Corruption's and Democracy's effects on Economic Growth

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Abstract

Economists have a long argue that political process such as democracy and corruption are important for economic growth. Our objective in this paper is to demonstrate that one of democracy's indirect posititive effects is its ability to mitigate the negative effect of corruption on economic growth. Although most democratic countries in our sample have a high level of corruption, the electoral mechanism inhibits leaders from engaging in acts of corruption that cause damage to economic performance and thus jeopardize their political survival. Utilizing a dynamic panel data approach for more than 40 countries over the period 2000- 2011, the results show that in democratic countries, corruption has no significant effect on economic growth, while the non-democratic countries suffer the negative effects of corruption that retard economic growth.

Keywords: *Corruption, Democracy, Economic Growth, dynamic panel.*

JEL: *C23, E02, O43, O47.*

1. INTRODUCTION

The study of the relationship between economic growth and liberal democracy has attracted the interest of many economists since the end of World War II. These studies have shown that democracy acts positively on economic growth because it facilitates wealth (Lipset (1959), Rodrik (2002)). These studies suggest that there is a close relationship between wealth and democracy suggesting that democracy is more likely to occur in an industrialized society where wealth is generated by a large number of industrial producers.

Other economists have shown through their empirical results that democracy may not have a direct relationship to economic growth: the statistic effect of democracy may be insignificant. This allows us to think that democracy can have indirect positive effects on economic growth. Indeed, democracy has beneficial effects on other variables as political stability and education spending.

We have chosen to explain the indirect effect of democracy on economic growth through political corruption that exists in all systems but to different degrees. The aim is to show that democracy can mitigate the negative effects of corruption on economic growth. It argues that democracy through the electoral mechanism allows citizens to expel politicians who engage in particularly harmful forms of corruption. To do this, we use the generalized method of moments (GMM) estimation techniques of Arellano and Bond using a dynamic panel on a sample of more than 40 democratic and non-democratic countries (see list of countries in Annex I) on the period 2000 to 2011.

The rest of the paper is organized as follows: Section 2 exposes a literature review on the effect of corruption and democracy on economic growth. Section 3 exposes an empirical study on the role of democracy in determining the impact of corruption on economic growth. Section 4 concludes.

2. THE EFFECT OF CORRUPTION AND DEMOCRACY ON ECONOMIC GROWTH: A LITERATURE REVIEW

In this section, we present a review of the literature on the impact of corruption on economic growth, and explain later how democracy can enhance these effects.

2.1 The impact of corruption on economic growth

The World Bank defines corruption as "the abuse of public power to obtain private advantage." This definition suggests that corruption comes only from public sector employees. Another definition of corruption has been proposed by the Council of Europe: "corruption includes acts involving persons vested with public or private who violate their rights under their quality of public official, private employee, independent agent or other such relationship, to obtain illegal benefits either for themselves or for others". According to this definition, corruption comes from both the public and private sector.

The relationship between corruption and economic growth has been the subject of controversy among economists for many years. And two schools of thought exist. While some economists (Mauro (1995), Knack and Keefer (1995), Mo (2001)) argue through their empirical results that corruption can affect economic growth through its negative effects, others argue on the contrary that corruption has a positive effect on economic growth.

Mauro (1995) conducted an empirical study on the relationship between corruption and economic growth and argues that there is a statistically negative effect of corruption on private investment rates. This author argues that the cause of low investment is primarily due to institutional inefficiency: the main channel is through which bad institutions.

Knack and Keefer (1995) also analyzed the impact of corruption on economic growth, adding other indicators such as the performance of the bureaucracy, voice and accountability and security of property rights. The authors use the variable in the institutional quality of services provided by the political risk (Political Risk Services) as a proxy for corruption. Their results show that this variable has a negative effect on economic growth.

Mo (2001) conducted an empirical study to analyze the impact of corruption on economic growth and the importance of the transmission channels. He found that the increase in corruption leads to lower economic growth. This author has shown that political instability is one of the most important channels through which corruption can affect economic growth. The results of this author also show that corruption reduces the level of human capital and the share of private investment.

The results of Isse and Abdiweli (2003) also show the negative and statistically significant effect of corruption on economic growth, the level of education, the legal effectiveness and economic freedom.

On the contrary of the economists who argue that corruption has negative effects on economic growth, Leff (1964), Huntington (1968) and Lui (1985) argue that corruption has a positive effect on economic growth: corruption and essentially "the speed money "can increase the efficiency of the economic system. The government will work better or faster with the "speed" money that will help reduce transaction costs and avoid delays and bureaucratic delays.

According to Leff (1964) and Huntington (1968), allowing individuals to pay bribes to public officials in order to avoid inefficient rules and bureaucratic delays, corruption enhances economic growth. According to these authors, in some developing countries, "corruption is necessary to get things done." If reducing corruption is not associated with changes that include the elimination of ineffective rules, the business activity and economic growth could slow.

Corruption acts as a "piece of compensation for bureaucrats which indicates a more efficient provision of government services and provides margin of maneuver for entrepreneurs to bypass the ineffective regulations", which improves the efficiency of an economy.

Lui (1985) shows that corruption can reduce the waiting time. Bureaucratic delays can impede business training. Bypassing the rules ineffective, corrupt officials can take to improve growth. Sometimes positive levels of corruption contribute to improve growth in countries with relatively effective rules. According Wedeman (1997), the assumption that corruption systematically reduced growth is not entirely justified. Indeed, many corrupt countries have growth rates high.

In what follows, we present a brief literature discussing the effect of democracy on economic growth. democracy has direct effect on economic growth but also indirect benefit on economic performance by mitigating corruption's negative effect on an economy.

2.2 The impact of democracy on economic growth

Democracy has beneficial effects both political and economic. Democratic institutions have roles to control government power and limiting behavior of rent-seeking or intended to introduce unpopular policies. Among the benefits of democracy is that it allows the expulsion of bad leaders.

North (1990) argues that authoritarian elites attack less constrained by institutions of democratic societies. Bueno de Mesquita and al. (2001) support the idea that authoritarian leaders have few checks on their power and therefore engage in cronyism and corruption.

Lipset (1959) argues that there is a close relationship between wealth and democracy. He suggests that democracy is more likely to occur in an industrialized society where wealth is generated by a large number of industrial producers. The middle class maintains a strong participation in a system that provides freedom of political and economic choices sufficient to enable the creation of more wealth.

According to Sirowy and Inkeles (1990), the extension and protection of fundamental freedoms are considered to generate the security expectations needed to motivate people to work, to save and to invest. In addition, the popular political participation has not only resulted in breaking the vested interests and privileges of a few, but also involves a participatory mentality which greatly increases the flow of information that is essential for effective and efficient government. Political pluralism acts to liberate the energies and reception conditions favorable to change and for economic development.

Clague, Keefer and Knack (1996), showed that democracy provides greater safety and security to implement property rights than authoritarian regimes. But the benefits of democracy do not appear in the short term. Property rights are weak when democracy is experiencing a short duration: democracy long (rooted) generates better guarantees for the implementation of property rights.

According to Rodrik (1999), democratic institutions, an independent and effective judiciary, and a good non-corrupt bureaucracy are the institutions to better manage social conflicts distribution.

Rodrik (2000) has provided empirical evidence that:

- Democracy reduces volatility and leads to higher rates of growth in the long term.

- Democracy produces better stability in the short term which means that regardless of the level of long-term growth of an economy, there is less volatility in economic performance under democratic than authoritarian regimes.

- Democracy allows an economy to face with adverse shocks: indicating that political participation enhances the ability of an economy to adapt to changes in the external environment.

- Democracy allows better distribution.

"Taken together, these results provide a clear message: participatory political regimes generate growth higher quality".[1]

Other authors such as Huntington and Nelson (1976) suggest that democracy can hamper economic growth, they argue that in the case of newly democratic developing countries, citizens' demands will rapidly escalate due to increased government spending. According to these authors, political participation must be rooted in order to promote economic growth.

Other empirical studies have shown that democracy can not have a statistically significant direct effect on economic growth. Referring to the work of Helliwell (1994), Przeworski and al. (2000), Drury and al. (2006), these authors concluded that the inexistence of a statistically significant effect of democracy on economic growth. This has allowed researchers to examine the indirect beneficial effects of democracy on growth, for example through increased spending on education and health which themselves contribute to economic growth (Helliwell (1994), Drury and (2006) al., Baum et al. (2003)). Another channel through which democracy positively affects economic growth is political stability. It is recognized that by facilitating the establishment of political stability, growth improves. Corruption can also be an important channel through which democracy positively affects economic growth by mitigating the negative effects on growth. North (1990), Bueno de Masquita andal. (2001) argue that in democratic regimes, citizens can eliminate corrupt politicians and facilitate growth. This ability to punish elected is a powerful incentive for politicians to confine their activities to corruption economically relevant activities. However, in authoritarian regimes, it is relatively difficult to exclude authoritarian leaders who will not suffer retaliation from society leading to extremely expensive forms of corruption.

3. EMPIRICAL ANALYSIS: METHODOLOGY AND ESTIMATION RESULTS

This section tries to demonstrate if democracy can mitigate the negative effects of the corruption on economic growth. It presents the model and outlines the measures and data used in this empirical study. We also interprets the estimation results.

3.1.Data

We use data of more than 40 countries for 12 years (2000-2011). Summary statistics for the data appear in Table 1. Our dependent variable, Real GDP (in logarithm), data are taken from the World Development indicators (2012).

1 Rodrik D., (2002), « Institutions for high-quality Growth: What they are and how to acquire them». *NBER WP,* N° 7540.

Data of corruption index are obtained from Transparency International (2012). This variable varies from 0 (highly corrupt) to 10 (highly clean). According to data collected, the least corrupt countries in our sample are those with score near 10. We can cite, for example, Australia, Canada, Denmark, Finland, Iceland, Luxembourg, New Zeland and Sweden. While most corrupt countries are those with a score neat to o zero, we can cite the case of Algeria, Egypt, Syria, Yemen, Sudan, Angola, Cameroon, Chad, Kenya and Pakistan.

Table 1. Summary Statistics for democratic and non democratic countries

Variables	**Mean**	**Standard deviation**	**Maximum**	**Minimum**
GDP	25.553	2.013	30.235	21.278
Corruption index	5.212	2.618	10	0.72
Life expectancy	4.267	0.152	4.418	3.758
Trade openness	4.312	0.515	5.834	3.100
InitialGDP/capita	8.853	1.697	11.189	5.680
Primary school (in log)	4.591	0.294	4.809	0.415
Population growth	1.782	1.938	17.314	-0.300
Government spending (in log)	2.815	0.338	3.416	0.716
Democracy	7.168	4.636	10	0.72

For democracy variable, the data are extracted from the freedom house. We measure democracy by the combined score of political rights and civil liberties of a country. Thus, democracy index ranges from 2 to 14. The higher the score, the more it there's a great democracy. According to Freedom House, countries with a score less than 5.5 are classified as "free" or "partially free" and the countries that have a higher score than 5, 5, these are referred to as "not free".

For control variables, we choose to include in our model, the trade openness ratio (in logarithm), the initial GDP per capita (in logarithm), the rate of population, Human capital approximated by the rate of primary school enrollment (in logarithm), life expectancy (in logarithm), and government spending (in logarithm). Indeed, according to some theoretical and empirical studies, these variables are important determinants of economic growth. Data of these variables are taken from the World Development indicators (2012).

For the trade openness, many theoretical and empirical studies have shown the positive impact of openness and integration of the economies in world trade on economic growth. Indeed, trade liberalization has positive effects on economic growth as the transfer and development of technology. In addition, trade stimulates cross-border learning of production methods allowing a better allocation of domestic resources.

Concerning the initial GDP per capita, the neoclassical theory states that, given the diminishing returns to capital, rich countries should grow less rapidly than poor countries.

For the variable life expectancy, economists argue that more health workers improves, the more they can work long hours without succumbing to disease and then allows for high productivity.

Government spending can have a negative effect on economic growth because they entail high levels of taxation that discourages private investors. In addition, through public consumption, there's a transfer of resources from the private to the public sector, while most economists believe that the private sector allocates the resources more efficient than the public sector.

For the variable population growth, it can retard economic growth. Indeed, the higher the rate of population growth is high, and more the number of new workers entering the labor market serve to dilute the total capital per worker. Indeed, for a given level of investment, each worker will have less capital stock which leads to lower economic productivity levels.

Human capital is approximated by the primary school enrollment rate. The theory of endogenous growth provides a positive effect of human capital on economic growth in the long term.

3.2. Methodology and Model

We study first the impact of corruption on growth taking into account the interactive effect corruption-democracy for democratic and non democratic countries. We conduct a dynamic panel data for more than 40 countries over the period 2000- 2011 by estimating the following model:

$$Y_{it} = C_0 + C_1.Y_{it-1} + C_2.corruption_t + C_3 Democracy_{it} + C_4.X_{it} + C_5.(corruption * democracy)_{it} + \sigma_i + \varepsilon_{it} \quad (1)$$

Where

Y_{it} is the real GDP (in logarithm) of the country i at time t.

$Corrupt_{it}$ is the index of corruption of the country i at time t.

X_{it} is a vector of control variables which are considered as determinants of economic growth in the literature.

- $Open$ is the trade openness rate (in logarithm).
- Primary school enrollment (in logarithm) (Ln PS).
- Government spending (in logarithm).
- Life expectancy (in logarithm).
- Population rate.
- Initial GDP per capita.

$Democracy_{it}$ is democracy index of country i at time t.

σ_i is a country specific effect

ε_{it} is an error term.

Second, we separate the data into two models. A model that includes only non-democratic countries and a model including the democratic countries and explore the effects of corruption on economic growth by estimating the following model:

$$Y_{it} = C_0 + C_1.Y_{it-1} + C_2.corruption_t + C_3 Democracy_{it} + C_4.X_{it} + \sigma_i + \varepsilon_{it} \quad (2)$$

We utilize the generalized method of moments (GMM) estimation techniques. The method of GMM system will be used. Its consistency depends on the validity of the instruments. The specification test that is considered to study this question is the test of overidentifying restrictions (Hansen test). The second one is the AR(1) Arellano- Bond test of absence of second order serial correlation.

3.3. Empirical results

We report results for over 40 countries for the period 2000 to 2011. To test the differences between the non-democratic and democratic countries, we first tested the interactive effect between democracy and corruption. This allows us to compare the impact of corruption on growth in democratic countries versus those who are undemocratic. We then separate the data into two models. A model that includes only non-democratic countries and a model including the democratic countries. This approach provides a more intuitive way to see the differential effects on corruption democratic and non-democratic regimes. The results are summarized in tables below.

In overall, the models (interaction, non-democracies, and democracies) using GMM (sys) estimation. In all regressions, the Hansen statistics indicate that we cannot reject the null hypothesis, H_0: Over-identifying restrictions are valid. So, the instrument variables used in the GMM estimation in our model are appropriate. The serial correlation test AR (1) Arellano-Bond also accepts the null hypothesis of absence of first order serial correlation.

In Table 2 (regression 2), we present our results for the interactive effect democracy-corruption (for democratic and non democratic countries). The estimation results confirm our thesis that democracy reduces the negative impact of corruption on economic growth. Indeed, the results of the estimation of the model show that a one point increase in the level of corruption has the effect of reducing economic growth by nearly - 0.011 point and an increase in the level of democracy of a point has the effect of increasing the economic growth of 0.11 points. These results indicate that corruption is a drag on economic performance and that democracy can mitigate the negative effects of corruption on economic growth.

Table 2. Impact of corruption on economic growth in Democratic and non Democratic Countries

Variables	(1)	(2)
		Democracy/Corruption
Ln yi_{t-1}	**1.008***** (0.008)	**1.005***** (0.004)
Corruption	**-0.0113*** (0.006)	**-0.011** * (0.006)
Democracy	**0.008***** (0.002)	**-0.002** (0.004)
Democracy/Corruption interaction	–	**0.0015*** (0.0008)
Ln open	**0.029***** (0.011)	**0.0175**** (0.008)
Ln PS	**0.023** (0.020)	**0.002** (0.005)
population	**-0.003***** (0.001)	**-0.0026**** (0.0012)
Ln Government spending	**-0.022*** **0.014**	**-0.037***** (0.011)
Ln life expectancy	**-0.231** 0.139	**-0.153** (0.101)
Ln initial GDP/capita	**0.037**** (0.014)	**0.012** (0.008)
Constant	**0.300** (0.273)	**0.516** (0.325)
Observations	364	361
AR(1) P Value	0.006	0.009
Hansen Test P Value	0.261	0.250

Source: Author calculations,
*, **, *** significant at 10%, 5% and 1% level. Std error are in parentheses.

As an alternative test, in Tables 3 and 4, we present the estimation results for the non-democratic and democratic countries separately. In non-democratic countries (Table 3), the results show that the effect of corruption on economic growth is negative and significant showing that corruption has a deleterious effect on economic performance in these countries. However, the results reported in the table 4 show that in democratic countries, economic

growth is not affected by corruption. Indeed, the coefficient of corruption is negative but insignificant. For both samples of countries, we find that democracy has a positive and significant effect on economic growth. This supports the thesis that democracy reduces the negative effects of any level of corruption.

Table 3. Impact of corruption on economic growth in non Democratic Countries

Variables	**(1)**	**(2)**
Ln yi_{t-1}	**1.007***** (0.005)	**1.028***** (0.025)
Corruption	**-0.015**** (0.008)	**-0.033*** (0.016)
Democracy	–	**0.0188*** (0.010)
Ln open	**0.032***** (0.006)	**0.057***** (0.016)
Ln PS	**0.013**** (0.005)	**0.021** (0.019)
population	**-0.002*** (0.001)	**0.002** (0.003)
Ln Government spending	**-0.005** (0.015)	**0.099** (0.062)
Ln lifeexpectancy	**-0.143** (0.099)	**-0.304** (0.275)
Ln initial GDP/capita	**0.019**** (0.008)	**0.046*** (0.022)
Constant	**0.191** (0.230)	**-0.413** (0.589)
Observations	186	186
AR(1) P Value	0.074	0.001
Hansen Test P Value	0.429	0.530

Source: Author calculations,
*, **, *** significant at 10%, 5% and 1% level. Std error are in parentheses.

Table 4. Impact of corruption on economic growth in Democratic Countries

Variables	(1)	(2)
Ln yi_{t-1}	**1.020***** (0.009)	**0.999***** (0.012)
Corruption	**-0.007** (0.008)	**-0.013** (0.011)
Democracy	–	**0.194*** (0.109)
Ln open	**0.055**** (0.021)	**0.130**** (0.059)
Ln PS	**-0.446** (0.346)	**-0.095** (0.323)
Ln lifeexpectancy	**0.199** (0.349)	**-1.984***** (0.589)
population	**-0.009** (0.01)	**0.021** **(0.015)**
Ln Government spending	**0.020** (0.017)	**0.008** (0.063)
Ln initial GDP/capita	**0.071** ** (0.026)	**0.0751*** (0.037)
Constant	**0.442** (1.39)	**7.458***** (2.483)
Observations	188	188
AR(1) P Value	0.016	0.067
Hansen Test P Value	0.352	0.202

Source: Author calculations,
*, **, *** significant at 10%, 5% and 1% level. Std error are in parentheses.

Among the possible explanations for the absence of significative effect of corruption on economic growth in democratic countries. The first is that the effects are simply due to the small variation in corruption to democratic countries. If the independent variable has a small variation or almost no vary, this variable has no effect on growth. However, corruption varies considerably in democratic countries and varies even more than in authoritarian regimes. In fact, the standard deviation of corruption in democratic regimes is 1.518 and only 1,306 in authoritarian regimes (See appendix B Table B.1 and B.2).

Another more subtle possibility is that despite the high variability of corruption in democratic countries, it may be sufficient enough corruption in any democracy to significantly reduce economic growth, and therefore there is no way falsifying our hypothesis. However, in many democratic countries, corruption levels are relatively high (Greece, Italy, Hungary, Spain). In these countries, the level of corruption during the study period is greater or equal than to the average level of corruption in authoritarian regimes. Thus, there is a lot of data to falsify our hypothesis.

Our main objective in this analysis is to demonstrate that democracy reduces the negative effects of corruption on economic growth, but it is also useful to discuss the effects that can have the control variables that are important determinants of economic growth. It should also be noted that the implementation of all the variables in common generally made some insignificant control variables, if we do not necessarily expect all significant control variables. It is primarily for this reason it is interesting to examine what were the variables most robust control in this analysis.

The coefficient of trade openness is positive and significant showing its positive impact on economic growth. This confirms many theoretical and empirical studies showing the positive impact of openness and integration of the economies in world trade on economic growth. Indeed, trade liberalization has positive effects on economic growth as the transfer and development of technology. In addition, trade stimulates cross-border learning of production methods allowing a better allocation of domestic resources.

Measuring human capital approximated by the primary school enrollment rate has positive and significant coefficient in most cases. This result confirms the theory of endogenous growth that provides a positive effect of human capital on economic growth in the long term.

The neoclassical growth theory predicts that the initial GDP has a negative effect on growth, reflecting the diminishing returns to capital in rich countries. However, our results generally show a positive effect or non-significant effect of this variable on economic growth.

Economists also argue that public spending hurts growth by taking resources away from the private sector (effective) and place them inside the (less efficient) public sector (Barro, 1997). Our results confirm this prediction. Indeed, our results show a negative and significant effect of Government spending on economic growth.

Concerning the population variable, the latter has a negative and significant effect on economic growth in most cases. This sign is expected, in fact the more people is high, the higher it impedes economic growth.

Finally, the life expectancy generally facilitates economic growth, but our results showed insignificant sign in most cases.

4. Conclusion

Through some theoretical and empirical studies, economists have shown that democracy and corruption are political process important for economic growth. The majority of empirical studies on the effect of corruption on economic growth show that corruption has a detrimental effect on growth and most empirical studies on democracy test its direct effect on economic growth. Like Drury and al. (2006) through this study, we have shown that the relationship between growth, corruption and democracy is more complex. Thus, we tried to show through our results that the negative effect of corruption is damped by the political process in which the corruption occurs, and that democracy is beneficial in the sense that it allows to mitigate or reduce the adverse effects of corruption. To understand the political effects of corruption, it is necessary to take into account the political context in which the corruption occurs. Thus, for example capacity in democratic country voters to withdraw its bureau chiefs appeared to mitigate the negative impact of corruption retards economic growth. Although most democratic countries in our sample have a high levels of corruption, their leaders should refrain from corruption on growth achieved lest they be punished in the next election. We argue that the electoral mechanism inhibits corruption democratic countries to have an impact on their economies.

Finally, our results shed light on the relationship between politics and economic growth. Our results show as some empirical work that usually political factors are important determinants of economic growth. In addition, our results suggest that democracy has another advantage to recommend mitigating the negative effects of corruption on growth. Thus, the fact that some countries are victims of corruption, promote democracy within them can not only improve their human rights in general, but their chance of prosperity. Given the importance of democracy in the improvement of human rights and mitigating the negative effects of corruption on economic growth, most of governments must promoting democracy for more prosperity luck.

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APPENDIX A

A.1 List of non democratic countries

1. Lebanon
2. Iran
3. Soudan
4. Kuwait
5. Saudi Arabia
6. Bahrain
7. Yemen
8. Oman
9. Mauritania
10. Syria
11. Jordan
12. Egypt
13. Algeria
14. Morocco
15. Tunisia
16. United Arab Emirates
17. Angola
18. Cameroon
19. Chad
20. China
21. Kazakhastan
22. Kenya
23. Pakistan
24. Zimbabwe

A.2 List of democratic countries

1. Australia
2. Belgium
3. Canada
4. Denmark
5. Finland
6. France
7. Germany
8. Greece
9. Hungary
10. Iceland
11. Ireland
12. Italy
13. Japan
14. Luxembourg
15. Spain
16. New Zeland
17. Sweden
18. United Kingdom

19. United states

APPENDIX B. Summary Statistics

Table B.1. Summary Statistics (for democratic countries)

Variables	Mean	Standard deviation	Maximum	Minimum
GDP	26.958	1.657	30.235	23.304
Corruption index	7.749	1.518	10	4.2
Life expectancy	4.374	0.026	4.418	4.266
Trade openness	4.292	0.597	5.834	3.100
InitialGDP/capita	10.367	0.413	11.189	9.083
Human capital (in log)	4.626	0.031	4.710	4.560
Population growth	0.716	0.613	2.530	-0.286
Government spending (in log)	3.012	0.163	3.394	2.658
Democracy	2.178	0.404	4	2

Table B.2 Summary Statistics (for non democratic countries)

Variables	Mean	Standard deviation	Maximum	Minimum

GDP	24.415	1.490	29.140	21.278
Corruption index	3.286	1.306	6.8	0.72
Life expectancy	4.182	0.158	4.376	3.758
Trade openness	4.304	4,762	5.704	2.519
InitialGDP/capita	7.655	1.332	10.735	5.680
Human capital (in log)	4.559835	0.402	4.809	0.415
Population growth	2.626	2.197	17.314	-0.300
Government spending (in log)	2.651	0.358	3.416	0.716
DEMOCRACY	11.118	1.735	14	6