On the determinants of democracy in the Arab World

Nouha Bougharriou [1]
Walid Benayed[2]
Foued Badr Gabsi[3]

In this paper, we re-examine the "modernization theory" according to which economic development promotes democracy. Results for a panel of 17 Arab countries over the period 1990-2013, reveal that income per capita has a positive and statically significant effect on democracy. Our findings remain robust even after the inclusion of other potential determinants of democracy. Interestingly, we show that education, corruption and trade openness foster the emergence of democracy. However, it seems that urbanization, resource rents and the rise of democracy in neighboring countries impede democratic changes in the region.

Keywords: democracy, income per capita, dynamic panel, Arab World
JEL Classifications: P16, E02, D72, D73

[1]**NouhaBougharriou**, Ph.D in Economics, URED, Faculty of Economics and Management of Sfax, Tunisia, Email: nbougharriou@gmail.com
[2] **Walid Benayed**, Ph.D in Economics, URED, Faculty of Economics and Management of Sfax, Tunisia, Email: benayed87@hotmail.com
[3]**FouedBadrGabsi**, Full Professor, URED, Faculty of Economics and Management of Sfax, Tunisia, Email: foued.gabsi@fsegs.rnu.tn

1. Introduction

The recent uprisings[4] have interrupted authoritarian regimes that have persisted for decades and have built a new trajectory toward democracy in the Arab world. Understanding the evolution of political systems in the region has attracted the attention of researches in the field of political science.

Theoretically, it has been recognized among economists and political scientists that economic development promotes democracy. Such claim, known as "modernization theory" or "Lipset hypothesis"(Lipset, 1959), has been confirmed by many empirical studies (Barro, 1999; Papaioannou and Siourounis, 2008; Benhabib et al., 2011; Heid et al., 2012; Che et al., 2013).

However, Acemoglu et al. (2008) highlights that the positive association between economic development and democracy disappears once country-specific effects are taken into account. This could be explained by the fact that at certain critical historical junctures, societies undertake different political and economic development paths.

In this paper, we study the effect of income per capita on democracy for a panel of 17 Arab countries over the period 1990-2013. Revisiting the "modernization theory" in the Arab World context is motivated by two main features. First, the toppling of autocratic regimes that had governed the Arab nations for decades sheds lights on the possible factors that could explain the emergence of democracy in the region. Second, examining the political dynamics in the Arab countries has received little empirical attention.

Our analysis provides evidence in favor of "modernization theory" in the Arab World context. More concretely, we find that income per capita has a positive and statically significant effect on democracy. This finding is robust even after the inclusion of additional controls.

[4] A series of protests began in Tunisia in 2010 and expanded rapidly to other Arab nations mainly Egypt, Libya, Yemen, Syria and Bahrain. These events led to the so-called "Arab spring".

The rest of the paper is organized as follows. Section 2 provides a brief theoretical overview. Section 3 describes the data set and model specifications used in the empirical analysis. Section 4 presents our empirical findings. In section 5, we check the robustness of our main results. Finally, section 6 concludes.

2. Related Literature

Since the seminal work of Lipset (1959), the role of economic development in the emergence of democracy has been widely investigated in the political economy literature. In his so-called "modernization theory", Lipset (1959) argues that countries with higher income per capita are more likely to be democratic. Indeed, the increase of GDP per capita in poor countries generates incentives among its citizens to undergo a transition toward democracy.

Relying on SURE (seemingly unrelated regressions equations) model (Barro, 1999), fixed effects estimator (Boix , 2011; Treisman, 2011), probit and logit models (Hegre et al., 2012; Freund and Jaud, 2013) and non-linear specifications (Benhabib et al., 2011), the existing empirical literature provides strong support for the modernization theory.

All these studies were criticized for neglecting the high persistence of income and democracy. In addition, according to the "critical junctures hypothesis", both democracy and income are affected by institutional changes and are related to specific historical events (Acemoglu et al., 2008, 2009).

Thus, to account for the potential endogeneity and the high persistence of democracy, Acemoglu et al. (2008) employ a dynamic panel model and use the difference-GMM estimation method to investigate the effect of income on democracy for a large sample of countries during the postwar period (1960–2000). The authors show that income per capita has no impact on democracy.

These surprising findings have been challenged by other authors who have used more advanced econometric methods and expanded data. For example, Boix (2011) extended the data of Acemoglu et al. (2008) to the early nineteenth century and finds that income has a positive and significant impact on democracy.

Using the same data as those employed by Acemoglu et al. (2008), Heid et al. (2012) realize that under the system-GMM estimation, the estimated coefficient of income per capita turns out to be positive and highly statistically significant.

In the same line, Che et al. (2013) find a positive and highly statistically significant effect of income per capita on democracy using system-GMM estimation for the data sets of Acemoglu et al. (2008). The authors reveal that the coefficient of income per capita remains positive and statistically significant even after the use of an alternative measure of democracy, different sub-samples, longer sample periods and longer time intervals for variable measurement, as well after the inclusion of additional controls.

3. Data and Econometric methods

To investigate the effect of income on democracy, we adopt a linear dynamic panel model as specified by Acemoglu et al. (2008):

$$d_{it} = \alpha\, d_{it-1} + \gamma\, y_{it-1} + X_{it-1}\, \beta + \delta_i + \varepsilon_{it} \quad (1)$$

where d_{it} is the democracy level of country i in period t, d_{it-1} is the lagged democracy variable used to take into account the high persistence of democracy over time, y_{it-1}, the main variable of interest, is the lagged income per capita, X_{it-1} is a vector of lagged control variables, δ_i is the fixed effect used to control for time-invariant unobserved factors and ε_{it} is the error term.

To estimate Eq. (1), we follow Acemoglu et al. (2008) and employ the difference-GMM estimator proposed by Arellano and Bond (1991). This approach is used to deal with the endogeneity problem. In fact, the literature emphasizes that democracy may affect economic

development[5] and that might lead to a reverse causality problem running from democracy to income.

In this study, we employ an unbalanced panel of 17 Arab countries with three-year interval data covering the period 1990-2013 (See Appendix for the country list). As a measure of democracy, we use the Freedom House index which is constructed by averaging the sum of political rights and civil liberties indices. The political rights index refers to how fair and free elections are heldwhile the civil liberties index involves a set of fundamental rights mainly freedom of press, freedom of expression, freedom of religious belief, association and organization rights, rule of law and human rights as well as individual and economic ones[6].

The Freedom House index is measured on a 1–7 scale with lower scores mean more liberties and democratic rights in the country. To facilitate our interpretation, we re-adjust these scores thereby a score of 1 represents low levels of democracy, whereas a score of 7 reflects higher ones. Our choice for the Freedom House index as a measure of democracy can be justified by the fact that this index is quite popular and has been used as the main measure in most empirical studies of democracy (Acemoglu et al., 2008; Heid et al., 2012; Che et al., 2013). In addition to that, this index has the advantage of establishing a long historical time-series of observations covering a large number of countries. Our main variable is income per capita. It is measured by the natural logarithm of the real GDP per capita which is taken from World Development Indicators (WDI) database of the World Bank.

To check the robustness of our results, other determinants of democracy are added to the baseline specification. Variables description and data sources as well as summary statistics of our main variables are provided in the Appendix.

[5] See, for example, Przeworski and Limongi (1993);Barro (1996); Tavares and Wacziarg (2001).

[6] Freedom House index provides a maximalist definition of democracy (Munck and Verkuilen, 2002).

4. Empirical Results

Table 1.

Baseline estimation results

Dependent variable: democracy			
	Pooled OLS (1)	FE (2)	Difference GMM (3)
Democracy $_{t-1}$	0.856***	0.292	0.523*
	(0.000)	(0.122)	(0.097)
Income per capita $_{t-1}$	0.029	0.869**	1.401**
	(0.198)	(0.031)	(0.027)
Hansen J test			0.585
F-test	0.000	0.000	0.000
AR(2) test			0.135
Number of instruments			6
Observations	119	119	102
Countries	17	17	17

Notes: Pooled OLS, FE and Difference-GMM regressions use robust standard errors clustered by country. We employ two-step Difference-GMM estimator with the Windmeijer (2005)finite sample correction for standard errors. To avoid overfitting endogenous variables, we collapse the instrument set as suggested by Roodman (2009).As diagnostic, the table reports the p-values of the Hansen test, the Arellano and Bond AR (2) test and the F-test.*, ** and *** denote significance at the 10%, 5% and 1% level, respectively.

Table 1 reports the baseline estimations of Eq. (1). The results from the difference-GMM estimator are captured in columns (3) whereas columns (1) and (2) report the results from pooled OLS and fixed effect regressions, respectively. In the current study, our preferred estimator is the difference-GMM. As shown in Column (3),the lagged income per capita is positive and statistically significant in sharp contrast to the negative and statistically significant coefficients reported by Acemoglu et al. (2008) and in line with the results of Che et al. (2013) and Heid et al. (2012). The results reveal that the point estimate of lagged income per capita is 1.401. This implies that an increase in the lagged income per capita by one percent generates an increase in the steady-state value of democracy by 2.94 percentage

points. We also find evidence of a positive and statically significant relationship between lagged income per capita and democracy under FE estimation. These results confirm the "modernization theory".
The Hansen and AR(2) tests indicate that we cannot reject the validity of our instruments (Arellano and Bond, 1991). Furthermore, the estimated coefficient of the lagged dependent variable (0.523) lies between the fixed effect estimate downwards-biased (0.292) and the pooled OLS estimate upwards-biased (0.856). Hence, our model is well specified and our difference-GMM estimation is valid[7](Blundell and Bond, 2000).

5. Robustness checks

To check the robustness of our main results, we make use of several additional covariates deployed in prior literature as determinants of democracy. In other words, we investigate whether our findings would remain the same after the inclusion of other potential determinants of democracy. The results are summarized in Table 2.
Interestingly, according to the "modernization theory", democratization is not only influenced by income per capita but also affected by other fundamental variables especially those which are related to socioeconomic development. Therefore, we include, in Model (1), lagged population, lagged education with reference to Acemoglu et al. (2008), and lagged urbanization and growth rate following Boix and Stokes (2003) and Boix (2011). As shown in column (3), our results suggest that even after controlling for standard socio-economic factors, the coefficient of lagged income per capita remains positive and statistically significant consistent with our main results.

[7]For that reason, we use different traditional approaches including ordinary least squares (OLS) and the fixed effect (FE) estimator even if they produce biased estimates in the presence of lagged dependent variable and endogeneity problem among the regressors.

Moreover, we find no evidence that the country size affects the level of democracy. This implies that populous countries are not likely to be more democratic. These results support the findings of Acemoglu et al. (2008), but oppose those perceived by Barro (1999) and Che et al. (2013) who establish a positive and significant effect of population on democracy. In addition, we find that education has a positive and statistically significant impact on democracy consistent with the findings of Barro (1999), Glaeser et al. (2007) and Che et al. (2013) and in contrast to the results reported by Acemoglu et al. (2008). Accordingly, an educated population is willing to be more tolerant, more rational and more committed to democratic values. Most recently, the Arab uprisings occurred in 2011 was driven by young educated elite who carried out peaceful protests calling for more democracy and political freedom and led to the downfall of authoritarian regimes in Tunisia, Egypt and Libya.

Table 2.

Robustness checks: other determinants of democracy

Dependent variable : democracy						
	Model (1)			Model (2)		
	Pooled OLS (1)	FE (2)	Difference GMM (3)	Pooled OLS (4)	FE (5)	Difference GMM (6)
Democracy $_{t-1}$	0.894*** (0.000)	0.479** (0.016)	0.758** (0.057)	0.817*** (0.000)	0.242 (0.208)	0.734*** (0.001)
Income per capita $_{t-1}$	0.015 (0.846)	1.297** (0.020)	2.376** (0.013)	-0.029 (0.390)	0.76 (0.156)	1.403*** (0.003)
Population$_{t-1}$	0.022 (0.711)	-0.07 (0.761)	-0.643 (0.285)			
Education $_{t-1}$	0.019 (0.922)	0.631** (0.014)	0.78** (0.026)			

Urbanization $_{t-2}$	0.08 (0.582)	-4.61*** (0.000)	-8.565*** (0.000)			
Growth rate $_t$	0.007 (0.572)	0.018* (0.075)	0.033 (0.253)			
Trade openness $_t$				0.377*** (0.004)	0.611* (0.082)	0.836** (0.014)
Resource rents $_t$				-0.009 (0.548)	-0.207** (0.013)	-0.366* (0.085)
Corruption $_t$				-0.165*** (0.009)	-0.105 (0.281)	-0.3** (0.016)
Neighbor democracy $_t$				-0.216 (0.360)	0.046 (0.898)	-0.627** (0.018)
Hansen J test			0.332			0.935
F-test	0.000	0.000	0.000	0.000	0.000	0.000
AR(2) test			0.724			0.267
Number of instruments			15			11
Observations	84	84	67	110	110	93
Countries	17	17	17	17	17	17

Notes: Pooled OLS, FE and Difference-GMM regressions use robust standard errors clustered by country. We employ two-step Difference-GMM estimator with the Windmeijer (2005)finite sample correction for standard errors. To avoid overfitting endogenous variables, we collapse the instrument set as suggested by Roodman (2009).As diagnostic, the table reports the p-values of the Hansen test, the Arellano and Bond AR (2) test and the F-test.*, ** and *** denote significance at the 10%, 5% and 1% level, respectively.

In line with Barro (1999) and Che et al. (2013), urbanization[8] seems to have a negative and highly statistically significant effect on democracy. Theoretically, the nature of the relationship between urbanization and democracy is not clear. As mentioned by Barro (1999), even though urbanization facilitates the ability to organize and to communicate and

[8] Urbanization becomes significant only after two lags.

makes suppression harder, monitoring and controlling activities in urban areas remain easier.

As well, in the Arab World, urbanization is not associated with gender equality and this could hinder the development of democracy (Fish, 2002). In fact, many studies advocate that Muslim culture is less supportive of women's empowerment (Inglehart and Norris, 2003). Depriving women of the right to vote and to stand for office and thereby, preventing them from the participation in the political life could deter democratic transformation.

Furthermore, the rapid urbanization occurred in the Arab World and especially in oil-producing countries during the three last decades, has increased terrorism (Lia, 2005) and, therefore, impede the emergence of democracy (Rehman Ur and Vanin, 2015). In this regard, researchers have maintained that terrorism arises especially when urbanization is combined with socio-economic problems and this may drive youth bulges to join terrorist groups and to resort to violence and conflicts (Goldstone, 2001; Zakaria, 2001; Urdal, 2012).

The growth rate shows a positive and significant effect under fixed effects, but no systematic influence using difference-GMM. Thus, our results suggest that economic growth is not relevant for democracy.

The results of our first model support the "modernization theory" and show that higher income per capita spurs democracy. However, many studies have indicated that once income rise is reached through oil wealth, its impact on democracy will disappear (Ross, 2001). Moreover, it has been advanced that poor quality of institutions such as high levels of corruption may hamper the emergence of democracy (Feng, 2005). In addition, many studies find evidence that the level of democracy in a given country could be influenced by external factors (Huntington, 1991; Whitehead, 1996). That is to say, countries that are more open to international trade, as well as, countries with more democratic neighbors tend to be more democratic (Csordás and Ludwig, 2011).

In this regard, we incorporate, in Model (2), as additional covariates, resource rents and corruption as in Hegre et al. (2012) and trade openness and the average democracy score in neighboring countries with regards to Csordás and Ludwig (2011). As shown in column (6), the inclusion of these additional controls in our baseline does not alter our main results as the coefficient of lagged income per capita continues to have a positive and statistically significant effect on democracy. Furthermore, resource rents tend to have a negative and significant effect on democracy as advanced by El Badawi and Makdisi (2007), Tsui (2011) and Fayad et al. (2012). This indicates that higher natural resource rents lead to less democracy. According to the "rentier states" theory, oil inhibits democratization in view of the fact that political elite uses revenues collected from oil exports to reinforce their political, economic and social power and thereby to ensure their political survival. Similarly, corruption seems to have a negative and significant impact on democracy. As the ICRG index[9] assigns higher values to less corrupt countries, our results implies that an increase in corruption level stimulates democracy (Hegre et al., 2012). In fact, higher corruption incites citizens to exert pressure for more democracy which fosters government's response to these demands in order to ensure their remain in office.

It is also worth noting that, in contrast to the findings of Csordás and Ludwig (2011), our estimations suggest a positive and statistically significant relationship between trade openness and democracy. Our results show also a significant negative neighbor effect in sharp contrast to the significant positive effect reported by Csordás and Ludwig (2011). Hence, an increase in democracy in neighboring countries impedes democracy at home. This could be explained by the fact that the level of democracy in some Arab countries has decreased in response to the Arab Spring, since some Arab governments,

[9] Corruption takes form of demands for special payments and bribes, patronage, nepotism, job reservations, 'favor-for-favors', secret party funding, and suspiciously close ties.

especially Syrian and Bahraini ones have used repression to eradicate protests and to ensure their continued survival in office.
In both models (1) and (2), the estimated coefficient of the lagged democracy lies between the fixed effect estimates and the pooled OLS estimates. Besides, the Hansen and AR(2) tests indicate that we cannot reject the validity of our instruments. Hence, our two models are well specified and our difference-GMM estimations are valid confirming our main results.

6. Conclusion

This paper re-examines the "modernization theory" in the Arab World context. Using a dynamic panel estimation method for a sample of 17 Arab countries over the period 1990-2013, we find strong support for "Lipset hypothesis" which claims that income per capita has a positive and statically significant effect on democracy. Our results are robust even after the inclusion of other determinants of democracy. Accordingly, we find that education fosters the emergence of democracy in the Arab World. Increasing the level of human capital promotes the spread of tolerance values and mitigates ideological conflicts which in turn induces a transition process towards democracy. However, urbanization seems to hamper democracy as urbanization in the Arab World is often accompanied with gender inequality and socio-economic problems which spur the emergence of terrorism.
For Arab countries, natural resource abundance is perceived as the main impediment to democratization. Indeed, governments use natural resource rents to maintain power and to survive. Furthermore, our findings suggest that higher levels of corruption leads to widespread discontent among citizens and generates popular demands for more democracy and accountability. Our results also show that trade openness has a positive and statically significant impact on democracy which implies that trading with international partners

especially democratic ones enhances the spread of democratic values in the receiving countries. However, we find that an increase in democracy in neighboring countries impedes its emergence at home. This negative neighbor effect could be explained by the fact that Arab leaders are more attracted to power than others and almost fight against all democratization attempt to ensure their political survival.

The findings of this paper suggest that the movement toward democracy in the Arab World is driven by the effect of income and other internal and external factors. However, it is worth investigating the economic implications of the Arab Spring. Therefore, studying the effect of democracy on economic performance remains an interesting area for future research.

References

Acemoglu, D., Johnson, S., Robinson, J. A., & Yared, P. (2008). Income and democracy. American Economic Review 98 (3), 808–842.

Acemoglu, D., Johnson, S., Robinson, J. A., & Yared, P. (2009). Reevaluating the modernization hypothesis. Journal of Monetary Economics 56 (8), 1043–1058.

Arellano, M. and Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. Review of Economic Studies 58, 277–297.

Barro, R. J. (1996). Democracy and Growth. Journal of Economic Growth 1(1), 1–27.

Barro, R. J. (1999). Determinants of democracy. Journal of Political Economy 107, 158–183.

Benhabib, J., Corvalan, A. and Spiegel, M. M. (2011). Reestablishing the Income-democracy Nexus. NBER Working Paper 16832.

Blundell, R., & Bond, S. (2000). GMM estimation with persistent panel data: an application to production functions. Econometric Review 19 (3), 321–340.

Boix, C., & Stokes, S. C. (2003). Endogenous democratization. World Politics 55 (4), 517–549.
Boix, C. (2011). Democracy, development, and the international system. American Political Science Review 105 (4), 809–828.
Che, Y., Lu, Y., Tao, Z., & Wang, P. (2013). The impact of income on democracy revisited. Journal of Comparative Economics 41 (1), 159–169.
Csordás, S., & Ludwig, M. (2011). An empirical investigation of the determinants of democracy: Trade, aid and the neighbor effect. Economics Letters, 110(3), 235-237.
El Badawi, I., & Makdisi, S. (2007). Explaining the democracy deficit in the Arab world. The Quarterly Review of Economics and Finance 46(5), 813-831.
Fayad, G., Bates, R. H., & Hoeffler, A. (2012). Income and Democracy: Lipset's Law Revisited. IMF Working Paper 12/295.
Feng, Y. (2005). Democracy, Governance and Economic Performance. Cambridge, MA.: The MIT Press.
Fish, M. S. (2002). Islam and Authoritarianism. World Politics 55, 4–37.
Freund, C., & Jaud, M. (2013). On The Determinants Of Democratic Transitions. Middle East Development Journal 5(01), 1350005-1-1.
Glaeser, E. L., Ponzetto, G. A. M., & Shleifer, A. (2007). Why does democracy need education? Journal of Economic Growth 12, 77–99.
Goldstone, J. A. (2001). Demography, environment and security. In Environmental Conflict, Paul F. Diehl and Nils Petter Gleditsch, eds. Boulder, CO: Westview, 84–108.
Hegre, H., Knutsen, C. H., & Rød, E. G. (2012). The Determinants of Democracy: A Sensitivity Analysis. mimeo, D. of Political Science, U. of Oslo: Center for the Study of Civil War.
Heid, B., Langer, J., & Larch, M. (2012). Income and democracy: evidence from system GMM estimates. Economics Letters 116, 166–169.

Huntington, S. (1991). The Third Wave Democratization in the Late Twentieth Century. University of Oklahoma Press, Norman OK.
Inglehart, R., & Norris, P. (2003). The true clash of civilizations. In: Foreign policy, 63-70.
Lia, B., 2005. Globalisation and the future of terrorism: Patterns and predictions. London and New York: Routledge.
Lipset, S. M. (1959). Some social requisites of democracy: economic development and political legitimacy. American Political Science Review 53 (1), 69–105.
Munck, G., & Verkuilen, J. (2002). Conceptualizing and measuring democracy: evaluating alternative indices. Comparative Political Studies 35 (1), 5–34.
Papaioannou, E., & Siourounis, G. (2008). Economic and social factors driving the third wave of democratization. Journal of Comparative Economics 36, 365–387.
Rehman Ur, F., & Vanin, P. (2015). Terrorism Risk and Democratic Preferences in Pakistan. Working Papers wp1037, DipartimentoScienzeEconomiche, Universita' di Bologna.
Roodman, D. (2009). A note on the theme of too many instruments. Oxford Bulletin of Economics and Statistics 71 (1), 135-158.
Ross, M. L. (2001). Does oil hinder democracy?. World Politics, 53(3), 325-361.
Tavares, J., & Wacziarg, R. (2001). How democracy affects growth?. European Economic Review 45, 1341–1378.
Treisman, D. (2011). Income, Democracy, and the Cunning of Reason. NBER Working Paper 17132.
Tsui, K. (2011). More oil, less democracy: evidence from worldwide crude oil discoveries. Economic Journal 121, 89–115.
Urdal, H. (2012). A Clash of Generations? Youth Bulges and Political Violence. Expert Paper N° 2012/1, United Nations Population Division, New York

Whitehead, L. (1996). The International Dimensions of Democratisation: Europe and the Americas. New York, Oxford University Press.
Windmeijer, F. (2005). A finite sample correction for the variance of linear efficient two-step GMM estimators. Journal of Econometrics 126, 25–51.
Zakaria, F. (2001). The Roots of Rage. Newsweek 138 (16), 14–33.

APPENDIX.

Country list

Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Tunisia, UAE, Yemen

Table A1.

Variables description and data Sources

Variables	Description	Sources
Democracy	The average of political rights and civil liberties indices. The initial scores are re-adjusted whereby 1 = least free and 7 = most free	Freedom House
Neighbor democracy	The average of democracy score in neighboring countries	Freedom House
Income	The log of real GDP per capita (constant 2005 US$)	WDI
Population	The log of the total population	WDI
Education	The log of school enrollment, secondary (% gross)	WDI
Urbanization	The log of total population living in urban areas	WDI
Growth rate	Real GDP per capita growth	WDI
Trade openness	The log of the sum of exports and imports of goods and services measured as a percentage share of GDP	WDI
Resource rents	The log of natural resource rents which are measured as the market value of extracted material minus the average extraction cost expressed in	WDI

	percent of GDP	
Corruption	Corruption within the political system. This variable is rated from 0 to 6, with 0 = most corrupt and 6 = least corrupt	ICRG

Table A2.

Summary statistics

Variable	**Obs.**	**Mean**	**Std. Dev.**	**Min**	**Max**
Democracy	136	2.245	0.883	1	4.667
Income	136	8.451	1.368	6.125	11.004
Population	136	15.913	1.332	13.08932	18.206
Education	109	4.249	0.339	3.520609	4.744
Urbanization	136	4.166	.364	3.067712	4.594
Growth rate	136	5.075	4.197	-14.5	23.078
Trade openness	125	4.339	0.447	2.611263	5.25
Resource rents	131	2.13	2.449	-7.096498	4.229
Corruption	136	2.34	0.802	0.722	4
Neighbor democracy	136	2.245	0.184	1.885	2.562