather than a continuous concept.[34] This means a historical understanding of the correlation between democracy and economic growth. According to their proposition, the reason of the negative or no clear relationship between democracy and economic growth lies in that most of the studies have "usually focused on the possible causal effect of a country's contemporary level of democracy on its subsequent growth performance."[35]

They argue that democracy effects on economic growth performance relate to a country's regime history rather than its current regime status. This argument means that economic growth depends on not a country's level of democracy, but its accumulated stocks of democracy. What matters here in economic growth is "the accumulated effect of these historical legacies, in

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33) For instance, E. Peev and D. C. Mueller(2012) "Democracy, Economic Freedom and Growth in Transition Economies," *Kyklos*, 65(3), pp. 371-407.

34) J. Gerring, P. Bond, W. T. Barndt, and C. Moreno(2005) "Democracy and Economic Growth: A Historical Perspective," *World Politics*, 57(3), pp. 349-354.

35) J. Gerring, P. Bond, W. T. Barndt, and C. Moreno(2005), p. 324.

addition to contemporary regime status."[36]

Using long-term democracy level(1950-2000) and democracy stocks(1950-2000) as descriptive statistics, they analysed the relationship of democracy to economic growth. Their two conclusions have important implication for the research of the same subject in Post-Communist transition countries. "First, the relationship to growth is stronger when democracy is considered as a cumulative concept, rather than a continuous concept. … Second, … both the degree and the duration or democratic experience matter when one considers the effect of democracy on growth."[37]

Another possible explanation of above results has taken from the ideas of Acemoglu and his colleagues who argue against the validity of this basic empirical result.[38] They suggest that previous studies testing the relationship between development and democracy contain some fundamental flaws. In particular, they point out that existing studies, which are based on cross-country relationships, do not control for potential bias induced by omitted variables. They provide evidence for the importance of historic institutions for current economic development.

5. Conclusion

This article explores a persistent variation in the effect of democracy on economic growth in Post-Communist transition countries. By drawing extensive dataset and applying various statistical models, one salient feature of

36) J. Gerring, P. Bond, W. T. Barndt, and C. Moreno(2005), p. 324.

37) J. Gerring, P. Bond, W. T. Barndt, and C. Moreno(2005), p. 352.

38) D. Acemoglu, S. Johnson, J. A. Robinson, and P. Yared(2005) "From Education to Democracy?" *American Economic Association Papers and Proceedings*, 95(2), pp. 44-49; D. Acemoglu, S. Johnson, J. A. Robinson, and P. Yared(2008) "Income and Democracy," *American Economic Review*, 98(3), pp. 808-842; D. Acemoglu, S. Johnson, J. A. Robinson, and P. Yared(2009) "Reevaluating the Modernization Hypothesis," *Journal of Monetary Economics,* 56(8), pp. 1043-1058.

the results from this econometric test is that democracy does not increase GDP per capita. Conclusively, no significant relationship between economic growth and democracy has been found in the Post-Communist countries.

These findings and interpretations could be inevitably restricted and preliminary due to the relatively short period of transition about 20 years. Moreover, this paper uses only institution-related variables to determine income per capita. This methodology could lead to omitted variable bias. In addition, we assume that democracy affects income per capita not vice versa. In detail, some countries like Poland or Czechoslovakia began macroeconomic stabilization and structural reforms earlier, while in other — mostly CIS including Russia — later. In this regard, timing could influence the nature of transitional reform process and to some extent late abandonment of socialist system made it more painful. Besides, the length of period during which a particular country was brought under socialism should be taken into consideration since some countries have a comparatively short experience with communism (beginning from the after World War II and ending in the end of 1970-'s or early 1980's). All the post-communist countries are regarded as a more or less homogeneous pool which they are basically not.

In spite of these kinds of weakness, the results of our analysis are partially connected with the assumption that democracy without institutional reforms does not produce good economic performance. Despite shortcomings, the research is timely and appropriate in that twenty years have passed since post-communist transition started, and regime types in each country have been consolidated toward each democracy or authoritarianism. Also, international communities, headed by countries with liberal democracy, may find a preliminary but empirical basis from our findings in order to continue and strengthen their development assistance in institutional reforms and economic cooperation for transition countries to advance democracy on their own. Finally, no matter what political regime, institutions and the capacities of a political system are more relevant for economic growth because these factors enable to identify problems and opportunities for public goods and act on them.

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초록

포스트 사회주의 체제전환국가의 민주주의와 경제성장

강봉구 · 추가영 · 이상준

본 연구는 다양한 정치체제를 채택해 상이한 경제성과를 거두고 있는 탈사회주의 체제전환 27개국에서 민주주의가 경제성장에 미치는 영향을 분석하였다. 특히 2010년 이후 체제전환국들의 정권 유형이, 구분이 어려운 상태라기보다는, 대부분 어느 한 쪽으로 분류하기가 더 쉬운 체제 공고화의 단계에 진입해 있다는 점에서 정치체제와 경제성장 간 상관관계에 대한 분석은 의미를 가지고 할 것이다. 이를 위하여 본 연구는 1996년부터 2010년까지의 세계거버넌스 지수(Worldwide Governance Indicators: WGI)를 독립변수로, 일인당 GDP를 종속변수로 하고 고정효과, PCSE 모델을 사용해 각국의 패널자료를 분석한 결과, 민주주의는 일인당 GDP에 부정적인 영향을 주는 것으로 나타났다. 이러한 결과는 현재 민주주의 체제를 갖추고 있는지 여부보다는 과거 축적된 민주주의 경험이 경제성장에 더 중요하게 작용할 수 있다거나 혹은 제도 개혁이 수반되지 않는 민주주의 체제 수용이 경제성장에 부정적인 영향을 미칠 수 있다는 다른 연구들과 접목될 수 있을 것이다. 다만 앞선 많은 다른 연구들에서 우리가 찾아내는 결과물과 마찬가지로, 본 연구결과는 패널분석을 하나의 방법론으로 채택하여 얻어낸 결과물에 불과하며 이러한 결과물이 현실을 얼마나 잘 설명할 수 있는가에 대한 평가는 긴 시간적 관찰 속에서 이루어지는 다른 연구자들의 추가적인 연구에 맡긴다.

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