The long road to democracy: Does the demand for democracy affect its actual level?

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29 January 2021

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Abstract

In this paper, we evaluate if the demand for democracy affects the actual level of democracy. The analysis is based on the World Values Survey and Worldwide Governance Indicators data and is applied to a sample of 70 countries. We focus on the dynamics of the level of democracy within the individual countries, and not on cross-country differences. We find that in the short run, agents' attitudes towards democracy are negatively correlated with the actual level of democracy. This finding may be explained by crackdowns initiated by authoritarian governments for their self-preservation. Future levels of democracy can be predicted by the agents' demand for an authoritarian leader unhindered by a parliament or elections. Transformations, however, are far from immediate. Our estimations suggest that the time-lag between a decline in the demand for an authoritarian leader and an increase in the level of democracy is around six years. An additional finding is that a greater dependence on oil revenues is associated with a lower democracy level.

JEL classification: D70, D72, P48, Y80

Keywords: Democracy, political leaders, panel data analysis, World Values Survey.

Data: DOI: 10.17632/8gfdfdkkg5.1

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Introduction

Economic literature suggests that democracy does not have a direct impact on economic growth; however, democratic societies increase human capital, political stability and economic freedom, and reduce inflation (Doucouliagos & Ulubaşoğlu 2008). Democratic governments are more predictable (Ezrow & Frantz 2011). They provide more public goods to their citizens and are characterized by a higher level of social inclusion (Deacon 2003). In democratic countries inequality is lower than in those under authoritarian regimes (Muller 1988, Glaeser 2005). In democracies people are healthier and, at least some time after the transition to democracy, their life expectancy increases (Franco et al. 2004, Mackenbach et al. 2013) and infant mortality falls (Navia & Zweifel 2003). In general, living in democracies makes people more satisfied with their lives (Orviska 2014, Owen et al. 2008). Clearly, transitions to democracy have important implications for the wellbeing of populations. In a number of countries there are evident trends towards democratization (Lynch & Crawford 2011, Schenoni & Mainwaring 2019). At the same time, in many democratic countries a wave of populism is challenging liberal democratic institutions (Galston 2018, Waisbord 2018, Lührmann & Lindberg 2019, Cassani & Tomini 2020).

This raises the question: If the population of a country demands more democracy, does this, in fact, lead to democratization? Are changes immediate or do they only occur after a lag? If the demand for populist or authoritarian leaders grows, should we expect to see a decline in the level of democracy? Our paper aims to answer these questions. To measure the demand for democracy, we utilize World Values Survey (WVS) questions regarding respondents' sentiments towards democracy and authoritarian leaders. We compare replies to these questions with the actual level of democracy measured by `Voice & Accountability', as provided by Worldwide Governance Indicators. Our estimates suggest that agents' sentiments towards democracy are negatively related to the observed level of democracy in the short run. It is likely that in countries with an authoritarian regime an increase in the demand for democracy leads to greater repression. In democratic countries, declines in the demand for democracy may lead to even more freedom. Such responses in both types of regimes can be explained by the desire for self-preservation, in that, as societal support declines, they aim to transmit their plan of action to future generations.

In the longer-run, the level of democracy can be forecasted by the demand for an authoritarian leader. A decline in the demand for authoritarianism does not lead to an immediate change in the level of democracy. It follows, instead, after a 6-year lag. We argue that due to large intervals between the waves in the WVS, the actual lag may be even larger.

There is extensive literature on the causes of democratization. It is often argued that democracy is more likely in economically developed countries (Burkhart & Lewis-Beck 1994, Barro 1999, Geddes 1999, Vanhanen 2004). Vanhanen explains that in developed countries multiple interest groups control enterprises and the means of production. However, democratic transition is more likely in periods of economic decline (Geddes 1999). In fact, military regimes are less resistant to economic crises. Personalist regimes are more resilient to economic decline

than military regimes. Single-party authoritarian regimes are the most resilient to economic declines.

It is often found that political regimes in petroleum-producing countries are more stable. Therefore, petroleum production in authoritarian regimes makes democratization less likely (Barro 1999, Ross 2001, Morrison 2007, Colgan 2015, Write et al. 2015) but it encourages democratic survival in the presence of a democratic regime (Gurses 2011). However, Gurses (2009) argues that if rents from oil production are invested in public education and economic development, oil-producing countries may tend towards the democratic.

Cultural aspects also matter. There is evidence that Muslim counties are less likely to become democratic (Barro 1999, Fish 2002). Barro 1999 also reported a negative impact of the non-religious population on democratization. There is also evidence that a British colonial heritage contributes to better prospects for democracy (Weiner 1987).

Democratization was also studied from a `demand' perspective. Welzel and Inglehart (2008) argued that democracy does not emerge because elites adopt democracy in a vacuum, but rather, a well-organized and well-motivated demand for democracy limits the choice for the elites. Therefore, democratization is induced when people acquire resources and values that enable them to put effective pressures on the elites. The authors emphasize the importance of self-expression values, which reflect the level of interpersonal trust, tolerance and political activism.

Our work is related to that of Welzel and Inglehart (2008) to the extent that we also study democratization from the demand perspective. However, we focus on more direct measures of the demand for democracy: people's attitudes towards democracy and demand for an authoritarian leader. In fact, Welzel and Inglehart (2008) discarded these measures because in Albania and Azerbaijan the percentage of people expressing favorable attitudes towards democracy was higher than in Sweden and Switzerland. We overcome this problem by applying fixed effects regressions for data analysis. Consequently, we do not focus on cross-country differences, but on the dynamics of the democracy measures within the countries. We expect to find that better attitudes towards democracy and lower demand for an authoritarian leader would increase the actual level of democracy; however, our estimates reveal a more complicated relationship.

Data and methodology

We analyze data from 70 countries. The period of analysis is 1996-2019. All variables that we use in our analysis and their sources are summarized in Table 4 in the Appendix. Table 5 presents definitions of the variables.

In order to construct our dependent variable, we use the data on Voice & Accountability provided by Worldwide Governance Indicators. According to its definition, this variable captures 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. We consider these data a measure of democracy. This variable is aggregated from a few sources, such as the Democracy Index, calculated by the Economist Intelligence Unit, confidence in the honesty of elections, press freedom index, etc. Larger values correspond to stronger democratic institutions. Despite the time range of this variable is 1996-2019, there are no observations for 1997, 1999 and 2001. In most of our regressions, we linearly interpolated these data using 1996, 1998, 2000 and 2002 observations. As a robustness check, we also provide regression outputs with no interpolated observations.

By definition, Voice & Accountability takes values between -2.5 and 2.5. This resembles the property of probabilities, which are bounded in the [0,1] interval. To reflect this fact, probabilities are usually modeled employing logit transformation: log(p/(1-p)). We transform our dependent variable in a similar way. Our dependent variable Y is defined as

$$Y = log\left(\frac{VA+2.5}{2.5-VA}\right),$$

where VA denotes Voice & Accountability. This transformation is strictly increasing: larger values of Voice & Accountability correspond to larger *Y*. As a robustness check, we also estimate a linear model, with no transformation.

In order to construct a dependent variable, Welzel and Inglehart (2008) used Freedom House's democracy index and, after rescaling, multiplied it by the control of corruption index provided by Worldwide Governance Indicators. They argued that widespread corruption reduces a government's responsiveness to its citizens' needs and that the democracy index provided by Freedom House does not account for this factor. In our case, there is no need to perform this operation, as our dependent variable is already highly correlated with the control of corruption. The correlation between Voice & Accountability and the control of corruption index is 0.849. Another advantage of Voice & Accountability over the Freedom House democracy index is that the historical data are easily available, which allow for performing panel data econometric analysis and simplify the replication of the results.

We use two questions from the World Values Survey (Inglehart et al. 2014, Haerpfer 2020) in our analysis. Not knowing in advance which has the stronger predictive power as an explanatory variable, we study both.

Respondents are asked their opinion about a democratic system, described as very good, fairly good, fairly bad, or very bad (question Q238). They may also reply that they do not know, or offer no response. We define the variable as `support for democracy' summing the percentage of respondents who reply that the democratic system is very good and fairly good.

In addition, respondents are asked whether it is good to have a strong leader who does not have to bother with a parliament or elections (question Q235). The definition of such a strong leader is in line with the definition of an authoritarian leader in classical personalistic dictatorships (Geddes et al. 2018). Therefore, we consider the terms `strong leader' and

`authoritarian leader' synonyms. Again, we sum the shares of respondents who reply that having a strong leader is very good or fairly good. We call this variable `support for a strong leader'. We expect that this variable approximates the demand for an authoritarian leader. There is a moderate negative correlation between the support for a strong leader and demand for democracy: -0.197.

We have data from 5 waves of the WVS: 1994-1998, 1999-2004, 2005-2009, 2010-2014, and 2017-2020. The time range of the waves is rather broad: 4-5 years. In order to match these data with the other datasets, we suppose that these data correspond to one year before the end of the wave, i.e. 1997, 2003, 2008, 2013, and 2019. As we assign the date closer to the end of the periods, the variables obtained from the WVS, on average, lag slightly behind our dependent variable from the same year. However, as the surveys were implemented during the last years of the waves in a number of countries, our results are Granger-causal (Granger 1969) only if we take explanatory variables with lags greater or equal to 2 years.

Furthermore, we control for two economic variables: GDP per capita in constant prices PPP and oil rents, which are defined as the difference between the value of crude oil production at world prices and total costs of production. Both variables come from the World Bank Development Indicators (WDI).

Our dataset constitutes an unbalanced panel of 70 countries, with 5 time periods. At the time of writing, the data on oil rents in 2019 was not available. Therefore, when including this variable in our model, the year 2019 drops from the analysis, leaving us with 4 time periods. The year 2019 also drops out when we analyze lagged data. Thus, our panel can be viewed as "large N, small T". In such cases, the standard fixed effects estimator is consistent even in the presence of the unit root in the residuals (Wooldridge 2002, chapter 7).

Cross-country differences in the level of democracy may be due to diverse cultures, history, religion, and myriad other factors. We do not aim to describe all of them, but focus instead on the `within' effects: the dynamics of a country's level of democracy, not its absolute level. Therefore, we apply a standard `within' estimator with fixed individual (country-specific) and time effects.

The Breusch-Godfrey (Breusch 1978, Godfrey 1978) test for serial correlations in residuals rejects the null hypothesis of no serial correlation at the 5% significance level in all our models. Therefore, we present robust standard errors of the Arellano type (Arellano 1987). The use of robust standard errors also allows for possible heteroscedasticity in the data.

Results

Models 1-4 in Table 1, present estimates of contemporaneous models. In model 1, we regress logit-transformed Voice & Accountability on support for democracy. In model 2, we add

support for a strong leader to the regression. In models 3 and 4, we add the logarithm of the GDP per capita and rents from oil. In all the models, support for democracy is negative and significant at the 5% significance level. This result is rather counterintuitive: more positive sentiments towards democracy are associated with a lower level of democracy. It is possible that increases in the support for democracy lead to a repressive reaction in the authoritarian regimes: `a tightening of the screws', as occurs in Russia (Shevtsova 2012, Sakwa 2015, Østbø 2017).

In democratic countries, declines in the demand for democracy may lead to even more freedom. Noting that societal support for democracy is in decline, democratic regimes aim to strengthen their values as a legacy to future generations. For example, near the end of his mandate, American president Barack Obama issued a directive that public schools allow transgender students to use restrooms corresponding to their gender identity (Kogan 2017, Jones 2018, Colliver & Coyle 2020). This directive was later rescinded by President Trump.

However, this finding is not free of endogeneity problems. Reverse causality may also occur: during times when the level of democracy in a country declines, people may assign greater importance to democratic values than they did when the level of democracy was higher. Nevertheless, in the next section, we will show that this result is also Granger-causal.

[Insert Table 1 here]

Greater rents from oil are associated with a lower level of democracy in a country. This result is in line with the literature discussed in the introduction. The other variables do not have a statistically significant impact.

In order to resolve the endogeneity problems, it is possible to take independent variables with lags, as per Granger causality (Granger 1969). In models 5-7, we re-estimate models 1-4 with independent variables taken with a 6-year lag. Support for democracy changes its sign and becomes insignificant. The coefficients corresponding to support for a strong leader are negative and significant at the 5% significance level: greater support for an authoritarian leader, reflected by WVS, is associated with a lower level of democracy in 6 years. Rents from oil preserved their negative and highly significant coefficient. The logarithm of GDP per capita remained insignificant.

It is important to mention that R^2 and R^2-adjusted are low in our models because we used plm package for programming language R which underestimates the coefficients of determination in comparison to similar procedures in Stata and other programming languages.[2]

[2] https://stats.stackexchange.com/questions/117912/wrong-reported-total-sum-of-squares-in-time-fixed-effects-with-plm-twoways
http://karthur.org/2016/fixed-effects-panel-models-in-r.html

In Table 2 we check the robustness of our results. The first two columns are similar to columns 4 and 8 from Table 1; however, instead of logit-transformed dependent variable, we use the linear functional form. In general, the results are similar to those in Table 1.

[Insert Table 2 here]

In columns 3-4, we estimate the same models as 4 and 8 in Table 1, but with no linear interpolation of the dependent variable in years 1997, 1999, and 2001. Results are similar.

In the last two columns we estimate the models, excluding OECD countries from the sample. I.e. estimation was made on the subsample of developing countries. Again, the results are similar to those presented in Table 1. Unfortunately, the number of observations for OECD countries is rather small and thus insufficient to obtain reliable econometric estimates for this subset of countries.

Lags

In Tables 1 and 2, we present estimates of contemporaneous links between respondents' attitudes towards democracy and strong leaders, and the actual level of democracy measured by Voice & Accountability. Furthermore, 6-years lags were analyzed. However, it is also interesting to analyze shorter lags. For this reason, we estimated regressions (similar to models 4 and 8 in Table 1) with lags of 0-6 order. Due to the construction of our regressors, only regressions with lags greater or equal to 2 may be referred to Granger causality: past values of the respondents' attitudes towards democracy contain information that helps predict the actual level of democracy.

[Insert Figure 1 here]

The corresponding coefficients are presented in Figures 1 and 2. Figure 1 presents the coefficients corresponding to the `support for democracy' variable. The coefficients increase with the lag: they are negative and, for the most part, significant at the 10% significance levels for lags 0-2. Note that the second lag provides us with Granger-causal results. Lags 3-6 correspond to the coefficients insignificantly different from zero, but there is an upward tendency. Whether they turn positive and statistically significant for lags greater or equal to 7 is interesting; however, we cannot analyze such large lags because of the insufficient number of observations.

In Figure 2 we depict the coefficient corresponding to the support for a strong leader. The coefficients decline when the order of lag grows. However, the coefficients are insignificant for all lags apart from the 6-year lag. This indicates that if the demand for an authoritarian leader

declines, the actual democratization of a country is far from immediate. In the best case, a 6-year horizon can be expected.

[Insert Figure 2 here]

In fact, the actual time period between a change in the demand for democracy and actual democratization may be even longer. This comes from the fact that the intervals between the waves of the World Values Survey are relatively large: 6-7 years. If the 2017-2020 wave indicates a decline in the demand for an authoritarian leader compared to the 2010-2014 wave, our empirical model assumes that this change happened at the time of the more recent wave. However, the actual change may have occurred earlier, in 2015, for example. Therefore, it is likely that our model underestimates the period needed for democratization.

The long gap between the decline in the demand for an authoritarian leader and real democratization could be a demotivating factor for civil societies struggling for human rights in authoritarian countries. But, as our models are symmetric for declines and growths in the demand for authoritarian leaders, if demand for an authoritarian leader increases, actual autocratization is likely to follow after a substantial period of time.

Forecasts

Table 3 presents changes in the support for authoritarian leaders in most countries under analysis. These changes are calculated as the difference between the support for an authoritarian leader between the waves 2010-2014 and 2017-2020. Only those countries present in both waves are analyzed. Positive values indicate an increase in the support for an authoritarian leader, which can be translated into a future decline in democracy. The strongest effect is expected in Thailand, Azerbaijan, Iraq, Zimbabwe, Georgia, Malaysia, South Korea, Nigeria and the Philippines.

[Insert Table 3 here]

Belarus is also in the risk zone. Support for an authoritarian leader increased by 15 per cent during the analyzed period: from 47 to 62 per cent. This change is somewhat counterintuitive as it is not in line with the large-scale protests against the Belarusian autocrat A. Lukashenko beginning in the second half of 2020. One possible explanation for this inconsistency is that the survey (WVS) in Belarus took place in February-March 2018. While in 2020, during presidential elections, public opinion may have changed. Buzgalin & Kolganov (2020) estimated that in the initial phase of the Belarusian protests opposition to Lukashenko constituted 15-20 per cent of population. These antagonists were, however, very active, while at the same time, the regime's response was inadequate. As a result, the opposition won the information war. Protests in Belarus today are, for the most part, directed against the current president A. Lukashenko and

not against the authoritarian regime in general. Many Belarusian protesters do not wish to join the EU or NATO, and may even have pro-Putin sentiments (Menon 2020).

The steepest decline in the demand for an authoritarian leader is observed in Egypt, Russia, Tunisia, Kyrgyz Republic and Spain. Our models predict that after some period of time, the actual level of democracy, measured by Voice & Accountability, will rise in these countries.

Conclusions

In this paper, we analyzed the links between agents' attitudes towards democracy and towards an authoritarian leader, and the actual level of democracy. We showed that in the short run (0-2 years), the relationship between the agents' attitudes towards democracy and the actual level of democracy is negative. However, no long-term consequences of the changes in agents' attitudes towards democracy were observed. Agents' demand for an authoritarian leader, on the contrary, has no significant impact in the short run. However, we find it has a significant impact on the democracy level if taken with 6-year lag: a lower demand for an authoritarian leader is associated with a greater level of democracy. As we argue in the text, large intervals between the waves in the WVS can make the actual lag even longer.

In many countries, e.g., Thailand, Azerbaijan, Iraq, Zimbabwe, Georgia, Malaysia, South Korea, Nigeria and the Philippines demand for an authoritarian leader is increasing; this may worsen the positions of these countries in the democracy ratings. At the same time, in Egypt, Russia, Tunisia, the Kyrgyz Republic and Spain, demand for an authoritarian leader is declining. Our analysis predicts that, after a time, the democracy level in these countries is likely to rise.

Future analysis may focus on more homogenous groups of countries such as the CIS, sub-Saharan Africa, Latin America, South-East Asia, etc. Such works could provide more detailed, region-specific estimates and predictions and provide analysis not only of the `within country' dynamics of democracy, but also cross-country differences. Today, the number of observations provided by the WVS is insufficient for such tasks; however, future waves of the survey may give researchers the opportunity to overcome these limitations. Another promising extension of our research could be the application of a model that allows for the asymmetric effects of increases and declines in the demand for democracy.

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Table 1. Fixed effects, dependent variable: Voice & accountability

	Contemporaneous models				Lag = 6 years			
	1	2	3	4	5	6	7	8
Support for democracy	-0.5811** (0.2209)	-0.5524*** (0.2136)	-0.5862*** (0.2245)	-0.7363*** (0.2611)	0.1920 (0.2759)	0.1673 (0.2566)	0.1716 (0.2562)	0.1811 (0.2537)
Support for a strong leader		0.1391 (0.1026)	0.1356 (0.1013)	0.0853 (0.0960)		-0.2217** (0.0936)	-0.2258** (0.0940)	-0.2183** (0.1006)
GDP/cap PPP (log)			0.0422 (0.1094)	-0.0394 (0.1250)			-0.0083 (0.1189)	0.0482 (0.0885)
Rents from oil				-0.0212*** (0.0067)				-0.0158*** (0.0050)
R^2	0.0319	0.0413	0.0449	0.0602	0.0001	0.0378	0.0391	0.0884
N	275	268	265	192	201	197	194	191
DF	196	189	186	115	125	121	118	114

Table 2. Fixed effects, dependent variable: Voice & accountability, or its transformation

	Linear functional form		No dependent variable interpolation		Developing countries	
	Lag=0	Lag=6	Lag=0	Lag=6	Lag=0	Lag=6
Support for democracy	-0.8046*** (0.2970)	0.1844 (0.2855)	-1.1779*** (0.3325)	0.2068 (0.2772)	-0.6048** (0.2063)	0.1811 (0.2090)
Support for a strong leader	0.1093 (0.1104)	-0.2008* (0.1051)	0.1346 (0.1050)	-0.2290* (0.1259)	0.0136 (0.0651)	-0.2183** (0.1070)
GDP/cap PPP (log)	-0.0125 (0.1341)	0.0708 (0.0954)	-0.2223 (0.1591)	-0.1119 (0.1202)	0.1516 (0.1478)	0.0482 (0.0824)
Rents from oil	-0.0232** (0.0073)	-0.0163*** (0.0058)	-0.0257** (0.0086)	-0.0176** (0.0080)	-0.0014 (0.0051)	-0.0158** (0.0068)
R^2	0.0938	0.0656	0.2037	0.1772	0.1129	0.0840
N	191	191	151	151	103	103
DF	114	114	75	75	55	55

Table 3. Change in strong leader support between the last two waves: 2010-2014 and 2017-2020

Increase in strong leader support		Small change in strong leader support		Decline in strong leader support	
THA	0.58	CHL	0.06	BRA	-0.08
AZE	0.45	JOR	0.06	EST	-0.13
IRQ	0.32	ARM	0.05	UKR	-0.13
ZWE	0.22	NLD	0.05	LBN	-0.14
GEO	0.19	TWN	0.05	ESP	-0.17
MYS	0.19	AUS	0.04	KGZ	-0.2
KOR	0.18	ECU	0.04	TUN	-0.21
NGA	0.18	SVN	0.04	RUS	-0.27
PHL	0.16	USA	0.04	EGY	-0.66
BLR	0.15	KAZ	0.04		
ARG	0.12	ROU	0.02		
MEX	0.12	PAK	0.01		
CYP	0.11	DEU	-0.01		
PER	0.11	HKG	-0.02		
CHN	0.1	JPN	-0.02		
COL	0.08	NZL	-0.03		
		POL	-0.04		
		SWE	-0.07		

Figure 1. Coefficients of `support for democracy' with different time lags (years).

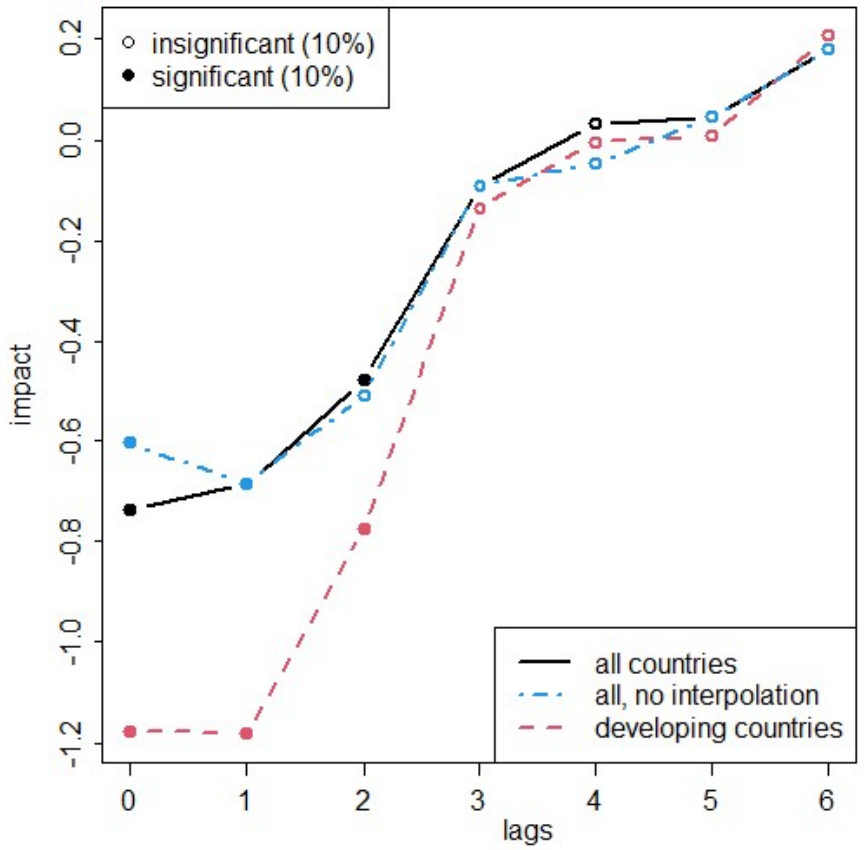
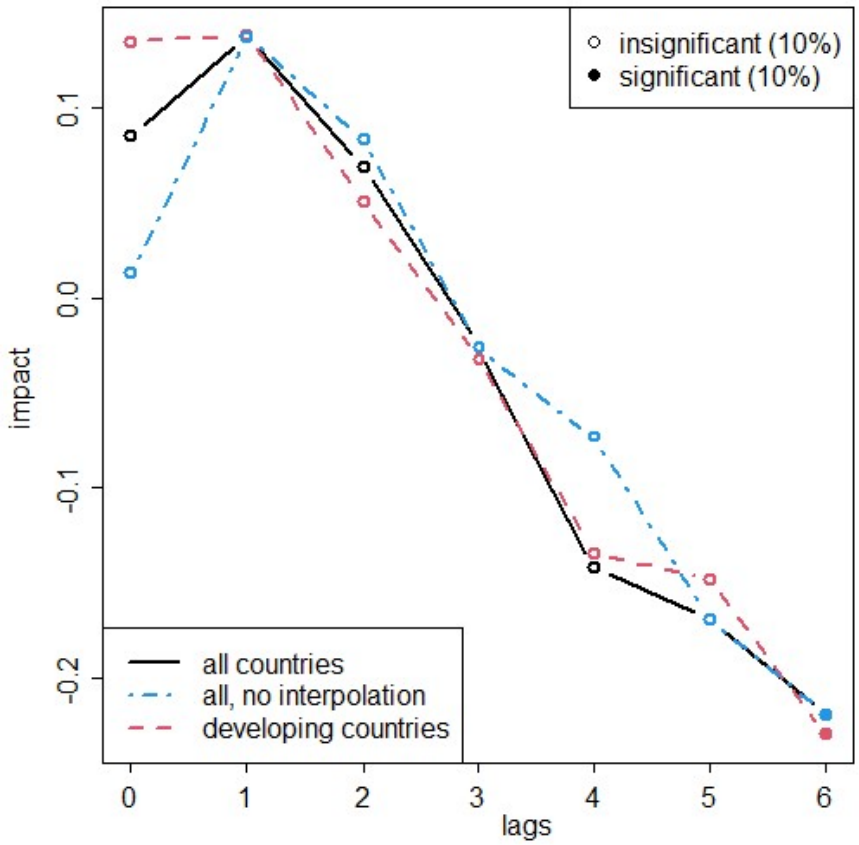


Figure 2. Coefficients of `support for a strong leader' with different time lags (years).



Appendix

Table 4. Descriptive statistics

	mean	sd	min	max	N	Source
Voice & accountability	0.2295	0.9680	-1.9496	1.7380	370	WDI
Support for democracy	0.8279	0.0935	0.45	0.99	275	WVS
Support for a strong leader	0.3729	0.1927	0.05	0.95	271	WVS
GDP/cap PPP (log)	9.6707	0.9266	6.5769	11.0609	359	WGI
Rents from oil	2.5522	6.4294	0	52.3647	284	WGI

Table 5. Variable definitions

variables	Definitions
Voice & accountability	The variable captures 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.
Support for democracy	Percentage of respondents, who agree or strongly agree with the statement: "Having a democratic political system is good".
Support for a strong leader	Percentage of respondents, who agree or strongly agree with the statement: "Having a strong leader, who does not have to bother with parliament and elections is good".
GDP/cap PPP (log)	The natural logarithm of GDP per capita, PPP (constant 2017 international dollars).
Rents from oil	The difference between the value of crude oil production at world prices and total costs of production