

## **Electoral Competitiveness and Turnout in Autocracies and Democracies**

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### **Abstract**

Electoral turnout can be explained to a large extent by the competitiveness of the election based on the assumption of a rational voter. Competitiveness is commonly operationalized by the closeness of the race. Using this ex post measure presupposes that the voter’s ex ante estimations of closeness are fairly accurate. The applicability of this ex post measure is questionable in autocratic elections due to the uneven playing field. This paper introduces an ex ante measure of competitiveness focusing on the uneven playing field. The effect of the measure is estimated in legislative elections in democracies and electoral autocracies between 1975 and 2012. Increased competitiveness increases the turnout in democracies, whereas the effect remains reversed in autocracies.

### **Keywords**

Electoral turnout, Democracies, Autocracies, competitiveness

## 1. Introduction

In democracies, electoral turnout is perceived a measure of political equality and participation. High turnout rates are commonly associated with good democratic performance and quality: ‘The democratic goal should be not just universal *suffrage* but universal or near-universal *turnout* [...]’ (Lijphart 2008, 203, emphasis in original). Nonetheless, electoral turnout varies significantly across countries and time. Cross-national studies typically focus on established democracies. Analyses of turnout in autocracies remain an exception. Although elections in autocracies might serve different purposes than in democracies, turnout is equally relevant in these regimes. It can be instrumentalized to demonstrate legitimacy of the incumbent through public endorsement (Sjoberg 2014). At the same time the elections provide the incumbent with information of actual popular support, which in autocracies is scarce information due to the dictator’s dilemma (Wintrobe 2007; Cox 2009; Schedler 2013).

The focus on democracies in cross-national studies of electoral turnout is based on two assumptions. Firstly, the individual vote is presumed more significant in democracies as it is directly related to the distribution of power (Endersby and Kriekhaus 2008, 601). However, there are as well cases of change of power in autocracies due to elections (Brownlee 2009; Donno 2012; Lueders and Croissant 2014). Albeit their share remains lower than in democracies, there is a relationship between votes and distribution of power at a smaller scale. Secondly, there remains an academic skepticism towards nominally democratic institutions in autocracies. Electoral systems in autocracies are for example commonly assumed to solely serve the interests of the incumbent or ruling party (Pepinsky 2014, 2). Considering the advantages of high turnout in autocracies depicted above autocratic incumbent’s interest would be presumed to facilitate high turnout. Yet, on average turnout in autocracies is on a lower than in democracies (Endersby and Kriekhaus 2008). Other factors besides the immediate interests of the autocratic incumbent presumably influence turnout and merit further academic interest.

In previous studies, a large proportion of the observed variance is explained using a standard set of variables. Institutions such as proportional electoral systems, compulsory voting and unicameralism are associated with higher levels of turnout. From the socio-economic perspective, large populations, poor economic development and low turnout in previous elections determine lower levels of turnout. Factors regarding the political process, such as close electoral races and decisiveness of the elections are associated with higher levels of turnout (see for review Blais 2006; Geys 2006; Cancela and Geys 2016; Lijphart 2008, 204).

Studies of turnout in young democracies or non-democratic regimes found similar but weaker effects of the institutional variables, and partly similar effects of the socio-economic variables (Blais and Dobrzynska 1998; Kostadinova 2003; Endersby and Kriekhaus 2008; Stockemer 2016b; i Coma 2016). Regarding the effect of competitiveness, there is some evidence for a reversed effect in autocracies (Stockemer 2015; Kostadinova 2003). However, research lacks an explanation for this reversal. For

democracies, it is assumed that individuals will consider the costs and benefits of casting a ballot. A potential voter is more likely to cast a ballot if they perceive their individual vote to make a difference. This is the case in close races between the leading candidates and parties (Matsusaka and Palda 1993; Stockemer 2015). The common measure for competitiveness is the gap between votes or vote shares of winner and runner up. However, this measure is not available until after the votes have been casted. The decision to participate or abstain is reached beforehand. Hence, the effect is presumably dependent on the potential voter's accurate assessment of closeness before the election. This accuracy is commonly assumed for democratic elections due to sufficient experience with democratic processes (i Coma 2016, 54f). In contrast, autocratic elections take place on an uneven playing field (Levitsky and Way 2010, 9f). Under the circumstances of controlled multipartism, electoral fraud, or opposition harassment, the voter's ex ante assessment of the closeness does not necessarily agree with the actual ex post closeness. This paper readdresses the measures of competitiveness and their effect on electoral turnout. Are the effects of competitiveness on electoral turnout in electoral autocracies different from the effects in democracies? Are these effects conditioned by the operationalization of competitiveness?

To address these questions, the paper proceeds as follows: Based on a review of relevant literature on turnout in democracies and autocracies (Section 2), an alternative ex ante operationalization of competitiveness is considered (Section 3.2). This measure puts emphasis on the levelness of the electoral playing field. For comparison, the distance between the vote shares of the largest government party and the largest oppositional party is included as an ex post operationalization of competitiveness. As the effect of competitiveness differs depending on the design of the electoral system, interaction effects will be included. The complete models will furthermore include common institutional and socio-economic determinants of turnout (Section 3.3). Descriptive statistics of these measures are presented and their effect will be tested in regression models of electoral turnout in parliamentary elections between 1975 and 2012 (Section 4). Separate models for two operationalizations of turnout, the share of voting age population and the share of the registered voters that cast a ballot, will be estimated. The universe of cases includes democratic and autocratic elections. The specific effects of competitiveness on turnout under authoritarian ruling will be incorporated in the model through the estimation of interaction effects.

For democracies, the commonly assumed effects of the tested determinants were reproducible to a large extent. Including autocracies in these models, the ex ante measures of competitiveness outperform the ex post measures. However, the effect remains reversed in autocracies. An analysis of outlying cases shows the commonalities of cases with high turnout despite low measures of competitiveness.

## 2. Literature Review

Determinants of electoral turnout in democracies are usually institutional, socioeconomic or relating to the political process itself<sup>1</sup>. Political institutions are assumed to ‘provide an important incentive structure for voter turnout’ (Jackman 1987, 416). Institutions fostering electoral turnout include among other compulsory voting and proportional representation.

The positive effect of compulsory voting is self-explanatory. These laws tend to boost turnout by 10 to 15 percentage points (Blais 2006, 113). Approximately 30 countries around the world have implemented laws on compulsory voting. However, it cannot be accepted as a panacea against low turnout, as only few countries enforce the laws and penalize non-compliance (Hill and Louth 2004, 4; Jackman 1987, 409; Lijphart 2008, 203). In some studies, countries with compulsory voting laws are excluded from the sample (Gallego, Rico, and Anduiza 2012) or analyzed separately (Freitag 1996) based on the assumption of fundamentally different incentive structures for participation. More commonly, the effect is represented with a dummy variable (Cancela and Geys 2016, 272).

Proportional electoral systems are found to increase turnout in comparison to plurality and majority systems. Disproportionality of plurality and majority systems tends to convey the impression of wasted votes, whereas the proportional distribution of seats fosters turnout (Endersby and Kriekhaus 2008, 602). This effect was confirmed for consolidated democracies (Jackman and Miller 1995; Freitag 1996; Geys 2006). For young democracies the effects remain much weaker (Fornos, Power, and Garand 2004; Kostadinova 2003), as in these countries a process of institutional learning is still ongoing and the voters are not familiar with the functioning of the electoral system (Gallego, Rico, and Anduiza 2012).

Socio-economic variables determining electoral turnout include characteristics of the population and development. In countries with smaller populations it is assumed more likely to cast the decisive vote, thus increasing turnout (Geys 2006, 642; Stockemer 2015, 190). High economic development is found to stimulate turnout through higher levels of education and political participation (Blais and Dobrzynska 1998; Fornos, Power, and Garand 2004; Freitag 1996).

According to Geys (2006, 647) and De Paola and Scoppa (2013, 463), the link between competitiveness and turnout is among the most analyzed ones in the literature. Competitiveness is commonly conceptualized as the closeness of the electoral race. The ‘Downsian Closeness hypothesis’ (Matsusaka and Palda 1993) assumes that each individual voter rationally estimates the costs and benefits of voting. These estimations already are considered in the effect of proportional electoral systems and population size. Regarding competitiveness, the costs of participating in elections are likely to fall short of the

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<sup>1</sup> In earlier studies of political participation, cultural variables were predominant (e.g. Almond and Verba 1963; Inglehart 1990; see for review Fornos, Power, and Garand 2004). Studies that included both, cultural and institutional effects, challenged the former and provided evidence for the predominance of the latter (inter alia Jackman and Miller 1995; Powell 1986).

benefits in cases where the potential voter thinks it likely that their vote will be decisive for the outcome (Matsusaka and Palda 1993, 856). An alternative line of argumentation points towards the parties and their mobilization potential. Especially in close elections, parties are interested to mobilize as many voters as possible in order to generate a better outcome (Franklin 2004, 24; Matsusaka and Palda 1993, 847; Pérez-Liñán 2001, 290). For democratic regimes the link between competitive elections and high turnout was found in a large number of studies (Matsusaka and Palda 1993; Geys 2006; Cancela and Geys 2016). This effect depends on the design of the electoral system (Blais 2006, 120). Stockemer (2015, 188) finds a significant interaction between closeness and district magnitude, concluding that with increasing district magnitude the effect of electoral closeness decreases. Therefore, the factors of the political process and institutions are not self-contained.

Although the subjective assessment of the electoral closeness happens before the election, it has become standard practice to use this *ex post* measure as a proxy for the voters *ex ante* expectations of the closeness and therefore the actual outcome (De Paola and Scoppa 2013; i Coma 2016; Geys 2006, 647). Several alternative *ex ante* approaches to competitiveness have been applied in previous research. For example, as a proxy for the closeness of the upcoming elections, measures of the closeness in previous elections are implemented. Matsusaka and Palada (1993, 867) find for Canadian elections that the *ex ante* and *ex post* measure yield essentially similar results. This, however, is only suitable in cases of quite stable party systems and voter preferences. In autocracies, party systems appear to be more instable (Schedler 2013, 90; Gandhi and Reuter 2013, 138). Furthermore, in the Canadian example the time span between the elections was less than a year. Considering the average length of election periods, this measure might be biased (De Paola and Scoppa 2013, 469). A similar approach but with a shorter period of time in between the elections is possible if there is a two-round system. The electoral closeness of the two leading candidates is applied as an estimate for the expected closeness in the second round of the election. This approach was used analyzing municipal elections in Italy (De Paola and Scoppa 2013), French legislative elections (Indridason 2008), and Hungarian general elections (Simonovits 2012). The results of these studies indicate the importance of the *ex ante* measurement and its superiority in comparison to *ex post* measurements. This approach however is limited to certain institutional frameworks and not suitable for cross-national analysis. Few studies use pre-electoral opinion polls as an indicator of closeness. These information do not necessarily ‘reflect the effective electoral choices’ (De Paola and Scoppa 2013, 469).

Although models composed of these components provide large explanatory power, there are well known exceptions. The United States and Switzerland tend to operate on a distinctively low level of turnout (Jackman and Miller 1995; Endersby and Krieckhaus 2008; Freitag 1996). The commonality between these cases is the exceptional high frequency of elections supporting ‘the voter fatigue argument’ (Jackman and Miller 1995, 483). Furthermore, the registration requirements in the USA are likely to cut turnout (Endersby and Krieckhaus 2008, 605).

Analyses of electoral turnout in autocracies focus either on explanatory variables particular to the autocratic regime, or apply from a neo-institutional perspective the model of turnout in democracies on autocracies. The former models focus on the effects of repression and clientelist networks (Lust-Okar 2009; Blaydes 2006; Gandhi and Lust-Okar 2009; Frye, Reuter, and Szakonyi 2017). Furthermore, non-voting is regarded as non-conformist behavior in autocracies with regard to the emphasized importance of high turnout (Roeder 1989). To my knowledge, these findings are solely based on case-studies and not analyzed cross-nationally.

The fundamental assumption of neo-institutional approaches towards nominally democratic institutions in autocracies is that these institutions have an effect despite the non-democratic context (Schedler 2009). Studies that incorporate autocracies in the sample find that effects of institutional variables are similar to the effects in democracies but weaker. However, there is some evidence for a reversed effect of competitiveness in autocracies (i Coma 2016, 58; Stockemer 2016b, 904). This indicates increased turnout in the case of larger gaps between the winner and runner up of the elections and therefore rejects the Downsian closeness hypothesis.

### **3. Operationalization, data sources, and descriptive statistics**

To test the effects of competitiveness on electoral turnout, a panel regression model using data of parliamentary elections between 1975 and 2012 will be estimated. The sample includes democracies and electoral autocracies. For the purpose of the paper electoral autocracies are defined as authoritarian regimes that hold nominally democratic elections.

To identify electoral autocracies and distinguish them from democratic elections and closed autocracies I firstly operationalize authoritarian regimes using the *Polity* dataset (Marshall, Gurr, and Jagers 2015). A regime is considered authoritarian if the Polity score lies in between -5 and 5 (Cheibub, Gandhi, and Vreeland 2010, 93). In the data set, these regimes are referred to as anocracies, regimes that combine democratic institutions with autocratic characteristics (Marshall, Gurr, and Jagers 2015). These grey zone regimes are part of the autocratic regime spectrum. As this combination is a prerequisite for the analysis of turnout, these regimes are of specific interest. To then identify autocracies, that hold nominally democratic elections, authoritarian regimes are filtered by multiparty elections. I operationalize nominally democratic elections using the *National Elections Across Democracy and Autocracy Dataset* (NELDA) (Hyde & Marinov 2012). In nominally democratic elections more than one party is legal, opposition was allowed and on the ballot, and there was a choice of candidates. Democracies as reference category are defined as regimes with a Polity score larger than 5.

Closed autocracies that hold nominally democratic elections, or authoritarian regimes, where elections can be considered acclamatory plebiscites, are not included in the sample. It is assumed that in these cases the mechanisms that generate turnout differ significantly from the ones in electoral autocracies

and democracies and rely less on institutional design and to a larger degree on repression and patronage mechanism.

### 3.1 Electoral Turnout

Measures of electoral turnout are based on the reported number of votes. Most common in cross-national studies is the measurement of turnout as share of the population within voting age (VAP) (Geys 2006, 639). Even though this data is available to a large extent, it can be biased due to immigration and emigration (Stockemer 2016a). Alternatively, the share of the registered voters can be used to determine turnout (RV). This measure takes legal suspension of the right to vote into consideration (Geys 2006, 639), but at the same time might overestimate the turnout if registration is not automatic (Stockemer 2016a).

Stockemer (2016a) proposes a measure of turnout as the share of voting eligible population (VEP), which is calculated using data on migration statistics. This approach, however, excludes other legal reasons for the suspension of the right to vote. Albeit this usually applies only to a very small share of the population, I will not use this measure for electoral turnout in autocracies. Systematic suspensions of the right to vote might be an authoritarian instrument to boost turnout figures and secure the outcome and therefore bias the VEP.

Acknowledging the differences between VAP and RV, models for each measure will be estimated. To measure electoral turnout I use data from IDEA (2016). Table 1 provides descriptive statistics of the differences of electoral turnout between the two regime types. Electoral turnout in autocracies is generally lower than in democracies. At the same time turnout values are broadly dispersed in autocracies. The difference between mean values of VAP and RV in democracies is quite small. In autocracies, however, there is a gap between VAP and RV of approximately 10 percentage points. Thus, providing evidence for either systematic suspensions of the right to vote or comparatively more complex registration procedures.

**Table 1:** Electoral Turnout in Democracies and Electoral Autocracies

	RV			VAP		
	Mean	SD	Obs.	Mean	SD	Obs.
Democracies	69.81	15.36	668	66.00	15.98	671
Electoral Autocracies	66.02	17.59	220	56.06	18.74	221
<b>TOTAL</b>	<b>68.87</b>	<b>16.02</b>	<b>888</b>	<b>65.21</b>	<b>17.24</b>	<b>892</b>

### 3.2 Competitiveness

As noted above, the common measurement for competitiveness is the closeness of elections. However, this approach is problematic for several reasons. Both, in democracies and autocracies, sudden events can change the outcome drastically and therefore introduce a bias in the estimations: ‘This poses serious endogeneity problems. For example, if, due to an unobservable factor, a positive shock affects votes obtained by one candidate, there will be an impact on turnout and the electoral margin, thus creating a correlation between the error term and the variable of interest. This will lead to biased coefficient estimates’ (De Paola and Scoppa 2013, 468).

In democracies, voter’s evaluation of electoral competitiveness is considered close enough to the actual outcome. In autocracies, voter’s evaluation of the competitiveness might be far from the outcome due to insufficient information and the uneven playing field. The uneven playing field refers to the biased competition in electoral autocracies, which favors the incumbent and their party systematically through the partisan usage of state institutions. Furthermore, opposition formation and activities are prevented, creating an unfair competition (Levitsky and Way 2010, 10). Especially for autocracies it is necessary to consider ex ante approaches towards competitiveness, because ‘if voter’s expectation of the closeness of the race is imperfect, then using the ex post measure will lead to an attenuation bias’ (Simonovits 2012, 369).

Considering the specific nature of nominally democratic elections in autocracies, closeness might not be suitable to measure competitiveness. Even though multiple parties do participate in the elections, this does not mean, that these parties are competing with each other. Measuring the closeness between the two leading parties does not measure competitiveness, if there is an autocratic mimicry of multipartism (Schedler 2013, 158; Hadenius and Teorell 2007). Therefore, a differentiation between government parties, or parties loyal to the incumbent and actual oppositional parties is essential. The variable *Government-Opposition Distance* refers to the gap between the vote share of the leading governmental party and the leading oppositional party. The affiliation to government and opposition as well as the vote shares are available in the DPI. As in some cases the vote share of the largest opposition party exceeds the vote share of the largest governmental party, the difference can be negative. To display competitiveness properly, absolute values are used.

Furthermore, I propose a measure for ex ante competitiveness aside from the electoral closeness that relies on the ex ante assessment of the electoral playing field. An election provides a level playing field if the chances of winning the elections are distributed equally. Therefore, these elections provide chances for electoral contestation and can be characterized as democratic (Helle 2016, 49). In contrast, multiparty elections in autocracies provide an uneven playing field with a systematic incumbent bias. Although, in democracies incumbent advantages can be observed, these are different from the systematic unfairness in autocratic election: ‘We consider the playing field uneven when (1) state institutions are widely



abused for partisan ends, (2) incumbents are systematically favored at the expense of the opposition, and (3) the opposition's ability to organize and compete in elections is seriously handicapped. Three aspects of an uneven playing field are of particular importance: access to resources, media, and the law' (Levitsky and Way 2010, 10). In democracies, the differences between the ex ante measure and the ex post measure are presumably small. I assume, however, that in autocracies the ex ante measurement is a more robust predictor of turnout than ex post measurements.

The variable *Uneven Playing Field* is a four-level cumulative index of variables with regard to the pre-electoral situation. The included components are binary variables taken from NELDA and include to pre-electoral concerns about free and fair elections (Nelda11), incumbent confidence for victory (Nelda12), and whether oppositional parties were prevented from competing in the elections (Nelda13). The internal consistency of the variables was tested using *Cronbach's alpha*, which is at 0.62. As this measure is sensitive to the number of items, it should be sufficient to construct the proposed index.

### 3.3 Institutional and Socio-economic Variables

Building on previous studies, a set of institutional and socio-economic variables is included in the models. As noted above, the effect of competitiveness is dependent on the design of the electoral system: 'Margin of victory is the logical indicator in plurality systems because the probability of casting a decisive vote is directly related to margin of victory. In a PR system, however, the outcome can sometimes be a foregone conclusion even if it is ,close' (Blais 2006, 120). Therefore, in systems where governments usually are formed of coalitions, the measurement of competitiveness might be more accurate using the gap between competing blocs, as depicted in the variable *Government-Opposition Distance*. In the case of grand or oversized coalitions this measure of competitiveness might appear vanishingly small. To account for these dependencies, the variable *Majority/Plurality* is included as a dummy variable for electoral system. Proportional and mixed electoral systems remain the reference category. The variable is taken from the DPI (housesys).

*Compulsory Voting* is assumed to increase electoral turnout. Usually, a dummy variable is used (Blais and Dobrzynska 1998; Endersby and Kriekhaus 2008; Freitag 1996). Due to 'considerable diversity in the compulsory voting systems' (The Electoral Commission 2006, 6), the positive effect of compulsory voting on turnout depends on its enforcement (Blais 2006, 113). One alternative is to distinguish in a dummy variable between absence of compulsory voting or its enforcement, and enforced compulsory voting (Stockemer 2015, 185). As both, the enforcement and the gravity of the penalties can vary, the measure still might be biased. Therefore, the construction of an index of compulsory voting appears reasonable (Fornos, Power, and Garand 2004, 920). To capture the effects of enforcement and sanctions, a 4-point scale will be used. All countries without compulsory voting are coded 0. Increasing values are attributed to the intensity of enforcement and sanctions. The variable is coded using data from IDEA (2016) and the Electoral Commission (2006).

Furthermore, the developmental status of a country as a socio-economic factor is assumed to be a strong determinant for electoral turnout. The variable *Per Capita GDP* is used as a proxy towards development. As the distribution of the GDP is skewed, the natural logarithm of the variable will be used. The data is acquired from the United Nations Statistics Division (UNSD 2017). Lastly, population size and year will be included. The variable *Population* is taken from IDEA (2016). Due to the skewness of the distribution, the natural logarithm will be applied. To control for time effects, the variable *Year* is included. 1975 is set zero, therefore the variable varies between 0 and 37.

### 3.4 Method

The effects of the presented variables will be tested in a panel regression model. To capture the specific effects of competitiveness in different electoral systems and in autocratic regimes interaction effects will be included. Countries with higher turnout in previous elections are likely to remain on a high level due to country specific effects. Regarding this cross-sectional correlation, robust estimation of standard errors is applied.<sup>2</sup>

For each of the proposed measures of competitiveness, a separate model will be estimated. Therefore, the generalized formula for the models can be depicted as follows<sup>3</sup>, where competitiveness stands for the three measures presented above. Each model will only include one of these measures.

$$\begin{aligned} Turnout_{it} = & \beta_0 + \beta_1 \text{Electoral Autocracy}_{it} + \beta_2 \text{Competitiveness}_{it} \\ & + \beta_3 \text{Compulsory Voting}_{it} + \beta_6 \text{Majority Plurality}_{it} \\ & + \beta_5 \log(\text{per Capita GDP})_{it} + \beta_6 \log(\text{Population})_{it} + \beta_7 \text{Year}_{it} \\ & + \beta_8 \text{Interaction Effects}_{it} + \mu_i + \varepsilon_{it} \end{aligned}$$

## 4. Results

Table 2 reports descriptive statistics for the proposed measures of competitiveness in democracies and electoral autocracies. In both regime types the electoral distance between government and opposition increases as the unevenness of the playing field increases. Not surprisingly, playing fields in democracies are less uneven than in electoral autocracies. The reported averages and the size of the increase indicate that despite same levels of unevenness the distance between government and opposition is on average much larger in autocracies than in democracies. This indicates a systematic difference in the ex ante assessment of competitiveness in comparison to the outcome.

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<sup>2</sup> The analysis is run using R 3.3.2 and specifically the package *plm* (Croissant and Millo 2008) and heteroscedasticity-consistent estimations of the standard errors using *vcovHC*.

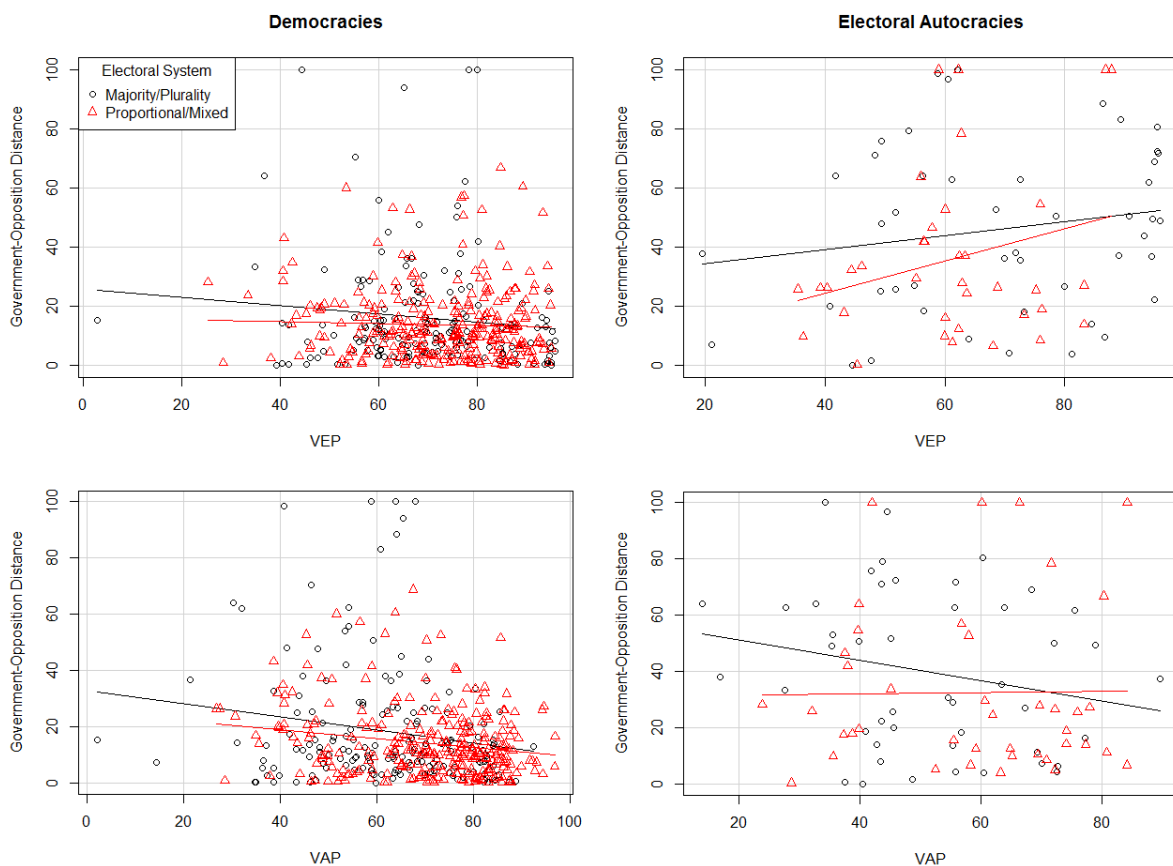
<sup>3</sup> The presented formula refers to the models presented in Table 4. The regressions presented in Table 3 are only for democracies (*Polity* > 5) and therefore do not include the effects of electoral autocracies and the relevant interactions.

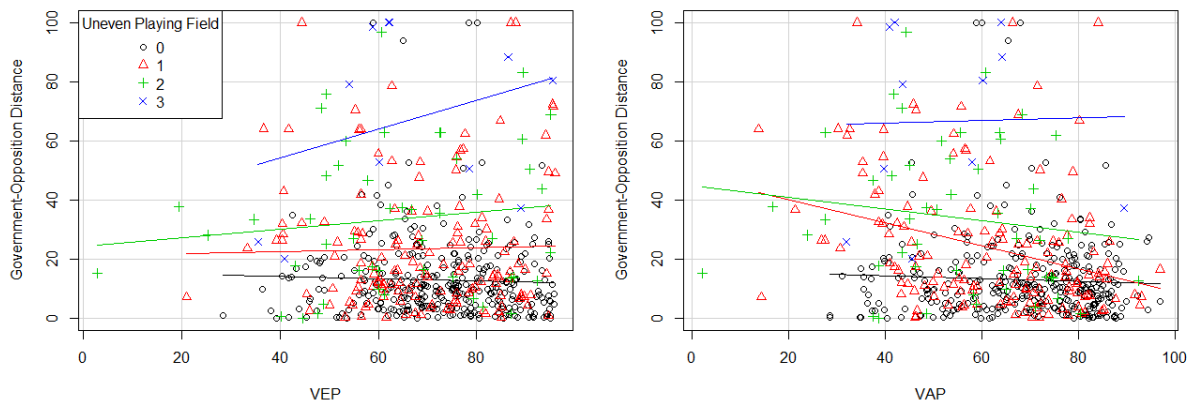
**Table 2:** Government-Opposition Distance and Uneven Playing Field

	Democracies			Autocracies		
	Mean	SD	Obs.	Mean	SD	Obs.
Uneven Playing Field = 0	12.64	13.03	328	29.18	13.13	15
Uneven Playing Field = 1	19.65	18.85	126	44.80	27.50	31
Uneven Playing Field = 2	23.81	18.42	21	40.76	27.40	33
Uneven Playing Field = 3	NA	NA	0	66.64	30.35	11
<b>TOTAL</b>	<b>15.30</b>	<b>15.89</b>	<b>506</b>	<b>44.44</b>	<b>30.68</b>	<b>102</b>

The dependencies between electoral system and ex post competitiveness are illustrated in Figure 1. The graphs show the distribution of electoral turnout in relation to the government-opposition distance in democracies and autocracies. Whereas in democracies the effects of majoritarian/plurality systems and other electoral systems are in the same direction and close together, in autocracies there appears to be larger differences. Furthermore, the slope of the effects differ in autocracies. Especially for the VAP the effects point in different directions. For the ex post operationalization these effects are similar in the complete sample as reported in Figure 2.

**Figure 1:** Turnout, Competitiveness and Electoral System



**Figure 2:** Uneven Playing Field and Turnout in Democracies and Autocracies

To test the general fit of the variables, these are firstly analyzed for elections in democracies. The results of these models are reported in Table 3. Both operationalizations of competitiveness show significant effects in the VAP model, but not in the RV model. The effect is negative, indicating that less competitive elections lead to a decrease in electoral turnout.

The interaction effect between the measures of competitiveness and electoral system are vanishingly small and remain insignificant. As depicted in Figure 1, this is not surprising for the democratic cases as the effect in for plurality/majority systems is similar to the effects in the reference group. Compulsory voting has a large and significant positive effect on electoral turnout in all models, whereas the effects of Year and Population are negative.

Taking a neo-institutional approach towards the nominally democratic institutions, the electoral autocracies are added to the models. Interaction effects are included to account for the different regime types. The results are reported in Table 4. In these models the effects of compulsory voting, year, and population remain largely robust. However, the interaction effects are predominantly insignificant, indicating either that there are no significant differences between the regime types, or that the tested effects are less meaningful in autocracies. The average lower share of explained variance of the observed variance in comparison to the models in Table 3 can be interpreted as evidence for the latter assumption. The interaction effects of electoral autocracy and compulsory voting indicate that the legal obligation to vote has a smaller effect in autocracies than in democracies. In model 11, this effect is even negative, indicating that compulsory voting decreases turnout.<sup>4</sup>

Concerning the effect of competitiveness, only the ex ante measures are significant and remain negative. However, as in previous studies, I find a positive effect in electoral autocracies, indicating that a skewed

<sup>4</sup> The robustness of this finding was checked using a binary operationalization of compulsory voting and confirmed.

playing field increases turnout. This finding either contradicts the assumptions of the rational voter, or indicates that the cost-benefit estimations in autocracies are different from the estimations in democracies.

The robustness of the results was checked using an alternative operationalization of electoral autocracies<sup>5</sup>. In these models, the found effects can be reproduced and are therefore largely robust.

**Table 3:** Electoral Turnout in Democracies (Polity > 5)

	<i>Dependent variable:</i>			
	RV		VAP	
	(1)	(2)	(3)	(4)
Government-Opposition Closeness	-0.024 (0.048)		-0.097** (0.047)	
Uneven Playing Field		-1.328 (0.847)		-2.128** (0.943)
Compulsory Voting	5.307*** (1.146)	5.992*** (1.340)	4.182*** (1.197)	4.787*** (1.314)
Log(per Capita GDP)	0.578 (0.801)	0.932 (0.852)	1.307 (0.886)	1.623* (0.879)
log(Population)	-1.532* (0.805)	-1.562* (0.806)	-1.008 (0.968)	-1.259 (0.882)
Plurality/Majority	0.798 (3.887)	2.203 (3.597)	-1.136 (3.627)	-0.123 (3.042)
Year	-0.346*** (0.062)	-0.362*** (0.061)	-0.362*** (0.067)	-0.370*** (0.067)
Interaction Gov-Opp Closeness* Plurality/Majority	0.017 (0.081)		0.065 (0.061)	
Interaction Uneven Playing Field*Plurality/Majority		-2.539 (1.693)		-0.699 (1.538)
Constant	95.324*** (12.169)	92.205*** (12.574)	78.920*** (15.951)	79.638*** (14.591)
Observations	489	567	492	570
Countries	88	95	88	95
Adjusted R <sup>2</sup>	0.378	0.360	0.293	0.301

*Note:*

Linear panel regression, random effects, robust coefficients  
Standard Errors in parentheses.

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

<sup>5</sup> The coding relies on a scheme presented by Lueders and Croissant (2014) and combines the identification of autocracies based on the GWF-data set (Geddes, Wright, and Frantz 2014) with the condition, that the elections are competitive. This condition is coded using the legislative index of competitiveness (LIEC=7) from the DPI. And indicates that multiple parties won seats in the elections, but the winning party did not receive more than 75% of the seats, therefore eliminating hegemonic autocracies.

**Table 4:** Electoral Turnout in Democracies and Electoral Autocracies

	<i>Dependent variable:</i>							
	RV				VAP			
	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Electoral Autocracy	-0.693 (2.417)	0.385 (2.135)	-3.861 (25.539)	0.894 (22.953)	-4.803* (2.591)	-2.555 (2.247)	-4.799 (27.439)	2.185 (23.754)
Government-Opposition Distance	0.072 (0.046)		0.030 (0.048)		0.014 (0.043)		-0.035 (0.044)	
Uneven Playing Field		-0.565 (0.744)		-1.946** (0.857)		-0.865 (0.729)		-2.269** (0.901)
Compulsory Voting	5.338*** (0.971)	5.176*** (1.134)	5.617*** (1.050)	5.906*** (1.245)	3.100** (1.253)	3.228*** (1.220)	4.287*** (1.143)	3.921*** (1.200)
Log(GDP)	0.830 (0.781)	0.493 (0.780)	0.650 (0.798)	0.711 (0.851)	1.361 (0.939)	1.184 (0.859)	1.262 (0.880)	1.484* (0.843)
log(Population)	-1.797*** (0.672)	-1.680** (0.716)	-1.833** (0.829)	-1.858** (0.849)	-0.865 (0.838)	-1.126 (0.784)	-1.180 (0.949)	-1.403 (0.893)
Plurality/Majority	2.740 (3.181)	1.208 (2.536)	2.978 (3.466)	2.472 (3.026)	-0.576 (3.178)	-0.779 (2.528)	1.033 (3.194)	1.297 (2.728)
Year	-0.371*** (0.068)	-0.320*** (0.064)	-0.350*** (0.060)	-0.348*** (0.059)	-0.399*** (0.077)	-0.336*** (0.069)	-0.358*** (0.066)	-0.364*** (0.064)
Interaction Electoral Autocracy*Gov-Opp Distance			0.078 (0.079)				0.041 (0.075)	
Interaction Electoral Autocracy*Uneven Playing Field				4.587*** (1.565)				3.527** (1.485)
Interaction Electoral Autocracy*Compulsory Voting			-3.326* (1.979)	-3.795** (1.567)			-8.122** (3.219)	-2.649 (1.934)
Interaction Electoral Autocracy*log(GDP)			1.201 (2.120)	-0.311 (1.811)			1.105 (2.161)	-0.739 (1.860)
Interaction Electoral Autocracy*log(Population)			-0.057 (1.243)	-0.163 (1.364)			0.511 (1.353)	0.019 (1.324)
Interaction Electoral Autocracy*Plurality/Majority			-0.525 (5.358)	-0.267 (4.166)			-6.746 (5.311)	-5.484 (3.917)
Interaction Electoral Autocracy*Year			-0.229 (0.269)	0.067 (0.195)			-0.456* (0.243)	0.059 (0.212)
Interaction Gov-Opp Distance* Plurality/Majority	-0.080 (0.064)		-0.080 (0.066)		-0.059 (0.057)		-0.035 (0.057)	
Interaction Uneven Playing Field* Plurality/Majority		-0.391 (1.363)		-1.215 (1.348)		-0.460 (1.223)		-0.448 (1.239)
Constant	96.471*** (10.700)	96.684*** (11.622)	98.549*** (12.647)	98.240*** (13.050)	76.121*** (14.433)	80.259*** (13.929)	80.631*** (15.925)	82.193*** (14.798)
Observations	585	724	585	724	589	729	589	729
Countries	110	130	110	130	110	130	110	130
Adjusted R2	0.369	0.308	0.370	0.323	0.275	0.228	0.297	0.239

*Note:*

Linear panel regression, random effects, robust coefficients

Standard Errors in parentheses.

\*p&lt;0.1; \*\*p&lt;0.05; \*\*\*p&lt;0.01

The positive effect of the uneven playing field on the turnout in autocracies remains puzzling. Figure 1 and Figure 2 indicate that outlying cases might be influential for the estimated effects. Firstly, these are cases with large distances between government and opposition and turnout rates above average shown in the top-left corner of the figures.

**Table 5:** Descriptive Statistics of Cases with high turnout despite large Government-Opposition Distance

Country	Year	Regime	RV	VAP	Gov-Opp Distance	Uneven Playing Field	Compulsory Voting
Angola	1992	Electoral Autocracy	86.91	84.16	100	1	no
Mozambique	1994	Electoral Autocracy	87.89	66.38	100	1	no
Malawi	1994	Democracy	80.03	67.94	100	0	no
Tunisia	1994	Electoral Autocracy	95.47	60.26	80.48	3	no
Tunisia	2004	Electoral Autocracy	86.41	64.20	88.40	3	no
Tunisia	2009	Electoral Autocracy	89.40	60.87	83.00	2	no

Table 5 reports the descriptive statistics of these cases and indicates that these cases share a set of commonalities. All cases are African countries without regulations for compulsory voting. Despite large government-opposition distance, the cases have different levels of unevenness of the playing field. While in the Tunisian cases the ex ante expectations of the uneven playing field match the ex post results, in Angola, Mozambique and Malawi there seemed to be misconceptions in the ex ante estimation of the competitiveness.

Furthermore, in most of these cases a large difference between RV and VAP is reported. In cases of large migrant stocks the difference of VAP and RV can be explained as a result of the share of foreign population. Although further groups, such as prisoners, are commonly suspended from the right to vote, these groups make up a much smaller share of the population (Stockemer 2016a). However, all four countries had in the reported years international migrant stocks of less than two percent (United Nations Department of Economic and Social Affairs 2015). I assume that either complex registration procedures are in place, or that there is a systematic exclusion from the right to vote in order to secure the survival of the incumbent or ruling party.<sup>6</sup> Lastly, I found that in all cases presidential and parliamentary elections were in these cases held on the same day. Concurrent elections can boost turnout (e.g. Fornos, Power, and Garand 2004). In the case of concurrent elections, the costs remain the same as when participating in one election. At the same time the voter accumulates the possible benefits of two elections.

<sup>6</sup> Furthermore, in the Angolan case the civil war complicated the estimations of accurate population data (Clemente-Kersten 1999). Citizens of Mozambique living outside the country did have the right to vote, but there were no registration procedures or voting outside of the country in 1992 (Krennerich 1999).

## 5. Conclusion

In democracies, electoral turnout is largely determined by socio-economic, institutional and political factors. Academic research on electoral turnout in nominally democratic elections in autocracies is still in its infancy. This paper was motivated by skepticism concerning the applicability of common measures of competitiveness in these elections.

I find strong evidence for the superiority of ex ante measures of competitiveness in comparison to ex post measures not only in autocracies but also in democracies. As in previous studies, the effect of competitiveness in electoral autocracies is positive, indicating that turnout increases when elections are considered less competitive. Although the estimated effect remains small in comparison to democracies, it remains puzzling why less competitive elections in autocracies seem to increase turnout. It indicates deviations in the cost-benefit calculations in these regimes. These could stem from specific characteristics of the autocratic regime. Analyzing outlying cases, I found that concurrent elections and possibly systematic exclusion from the right to vote could be explanatory for high turnout despite non-competitive races. These factors merit further research.

In general, the models that explain turnout in democracies, can explain turnout in autocracies only to a lesser extent. This lends further support to the importance of specific autocratic characteristics. The models do for example not control for electoral fraud and specific mobilization strategies. The expectation of fraud may influence the cost benefit estimations of electors in both directions (Vorobyev 2016, 884). According to Linz (2003, 7) a central aspect of authoritarian regimes is either the demobilization or the controlled mobilization. Despite incumbent advantage there might be systematic demobilization of oppositional parties and/or mobilization for the incumbent party.



## 6. Appendix

**Table 6:** List of Variables and Sources

Variable	Description
<i>RV</i>	Electoral turnout measured as the percentage of registered voters that cast a ballot. Source: IDEA (2016)
<i>VAP</i>	Electoral turnout measured as the percentage of voting age population that cast a ballot. Source: IDEA (2016)
<i>Electoral Autocracy</i>	Dummy variable: 0 = no electoral autocracy (Reference category= democracies) 1 = electoral autocracy Electoral autocracies are coded based on two conditions: the regime needs to be identified as authoritarian regime that holds nominally democratic elections. <i>Authoritarian regimes:</i> Polity between -5 and 5. <i>Nominally democratic elections:</i> 'Was opposition allowed?' (Nelda3=yes) 'Was more than one party legal?' (Nelda4=yes) 'Was there a choice of candidates on the ballot?' (Nelda5=yes) Data: Hyde and Marinov (2012), Marshall, Gurr, and Jagers (2015)
<i>Electoral Autocracy (Robustness Check)</i>	For the checking the robustness of the results, a coding based on Lueders and Croissant (2014) is applied. 0 = no electoral autocracy (Reference category= democracies) 1 = electoral autocracy <i>Authoritarian regimes:</i> gwf_regimetype indicates type of autocracy <i>Nominally democratic elections:</i> DPI Legislative Index of Electoral competitiveness (LIEC) = 7 This measure indicates that multiple parties won seats in the elections, but the winning party did not receive more than 75% of the seats, therefore eliminating hegemonic autocracies. Data: Geddes, Wright, and Frantz (2014), Keefer (2012)
<i>Government-Opposition Distance</i>	Gap between the vote shares of the largest governmental party and largest oppositional party, calculated based on the DPI (GOV1VOTE, OPPIVOTE) As in some cases the vote share of the largest oppositional party exceeds the vote share of the largest governmental party indicated, the variable can take negative values. To display competitiveness properly, absolute values of the indicator are used. Data: Keefer (2012)
<i>Uneven Playing Field</i>	Ex ante indicator for competitiveness of the elections. Four-level cumulative index, constructed using data from NELDA. 'Before elections, are there significant concerns that elections will not be free and fair?' (Nelda11) 'Was the incumbent or ruling party confident of victory before elections?' (Nelda12) 'Were opposition leaders prevented from running?' (Nelda13) Data: Hyde and Marinov (2012)
<i>Majority_Plurality</i>	Dummy variable: 0 = no plurality or majority electoral system (Reference category = Proportional and mixed) 1 = majority/plurality electoral system The variable is coded based on the variable 'housesys' from the DPI. Source: Keefer (2012)
<i>Compulsory Voting</i>	Four level index of compulsory voting: 0 = no compulsory voting 1 = compulsory voting laws without enforcement or penalties 2 = compulsory voting laws with (very) moderate penalties 3 = compulsory voting laws with (very) strict penalties Data: IDEA (2016), The Electoral Commission (2006)
<i>Log(GDP)</i>	Natural logarithm of the per capita gross domestic product at current prices in US-Dollars Source: UNSD (2017)
<i>Log(Population)</i>	Natural logarithm of the size of the population Source: IDEA (2016)
<i>Year</i>	Year of the election. 1975 set zero.

## 7. Literature

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