

# How does oil affect electoral competition in multiparty elections?

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#### **Abstract**

This paper investigates the impact of oil on electoral competitiveness in multiparty autocracies, with a particular focus on non-democratic political systems. Combining insights from the literature on the rentier state and the study of multiparty autocracy, I examine how oil production influences elections in these contexts. I posit that the significant and opaque government revenue generated by oil production undermines electoral competitiveness in multiparty autocracies. The analysis draws on a comprehensive dataset covering all multiparty elections worldwide from 1975 to 2010. The findings support my hypothesis, revealing a strong negative association between oil and electoral competitiveness in multiparty autocracies. Conversely, the influence of oil on electoral dynamics in democratic settings appears to be negligible. This study contributes to the literature on democratization through elections by shedding light on the role of economic structures in shaping electoral outcomes. It underscores the challenges faced by multiparty autocracies in their pursuit of liberalization and emphasizes the importance of further exploration into the interplay between natural resources, political systems, and the democratic process.

### Keywords

Oil, Electoral Competitiveness, Multiparty, Autocracy, Democracy

## Wie wirkt sich Öl auf den Wahlkampf bei Mehrparteienwahlen aus?

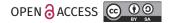
#### Zusammenfassung

In diesem Paper wird die Auswirkung von Öl auf die Wahlwettbewerbsfähigkeit in Mehrparteien-Autokratien untersucht, wobei der Schwerpunkt auf undemokratischen politischen Systemen liegt. Durch die Verbindung von Erkenntnissen aus der Literatur über den Rentierstaat und der Untersuchung von Mehrparteien-Autokratien wird untersucht, wie die Ölproduktion Wahlen in diesen Kontexten beeinflusst. Es wird die Hypothese aufgestellt, dass die bedeutenden und undurchsichtigen Einnahmen der Regierung aus der Ölproduktion die Wahlwettbewerbsfähigkeit in Mehrparteien-Autokratien untergraben. Die Analyse stützt sich auf einen umfassenden Datensatz, der alle Mehrparteienwahlen weltweit von 1975 bis 2010 abdeckt. Die Ergebnisse unterstützen meine Hypothese und zeigen eine starke negative Verbindung zwischen Öl und der Wahlwettbewerbsfähigkeit in Mehrparteien-Autokratien auf. Im Gegensatz dazu scheint der Einfluss von Öl auf die Wahldynamik in demokratischen Systemen vernachlässigbar zu sein. Diese Studie trägt zur Literatur über Demokratisierung durch Wahlen bei, indem sie Licht auf die Rolle von Wirtschaftsstrukturen bei der Gestaltung von Wahlergebnissen wirft. Sie betont die Herausforderungen, denen sich Mehrparteien-Autokratien bei ihrer Streben nach Liberalisierung gegenübersehen, und hebt die Bedeutung weiterer Untersuchungen zur Wechselwirkung zwischen natürlichen Ressourcen, politischen Systemen und dem demokratischen Prozess hervor.

#### Schlüsselwörter

Öl, Wahlwettbewerbsfähigkeit, Mehrparteien, Autokratie, Demokratie

The author has declared that no competing interests exist.



#### Introduction

Oil production hinders democracy, which is a widely recognized and well-supported thesis in the field of comparative politics (Ross 2001; Jensen/ Wantchekon 2004; Smith 2004; Ulfelder 2007; Ross 2012). However, while there has been extensive research on the stabilizing impact of oil on autocratic regimes, little attention has been given to the institutional shift that profoundly transformed global authoritarianism during the third wave of democracy (Levitsky / Way 2010). Presently, most autocracies hold elections (Hadenius / Teorell 2007). Even in deeply entrenched autocracies, multiparty elections can lead to regime instability and create opportunities for political contestation (Bunce / Wolchik 2011). However, the literature on rentier states has not extensively examined the implications of multipartyism for regime stability in oil-producing autocracies. This paper contributes to this debate by exploring the impact of oil production on elections in multiparty autocracies.

Elections in multiparty autocracies are characterized by being free, but unfair. Incumbent parties possess various tools to manipulate elections and counter the challenges posed by opposition parties during the electoral process. However, according to numerous authors focusing on the political economy of multiparty autocracies, the primary reason why authoritarian incumbent parties rarely lose their power is the superior economic resources associated with their incumbency (Magaloni 2006; Greene 2007; Levitsky / Way 2010; Arriola 2013; Seeberg 2017). Resource asymmetries, where incumbents possess significant advantages compared to their opposition counterparts, allow authoritarian regimes to maintain the cohesion of the ruling elite and expand clientelistic networks, thereby creating a heavily skewed playing field. In multiparty incumbent parties typically autocracies, control over larger resources compared to opposition challengers. However, I argue that such asymmetries are greatly magnified by oil revenue.

Since the global wave of oil nationalization in the 1970s, oil revenues have become highly concentrated in the hands of national governments. In many developing economies where oil serves as a primary export commodity, the overall economy has become heavily reliant on the state (Luong / Weinthal 2006; Ross 2012). In the context of multiparty autocracies, the oil economy not only enhances the incumbent party's access to state resources but also limits the opposition's access to alternative resource streams. Established democracies that underwent democratization before the discovery of oil or prior to the wave of oil nationalization in the 1970s have generally implemented robust checks and balances and effective bureaucratic systems to prevent

oil revenues from being used for partisan purposes (Juel-Andersen / Ross 2014). However, in many newly established electoral regimes where the oil economy predates democratic institutions, oil revenues have created a steady and non-tax-based income stream with limited public oversight. Consequently, I argue that the political economy of oil production in multiparty autocracies provides significant electoral advantages to the incumbent party while reducing electoral competition.

In this paper, I present a cross-sectional timeseries analysis covering the period from 1975 to 2010, examining turnover and government-party support in executive elections (presidential or parliamentary) worldwide. My main aim is to investigate the effect of oil income on electoral competitiveness. The results of my analysis reveal a significant and strongly negative impact of oil revenues on electoral competition in multiparty autocracies. Autocratic incumbent parties that have access to oil income are much less likely to lose power and receive significantly higher levels of support compared to incumbent parties in regimes without oil income. The strikingly low predicted probability of regime turnover in multiparty autocracies with substantial oil production suggests that elites in such regimes have little reason to fear electoral competition. In fact, regime turnovers under such circumstances remain remarkably unlikely.

These findings carry significant implications for the resource curse literature as well as the broader body of research on multiparty autocracy and the dynamics of elections and democratization. They suggest that democratization through elections (Lindberg 2006) is highly unlikely under specific economic conditions. While previous studies have indicated that state-centric economies tend to dampen electoral competition in multiparty autocracies, they have also highlighted the potential for economic liberalization to erode incumbent advantages over time (Magaloni 2006; Greene 2007; Arriola 2013). However, in economies heavily reliant on oil revenue, substantial short- or medium-term economic transformations are unlikely to occur, thus perpetuating an environment of limited electoral competitiveness.

The findings of this study align with the insights presented in a recent work by Miller (2020). Miller argues that contested elections in Electoral Authoritarian (EA) regimes can pose a threat to the ruling elites if they fail to effectively control the electoral process. Notably, approximately 20 percent of national elections in EA regimes have resulted in the incumbent executive leaving office. This suggests that even in heavily manipulated elections, there remains a genuine risk for autocrats. Consequently, autocratic leaders are likely to embrace contested elections only when they are confident in their ability to secure victory reliably. As demonstrated

in this paper, oil production can serve as a crucial tool for autocrats in controlling the electoral dynamics by employing clientelism and state assistance to co-opt the masses. Building on Miller's argument that "the net advantage of elections for autocrats is contingent on their likelihood of maintaining electoral control" (Miller 2020, 20), this study implies that petroleum resources can be a significant source of electoral control for autocratic regimes.

## Oil and Electoral Competition

A substantial body of research has consistently indicated that oil production hampers the potential for democratization (Madhavy 1970; Ross 2001; Ross 2012; Wright et al. 2015). Moreover, subsequent studies have revealed that the detrimental impact of oil production on democracy has been particularly notable since the global wave of oil nationalization in the 1970s (Herb 2005; Haber / Menaldo 2011; Ross 2012).

Ross' (2012) argument on the negative impact of oil on democracy has gained support from various cross-country studies. Jensen and Wantchekon (2004) discovered a strong negative correlation between oil dependence and levels of democracy in 46 African states. Smith (2004) approached the topic differently by examining regime durability as the dependent variable instead of the level of democracy. Smith's findings revealed a robust association between oil wealth and increased regime stability, which aligns with Ross' argument. Ulfelder (2007) also contributed to this line of research by demonstrating that autocratic governments tend to be more durable in resource-rich countries, further reinforcing Ross' argument. Additionally, Cassidy (2019) conducted a recent study exploring the long-term impact of oil wealth on economic and political development. The findings suggest a longlasting negative effect of oil discovery on democracy.

Furthermore, scholars have emphasized the heterogeneity of the association between oil production and democracy across different political and economic contexts. Bhavnani and Lupu (2016) provide insights from the case of Brazil, revealing that the impact of natural-resource revenues on democracy is contingent upon the quality of institutions. They argue that the negative effect of oil resources on democratic outcomes is particularly evident in countries with weak institutions. In line with economic-forms theory, Aytac et al. (2016) contribute to this discussion by demonstrating that resource dependence has detrimental effects on democracy primarily in nations with clientelist or patronage-based economies. However, they find that the resource curse is avoided in nations with contract-intensive economies.

Bergougui and Murshed (2020) indeed indicate that there is strong evidence for a political resource curse if pre-existing institutions that promote democracy are not taken into account. Their findings align with the observation that this phenomenon holds true in the full sample of both oil abundant countries and nations with economies dependent on oil for generating national income. However, when the sample is further disaggregated into small and large oil endowments, the statistical significance of these results diminishes, including for Latin America. Nevertheless, the political resource curse remains statistically significant for oil-dependent economies in the Middle East and North Africa, indicating a distinct relationship in this particular region.

However, much of the existing literature on oil and democracy has largely disregarded the evolving nature of authoritarianism in the late twentieth century. Unlike earlier authoritarian regimes that lacked formal institutional space for opposition, this paper focuses on authoritarian regimes that emerged after 1990, that can be primarily characterized as multiparty autocracies (Hadenius / Teorell 2007). These multiparty autocracies arrange elections to fill essential national political positions (Lührmann et al., 2018). This term signifies a scenario where a country's laws or constitutional provisions permit the presence of multiple political parties and the conduct of elections for critical roles like the chief executive (such as the president) and the legislative body (such as parliament or congress). However, the pivotal concern is that these elections might lack genuine freedom and fairness in practice.

Although these elections are typically neither free nor fair, they do provide some opportunity for opposition parties to participate, thereby allowing for a minimum level of political competition. The question then arises: How does oil production influence the level of competition in such elections? Can oil resources be exploited to reduce electoral uncertainty to the extent that multiparty elections become virtually inconsequential for the survival prospects of leaders in multiparty autocracies?

My argument posits that within multiparty autocracies, oil production creates substantial resource asymmetries between incumbent parties and the opposition, potentially more so than any other economic activity. In oil-dependent economies, there is often a strong focus on the state, and the revenue generated from oil provides ample resources for the ruling regimes while limiting alternative resource avenues for the opposition. As a result, incumbent parties in oil-dependent economies enjoy significant electoral advantages stemming from their access to abundant resources, thereby further solidifying their grip on power.

Since the restructuring of the global oil industry in the 1970s, with national governments taking control of oil resources (Juel-Andersen / Ross2014), oil revenues have been channeled directly into the state coffers of oil-producing countries. This shift in control has led to a significant increase in the share of oil profits captured by governments, as demonstrated by Mommer's (2002) research, showing a rise from 50% in the early 1960s to 98% by 1974. Oil has emerged as a crucial resource for stabilizing regimes in oil-producing states, particularly due to the non-transparent nature of these revenues. This lack of transparency allows elites to exercise a high degree of discretion in using oil income to maintain and expand clientelistic networks, while also co-opting potential opposition elites (Ross 2012). Additionally, oil production in the developing world often results in an expansion of the state, creating an economy highly dependent on oil income and government expenditure<sup>1</sup>.

Enhanced regime co-opt capacity represents one aspect of the resource asymmetry between incumbents and opposition parties in oil-producing economies within multiparty autocracies. Additionally, oil production contributes to an expansion of the state while reducing the resources accessible to the opposition. This phenomenon is commonly referred to as the "Dutch Disease," where the presence of natural resource wealth leads to a decline in other sectors such as agriculture and manufacturing (Matsen / Torvik, 2005). As a result, the opposition has limited alternative resource streams, apart from the government-controlled oil industry, available for financing their campaigns. The combination of regime co-optation and reduced resource availability for the opposition exacerbates the electoral advantages enjoyed by incumbent parties in oil-dependent economies.

The argument presented here builds upon a substantial body of literature on the political economy of multiparty autocracy. While incumbents generally enjoy greater resources, particularly in multiparty autocracies, highly state-centric economies perpetuate significant resource asymmetries between incumbents and the opposition, resulting in what Greene (2007) refers to as "hyper incumbent advantages." In the context of Mexican elections, both Magaloni (2006) and Greene (2007) have argued that the privatization of the Mexican economy played a pivotal role in undermining the long-standing dominance of the Institutional Revolutionary Party (PRI). By relinquishing control over the economy to autonomous business elites, alternative resource channels became accessible for potential counter-elites, contributing to increased competition. Examining coalition building, Arriola (2013) highlights the detrimental impact of state-centric economies in Africa, where limited access to private credit hampers the formation of strong and unified opposition movements. Conversely, access to private credit empowers potential opposition challengers to build cohesive alliances by incentivizing rival opposition politicians. Furthermore, Seeberg (2017) establishes a robust relationship between government economic control and authoritarian electoral performance. These studies collectively underscore the role of economic factors, such as statecentric economies and access to alternative resources, in shaping electoral dynamics and competition in multiparty autocracies.

Gandhi and Przeworski (2007) put forth the argument that oil income can potentially stabilize authoritarian regimes to such a degree that the creation of legislative assemblies and pseudodemocratic institutions becomes unnecessary for maintaining authoritarian rule. However, when effectively leveraged, oil resources can significantly reduce electoral competition in multiparty autocracies, leading incumbent regimes to perceive minimal risks in opening up the electoral arena.

Various case studies from diverse contexts have provided evidence of how oil income has been effectively utilized to bolster incumbent regimes, suppress substantial electoral challenges, and co-opt potential opposition contenders.

In Nigeria, for instance, oil resources played a pivotal role in expanding the support base of the longstanding People's Democratic Party (PDP) beyond its original stronghold in the Southern region. Through the use of oil income, the PDP successfully co-opted local political elites, ensuring a broader multi-ethnic support network (Levan 2014). In Angola, the opaque nature of oil revenues has facilitated the fusion of economic and political elites, with all of the country's seven wealthiest individuals reportedly holding positions within the government, including President José Eduardo Dos Santos. This situation has made genuine political competition highly unlikely (McMillan 2005). The Russian case under President Putin similarly illustrates how government controlled oil, coupled with weak property rights, has resulted in the emergence of an economic elite heavily reliant on the government (Fish 2005). While formal institutions allow Russian economic elites to engage in opposition politics, challenging the incumbent regime in elections entails significant economic consequences.

Likewise, income derived from Mexican stateowned oil companies was utilized during the lengthy rule of the Institutional Revolutionary Party (PRI) to secure loyalty through overemployment and generous compensation for party supporters (Monaldi 2008). These examples demonstrate the instrumental role of oil income in consolidating the power of incumbent

I According to Ross' (2012,5) estimation, oil-producing governments are almost 50% larger than non oil-producing governments.

regimes, mitigating electoral challenges, and fostering clientelistic relationships in multiparty autocracies.

Based on the arguments presented, I hypothesize that oil income will have a detrimental impact on electoral competition in multiparty autocracies, primarily due to the reinforcement of incumbent advantages and the weakening of opposition forces. The concentration of resources within the state, coupled with the non-transparent nature of oil revenues in authoritarian states and the adverse effects of the oil industry on other economic sectors, are expected to contribute to this negative effect. However, I anticipate that this impact on electoral competitiveness will be predominantly observed in multiparty autocracies and may not be as evident in democratic regimes.

In many oil-producing democracies, democratic institutions were established prior to the wave of oil nationalization in the 1970s, whereas in most multiparty autocracies, nationalized oil production preceded the development of democratic institutions. The implementation of effective checks and balances to restrict the utilization of oil resources for political campaign purposes can mitigate the consequences of oil income on electoral outcomes. While occasional instances of pork-barrel politics and clientelism have been observed in established democracies utilizing oil income, the scale of such practices is generally more limited compared to multiparty autocracies.

Moreover, comparative studies between older democracies and newer democracies, many of which fall under the category of multiparty authoritarian regimes, have demonstrated higher levels of corruption, weaker bureaucracies, reduced rule of law, and increased clientelism in the latter (Keefer 2007). The combination of weak checks and balances and substantial government resource streams is likely to have a negative impact on the level of electoral competition. Based on the above discussion, I propose the following hypothesis: Oil resources diminish electoral competitiveness in multiparty autocracies while having minimal impact in multiparty democracies.

#### **Data and Variables**

The increasing prevalence of elections in dictatorial regimes has prompted scholars to identify a new type of dictatorship known as "electoral authoritarianism" (Schedler 2006). Electoral authoritarian regimes engage in the facade of holding elections and allowing some level of interparty competition and pluralism. However, these regimes systematically and severely violate essential democratic norms, thereby precluding their classification as genuine democracies (Schedler 2006). The degree of competition permitted in electoral

authoritarian regimes varies across countries (Diamond 2002). In some nations, the ruling party consistently secures overwhelming majorities, leaving no room for meaningful contestation. These regimes are commonly referred to as hegemonic electoral regimes. In contrast, other countries witness more genuine competition, with opposition parties able to attain significant minority shares during elections. These regimes are often labeled as competitive authoritarian regimes (Levitsky and Way 2002).

The existing literature on "electoral authoritarianism" acknowledges the significance of electoral competition as a key factor in understanding the variation among authoritarian regimes. However, for the purposes of this research, focusing on the degree of electoral competition as a defining feature of a particular authoritarian regime is not ideal, as it is considered an outcome variable in the analysis. Similarly, Clark et al. (2018) argue that the level of electoral competition is primarily determined by the strategic interaction between dictators and opposition forces. Therefore, it is more appropriate to view the degree of electoral competition as a variable that varies both within and across different regime types rather than a defining characteristic of a specific authoritarian regime (Clark et al. 2018, 375).

Continuing along this line of reasoning, I employ the term 'multiparty autocracies' to describe systems that conduct elections to fill the highest national political positions. Despite these elections lacking fairness and freedom, they do permit opposition parties to participate and thus facilitate a minimal degree of political competition. Conversely, politically closed authoritarian regimes wherein "no opposition party is granted a legal space in the political arena" (Clark et al. 2018) are omitted from the analyses. This approach is rooted in a purely procedural, or minimalist, interpretation of democracy and autocracy (Clark et al. 2018), as the classification criteria do not consider the substantive outcomes produced by distinct regime types. Instead, the focus rests solely on their institutions and procedures.

All in all, the sample for this study includes all executive elections held in multiparty regimes, encompassing both multiparty autocracies and democracies, from 1975 to 2010. Again, in these regimes, the key characteristic is the organization of multiparty elections for the highest political office, with some level of opposition participation permitted. The information regarding elections was obtained from the Database of Political Institutions (DPI). For the purpose of this analysis, the focus is solely on executive elections, including parliamentary elections in parliamentary systems and presidential elections in presidential systems. The dataset used for the analysis consists of a maximum of 518 multiparty elections conducted in 111 countries.

## Dependent variables

In the analysis, I employ both continuous and dichotomous variables to assess electoral competitiveness. For the continuous measure, first, I examine the national vote share obtained by the incumbent party or president in the executive elections. A higher vote share for the incumbent is indicative of lower electoral competitiveness. This methodology shares similarities with the approach used by Greene (2010), although there may be minor variations. Greene's research primarily concentrates on authoritarian single-party dominance and measures the margin of victory of the dominant party over its closest competitor.

Indeed, utilizing the incumbent's vote share as a measure of electoral competitiveness has certain advantages. It takes into account the overall level of support received by the incumbent party or president, which can be influenced by a range of factors including the strength and unity of the opposition. By focusing on the incumbent's vote share, we can gauge the extent to which the opposition is able to challenge and garner support from the electorate. This measure acknowledges that even in situations where there might be significant competition, internal divisions and fragmentation within the opposition could hinder their ability to effectively capitalize on it, potentially resulting in a larger margin of victory for the incumbent.

Second, I also employ the measure of electoral success for smaller parties, which captures the percentage of votes gained by these parties. This approach, as outlined by Vanhanen (2019), allows us to assess the electoral performance and impact of smaller parties in multiparty regimes, and thus, provides valuable insight into the level of competition and the presence of viable alternative options for voters. By subtracting the percentage of votes won by the largest party or the successful presidential candidate from 100, the measure accounts for the relative strength and support of smaller parties.

The dichotomous operationalization of electoral turnover, which determines whether a change in power occurred during the elections, provides a straightforward and comparable measure of electoral competitiveness across different political systems. This binary measure allows us to examine the occurrence of power shifts and assess the degree of electoral competition in terms of the ability of opposition parties to successfully challenge and replace the incumbent party or president. The coding of turnover in presidential elections, where the incumbent president is voted out of power, and in cases where the incumbent president does not seek re-election but the candidate representing the president's party is defeated, ensures that we capture instances of change in power at the highest executive level.

In parliamentary elections, the coding of turnover based on whether the prime minister's party fails to be part of the government coalition provides an indicator of electoral competitiveness. When the ruling party or coalition is unable to maintain its position in the government following the election, it signifies a significant shift in power and a competitive electoral outcome.

## **Explanatory variables**

In this study, I measure the economic dependence on oil using the ratio of oil income to GDP. The data for this variable is obtained from Ross (2012). It represents the value of a country's oil production, adjusted to constant year-2000 US dollars, divided by the country's total GDP. This measurement assesses the extent to which a country's economy relies on oil as a source of income.

I chose to use the ratio of oil income to GDP as the operationalization of economic dependence on oil for several reasons. First, it provides a comprehensive assessment of the economic significance of oil within a country, taking into account both the value of oil production and the overall size of the economy. Second, using this measure captures the relative importance of oil income in relation to other economic sectors and activities.

By using the total value of oil production in relation to GDP, I avoid potential biases that could arise from alternative operationalizations. For example, measuring oil income per capita would primarily reflect the wealth of the country or government, without considering other revenue streams that may be available to the opposition. Similarly, relying on oil export values could introduce bias, as countries with higher domestic oil consumption would appear to be less economically dependent on oil. Overall, the oil income/GDP ratio provides a comprehensive and meaningful indicator of economic dependence on oil, enabling us to assess its impact on electoral competitiveness in multiparty autocracies and democracies<sup>2</sup>.

I adopt two distinct approaches to operationalize democracy and present their respective results separately. First, I use the level of democracy by employing democracy data from Varieties of Democracy (V-Dem) (Coppedge et al. 2011), allowing us to separate the electoral process from the liberal aspect of respect for rights and rules<sup>3</sup>. For the models with a continuous

<sup>2</sup> There is some variation in the level of government ownership in the oil sector. However, I lack sufficient data to take ownership structure into account. To my knowledge, the most comprehensive dataset on oil sector ownership is the data by Wegenast (2016). However, this data only covers 40 countries and only the period 1989-2010.

<sup>3</sup> In previous studies, researchers have commonly relied on the Polity index and Freedom House index as proxies for democratic institutions

operationalization of democracy I use the V-Dem Electoral Democracy Index (EDI). This measure captures not only the extent to which regimes hold free and fair elections, but also the existence of freedom of expression, universal suffrage, freedom of assembly, and independent sources of alternative view on political relevance. The index ranges from 0 (not democratic) to I (fully democratic).

Second, tor the dichotomous models, I rely on the regime typology proposed by Lührmann et al. (2018) in the V-Dem. I use the "electoral autocracy" category as our dichotomous cut-off point. It refers to a situation where a country has laws or constitutional provisions that allow for the existence of multiple political parties and the holding of elections for both the chief executive (such as the president) and the legislature (such as parliament or congress). However, the key issue is that these elections may not be truly free and fair in practice.

In contrast, "multiparty democracy" is characterized by the presence of both free and fair elections and a minimum level of institutional prerequisites for polyarchy, as defined by Dahl's theory of democracy. In the context of the V-Dem's Electoral Democracy Index, multiparty democracy refers to a political system where multiple political parties compete in elections, and these elections are considered to be genuinely free and fair. Additionally, the country must meet a minimum threshold of institutional prerequisites for polyarchy, as outlined by Dahl's conceptualization of democracy (Coppedge et al., 2023).

## **Control variables**

In addition to the main variables of interest, I have included several control variables in the analyses. These controls are aimed at capturing other factors that may influence electoral competitiveness and help isolate the specific effects of oil revenues. First, Seeberg (2017) argues that the control of the economy has a significant impact on the ability of authoritarian leaders to maintain their power, especially in the context of authoritarian elections. State control of the economy allows them to employ various strategies of electoral control that effectively bind internal elites and voters, making it difficult for opposition members and protesters to mobilize against the regime. By manipulating economic resources and incentives, authoritarian leaders can secure support, suppress dissent, and ensure their continued hold on power. Following this line of logic,

(Cheibub et al. 2010; Boix et al. 2013; Bernhard et al. 2001). The Polity IV dataset is designed to capture the de jure institutional framework, while the Freedom House Index (FHI) primarily measures civil liberties and political rights, reflecting de facto conditions. In contrast, V-Dem provides a nuanced assessment of institutional frameworks that considers both de jure and de facto elements (Boese 2019).

I include state capacity, measured by the index of economic control based on the government spending as share of GDP, regulation of credit, business and labor, and total resource income per capita (Seeberg 2017).

It is widely recognized that vote fraud and candidate intimidation have a significant impact on the electoral process and outcomes. Authoritarian leaders often employ various tactics of electoral manipulation to maintain control and influence the level of electoral competition. To account for this effect, I include a vote fraud variable in my analysis. This variable measures the presence of vote irregularities, such as vote fraud and voter intimidation, that occur during the lead-up to elections. (Beck et al. 2001).

I also consider economic indicators such as GDP growth and inflation. These variables, commonly used in studies on economic voting, reflect that the economic performance of a country can potentially shape electoral outcomes. By including these controls, I aim to account for the economic context in which elections take place and the impact it may have on electoral competitiveness. Furthermore, I recognize the potential influence of international actors on electoral dynamics. Specifically, I incorporate controls for country exports and foreign direct investment (FDI). The argument is that countries with important economic ties to the West may receive less international pressure and scrutiny regarding electoral manipulation.

Additionally, I include regional dummy variables for specific regions such as (sub-Saharan) Africa and the post-communist regions. These regions are particularly relevant for my analyses as they contain a substantial number of oil-producing multiparty autocracies. African countries, in particular, have been observed to have high rates of incumbent reelection. By including regional dummy variables, I aim to account for any regional-specific factors that may influence electoral competitiveness beyond the effects of oil revenues.

In the models that measure electoral competitiveness as a continuous variable, I account for the average district magnitude. According to the Duvergerian logic, smaller district magnitudes tend to promote voter coordination and favor larger, more viable political parties. By including this control variable, I account for the potential impact of district magnitude on electoral competitiveness, as smaller magnitudes may lead to a higher degree of party coordination and limited competition.

## Model specification

To analyze the relationship between oil production, democracy, and electoral competitiveness, I utilize logistic regression analysis for the dichotomous operationalization of electoral competitiveness (measuring electoral turnover) and standard OLS regression analysis for the continuous operationalization (measuring vote share of executive and smaller parties). In both types of regression models, I account for potential issues such as heteroscedasticity and clustered data by employing robust standard errors clustered at the country level. This approach helps address the potential correlation within countries and ensures accurate estimation of standard errors.

To mitigate concerns of endogeneity, I introduce a time lag for all non-election-related variables, including the indicator for oil revenues. Lagging these variables helps address any potential reverse causality and ensures that the independent variables are not influenced by the dependent variable. To explore the impact of oil revenues in both democracies and autocracies, I incorporate multiplicative interaction terms in the models. Specifically, I introduce two interaction terms: one between oil production value/GDP and democracy (dichotomous), and another between oil production value/GDP and the level of democracy (continuous). The hypothesis posits that the negative effect of oil production on electoral competition will be pronounced in autocracies and countries with a low level of democracy. However, in democracies or countries with a higher level of democracy, the impact of oil production is expected to be non-significant.

Furthermore, I conduct robustness tests to verify the stability of our results. These tests involve alternative model specifications, such as different control variables or variations in the measurement of electoral competitiveness. By examining the robustness of the findings across various model specifications, we can assess the consistency and reliability of our results. Overall, the analytical approach aims to provide robust and reliable insights into the relationship between oil revenues, democracy, and electoral competitiveness, while addressing potential methodological challenges and ensuring the validity of our findings.

## **Results and analysis**

Using executive turnover as the dependent variable, Table I presents the results of the multivariate logistic regression analysis. Model I represents the results when democracy is measured as a continuous variable, while Model 2 uses the dichotomous operationalization of democracy. The findings strongly support the hypothesis. The stand-alone variable for oil production

is statistically significant and negative in both Model I and Model 2, indicating that oil production has a detrimental effect on the likelihood of executive turnover in non-democratic countries (Model I) and in multiparty autocracies (Model 2). Additionally, it is evident that higher levels of democracy (Model I) and the presence of multiparty systems (Model 2) are associated with a greater probability of executive turnovers, even in the absence of oil revenues. Importantly, as a country's dependence on oil production increases, the disparity in the likelihood of turnover between low and high democracy levels, as well as between multiparty autocracies and democracies, becomes significantly more pronounced.

While the results from Models I and 2 in Table I provide initial support for the hypothesis, it is important to further examine the relationship between oil production and electoral competition across different levels of democracy. Figure 1 displays the marginal effect of oil on executive turnover, considering different values of democracy. The upper figure illustrates the marginal effect based on Model I, which measures democracy as a continuum, while the bottom figure relies on Model 2, using the dichotomous classification of democracy and multiparty autocracy. In the upper figure, it is evident that oil production has a negative impact on the probability of executive turnover. However, what is particularly noteworthy is that this negative effect becomes insignificant when the level of democracy surpasses 5.7 points. This suggests that as countries reach a higher level of democracy, the detrimental influence of oil production on executive turnover diminishes.

In the bottom figure of Figure 1, the predicted probability of turnovers in multiparty democracies appears to be relatively flat, indicating a limited effect of oil production, suggesting that the observed effect is not statistically significant. On the other hand, the slope of the predicted probability line is much steeper for multiparty autocracies. Particularly, when comparing multiparty autocracies with no oil production to those with an economy where 10 to 15 percent of the GDP is derived from oil, there is a substantial increase in the magnitude of the effect. The predicted probability of turnover in a multiparty autocracy without any oil revenues is approximately 0.34. However, in a multiparty autocracy with 15 percent of its GDP derived from oil, the corresponding probability drops significantly to around 0.08. This demonstrates the substantive effect of oil production on electoral competitiveness in multiparty autocracies.

It is worth noting that the large difference in predicted probabilities between multiparty autocracies with and without oil revenues highlights the significant influence of oil production on the electoral dynamics and the level of competition within these regimes.

Table 1: The Effect of Oil on Executive Turnover

DV: Executive Turnover	Model 1	Model 2	
	Democracy: Level	Democracy: Dummy	
Oil	-22.97***	-9.134 <sup>*</sup>	
	(8.051)	(4.725)	
Democracy	1.757**	0.690**	
	(0.726)	(0.305)	
Oil × Democracy	33.75***	9.518**	
	(11.36)	(4.806)	
State Capacity	0.066	0.148	
	(0.208)	(0.205)	
Vote Fraud	-0.360	-0.429	
	(0.407)	(0.405)	
GDP Growth	-0.036	-0.030	
	(0.029)	(0.029)	
Inflation	0.001	0.001	
	(0.001)	(0.001)	
FDI	0.035	0.029	
	(0.032)	(0.032)	
Export	-0.005	-0.011**	
	(0.006)	(0.006)	
GDP per capita	-0.041***	-0.021*	
	(0.014)	(0.012)	
Presidential	-0.006	0.023	
	(0.251)	(0.246)	
Sub-Sahara Africa	-1.086***	-1.075***	
	(0.328)	(0.325)	
Post-Communist	0.346	0.414	
	(0.356)	(0.349)	
Constant	-0.499	0.120	
	(0.571)	(0.420)	
Logistic Regression Pseudo R <sup>2</sup>	.145	.155	
Election	510	518	
Country	110	111	

Standard errors in parentheses

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

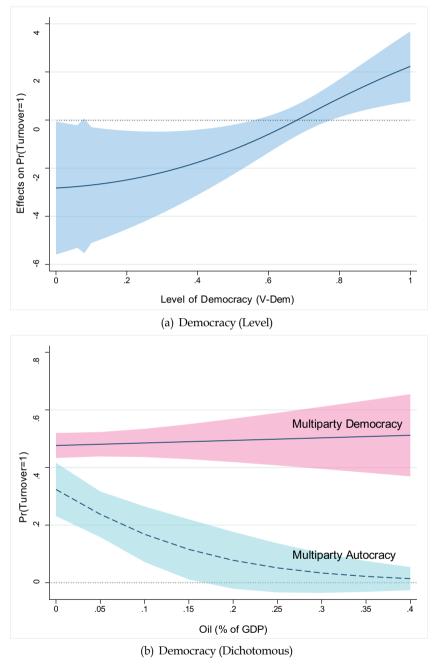


Figure 1: The Effect of Oil on Executive Turnover conditional on Democracy

*Note*: The upper figure represents the marginal effect of oil production on executive turnover based on Model 1, while the bottom figure represents the same based on Model 2.

In Table 2, we present the results of the OLS regression analysis, examining electoral competition measured by the vote share of executive parties. Model 3 utilizes a continuous operationalization of democracy, while Model 4 employs a dichotomous classification. The findings strongly support the hypothesis regarding the impact of oil production on electoral competition. In autocratic regimes, transitioning from no oil revenues to a hypothetical scenario where the GDP is entirely derived

from oil production leads to a significant increase in predicted support for the incumbent president or their party. Specifically, in Model 3, where democracy is measured continuously, the predicted support increases by 58 percentage points for countries with the lowest level of democracy. Similarly, in Model 4, using a dichotomous operationalization of democracy, the predicted support rises by 31 percentage points for countries classified as multiparty autocracies.

Table 2: The Effect of Oil on Executive Support (Vote Share) (OLS)

DV: Executive Support V-Dem (2021)	Model 3 Democracy: Level	Model 4 Democracy: Dummy
Oil	57.96***	-9.134*
Oil	(20.06)	-9.134 (4.725)
Democracy	-23.80***	0.690**
2 33 3. dey	(5.925)	(0.305)
Oil × Democracy	-95.29***	9.518**
	(34.21)	(4.806)
State Capacity	-1.476	-1.601
	(1.725)	(1.771)
Vote Fraud	2.304	4.007*
	(2.367)	(2.387)
GDP Growth	0.538***	0.588***
	(0.158)	(0.160)
Inflation	-0.001	0.001
	(0.001)	(0.001)
FDI	-0.009	0.008
	(0.191)	(0.192)
Export	-0.054	0.017
	(0.056)	(0.049)
GDP per capita	-0.001	-0.204*
	(0.128)	(0.122)
Presidential	4.941*	5.872 <sup>*</sup>
	(2.788)	(2.997)
District Magnitude	0.024	0.031
	(0.034)	(0.035)
Sub-Sahara Africa	7.206**	8.545**
	(3.417)	(3.666)
Post-Communist	-4.066	-5.104
	(3.707)	(3.967)
Constant	53.01***	37.60***
	(4.838)	(3.537)
R <sup>2</sup>	.295	.234
Election	501	509
Country	119	110

Standard errors in parentheses

Moreover, the interaction terms between oil and democracy are statistically significant and exhibit the expected direction, regardless of the operationalization of democracy. This signifies that the relationship between oil production and electoral competition is contingent on the level of democracy present in a country.

In Figure 2, we present the predicted vote share of the executive or their party, illustrating the marginal effect of oil on executive vote share. The upper figure corre-

sponds to Model 3, which measures democracy as a continuum, while the bottom figure corresponds to Model 4, utilizing the dummy variable of democracy. From the upper figure, we observe that oil production has a positive effect on the vote share of the incumbent in countries with lower levels of democracy. As the level of democracy increases, the positive impact of oil on the vote share diminishes. When the measure of democracy exceeds 4.2, the effect becomes statistically indistinguishable.

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

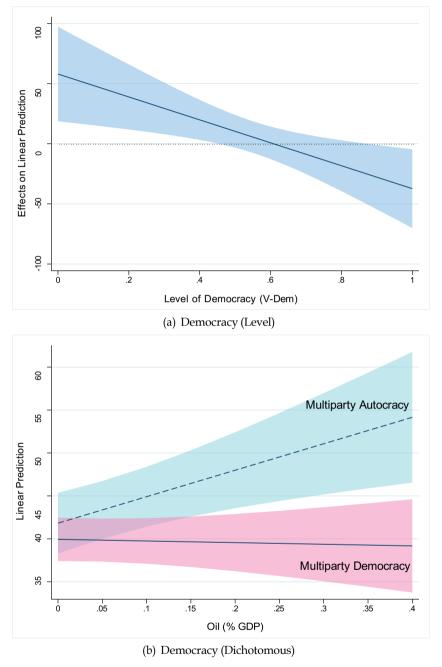


Figure 2: The Effect of Oil on Executive Vote Share conditional on Democracy

*Note*: The upper figure represents the marginal effect of oil production on executive vote share based on Model 3, while the bottom figure represents the same based on Model 4.

This suggests that the influence of oil production on the vote share of the incumbent is contingent on the level of democracy. In less democratic countries, oil resources play a significant role in bolstering the support for the incumbent, but this effect diminishes as the democratic institutions become more robust.

In the bottom figure of Figure 1, we observe that the predicted vote share of the incumbent in multiparty democracies remains relatively flat, indicating a limited

effect of oil production on electoral competition. However, the slope of the predicted line of vote share is upward-heading and much steeper for multiparty autocracies.

This suggests that in multiparty autocracies, oil production has a significant impact on reducing electoral competition by boosting the vote share of the executive. In other words, the presence of oil resources in multiparty autocracies strengthens the position of

Table 3: The Effect of Oil on Smaller Parties' Vote Share (OLS)

DV: Competition Vanhanen (2019)	Model 5	Model 6
	Democracy: Level	Democracy: Dummy
Oil	-46.93** (20.24)	-30.44*** (11.33)
Democracy	23.88***	6.867***
Democracy	(4.368)	(1.505)
Oil × Democracy	66.05**	27.30**
Oit * Democracy	(32.72)	(12.51)
State Capacity	-1.052	-1.109
, ,	(1.274)	(1.305)
Vote Fraud	1.947	1.189
	(1.899)	(1.915)
GDP Growth	0.003	0.012
	(0.113)	(0.114)
Inflation	0.001	0.001
	(0.001)	(0.002)
FDI	-0.097	-0.120
	(0.177)	(0.175)
Exports	0.073*	-0.002
	(0.042)	(0.038)
GDP per capita	0.174*	0.325***
	(0.100)	(0.095)
Presidential	0.877	0.249
	(2.093)	(2.249)
Mean District Magnitude	0.031	0.031
	(0.024)	(0.025)
Sub-Sahara Africa	-10.64***	-10.70***
	(2.542)	(2.738)
Post-Communist	4.150	6.168**
	(2.872)	(3.049)
Constant	30.91***	42.67***
	(3.589)	(2.642)
R <sup>2</sup>	.45	.417
Election	412	419
Country	98	99

Standard errors in parentheses

the incumbent, leading to a higher vote share. On the contrary, the same effect is not observed in multiparty democracies, where the influence of oil on electoral competition is relatively limited.

In contrast to the analysis of executive vote share, I now examine the electoral success of smaller parties as a measure of electoral competition, following the approach of Vanhanen (2019).

The results from the OLS regression analysis of

the percentage of votes gained by smaller parties are presented in Table 3. These findings align with the previous results discussed in Table 1 and 2.

The results indicate that smaller parties tend to receive weaker electoral support in countries with lower levels of democracy. In the absence of oil production, smaller parties are more likely to gain a higher vote share in democratic countries compared to multiparty autocracies. Moreover, the interaction terms between oil

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

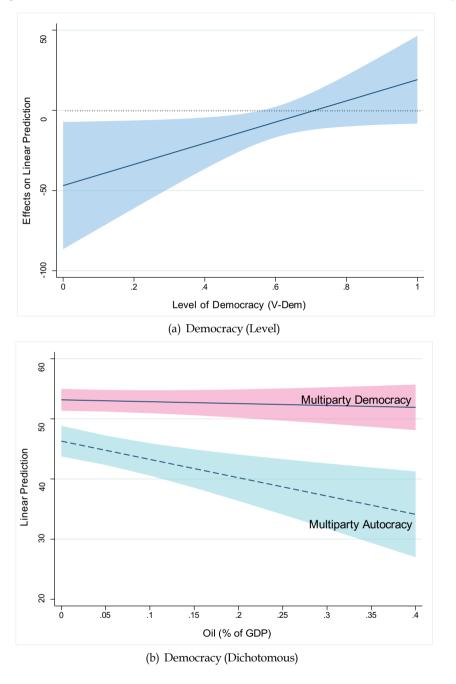


Figure 3: The Effect of Oil on Smaller Parties' Vote Share conditional on Democracy

production and democracy are statistically significant and positively signed, suggesting that the negative impact of oil production on the vote share of smaller parties diminishes in more democratic countries.

Figure 3 illustrates the predicted vote share of minor parties. The upper figure represents the marginal effect of oil on the vote share of smaller parties, based on Model 5. Meanwhile, the bottom figure, relying on Model 6, demonstrates the differential impact of oil on the electoral performance of minor parties between multiparty autocracies and democracies.

Examining the bottom figure, we observe that the predicted vote share of minor parties remain relatively stable in multiparty democracies, regardless of the level of oil production. However, in multiparty autocracies, we see a downward trend in the slope of the predicted vote share as oil production increases. Turning to the upper figure, we find that oil production has a negative effect on the vote share of smaller parties in countries with lower levels of democracy. As the level of democracy increases, the negative impact of oil on the vote share diminishes. When the measure of

democracy exceeds 5.5, the effect becomes statistically indistinguishable.

These results highlight the influence of democracy and oil production on the electoral success of smaller parties. In less democratic countries and in the presence of oil production, smaller parties face greater challenges in gaining significant voter support. However, as democracy strengthens, the negative impact of oil production on smaller parties' vote share becomes less pronounced, indicating a more competitive electoral landscape for these parties.

Overall, the findings strongly support the argument that oil production has a detrimental impact on electoral competitiveness in authoritarian regimes, regardless of how democracy is conceptualized or whether competitiveness is measured as support for the incumbent party, support for the minor parties or the likelihood of turnover. Across multiple models, we consistently observe a significant negative relationship between oil revenue and electoral competition. Moreover, the substantive effect of oil production is substantial. Our predictions indicate that in multiparty autocracies with high levels of oil dependency, the risk of losing elections is virtually non-existent. These results underscore the influential role of oil in shaping political dynamics and reducing the vibrancy of electoral processes in such regimes.

#### Robustness checks

To address the potential issue of measuring competitiveness based on support for the incumbent, I employ a more nuanced approach by distinguishing between presidential and parliamentary elections. I recognize that the dynamics and institutional arrangements differ between these two types of elections. In parliamentary systems, where post-election bargaining and coalition formation are common, I consider the party currently holding the prime minister's office as the incumbent. On the other hand, in presidential elections, I identify the current president as the incumbent, even if they have changed parties between elections. It is worth noting that I exclude cases where the incumbent president or prime minister does not run for reelection and their party does not field a candidate.

For presidential elections, if the incumbent president is not running, I designate the candidate representing the incumbent president's party as the incumbent. This approach allows us to capture the specific dynamics and nuances of both types of elections, taking into account the unique features of each system. By carefully defining and identifying the incumbents in each election, I aim to ensure that the measurement of competitiveness is not biased by the institutional context.

Figure 4 presents the marginal effect of oil on the executive vote share across presidential and parliamentary elections. Using data from presidential elections in the upper figures, I found the consistent patterns in that oil helps incumbents in less democratic countries. However, when it comes to parliamentary elections, shown in the bottom figures, it seems that the effect of oil is statistically indistinguishable regardless of how democracy is conceptualized.

These findings should not be interpreted as evidence that oil affects presidential elections dif-ferently from parliamentary elections. Additionally, these results do not cast doubt on the hypothesis. However, it is important to note that the sample of oil-dependent parliamentary autocracies is extremely small, consisting of only six multiparty authoritarian parliamentary elections in countries where oil accounted for more than 10 percent of GDP (Albania in 1992; Angola in 2008; Malaysia in 1978, 1982, 1986, and 1990). The limited number of parliamentary oil-producing autocracies makes it challenging to study the effect of oil on electoral competitiveness in parliamentary regimes.

To gauge the robustness of the results, I conducted several additional tests and re-estimated the models. In this analysis, I introduced country-fixed and year-fixed effects to account for potential country-specific and time-specific factors. By including these fixed effects, I aimed to control for unobserved heterogeneity and time-varying factors that may influence the relationship between oil production and electoral competitiveness.

Theresults of these robustness tests, presented in Table A1 in the appendix, confirm the stability and reliability of the findings. The coefficients and statistical significance of the oil production variable remained consistent across different model specifications, indicating that the impact of oil on electoral competitiveness is robust to the inclusion of fixed effects.

Another potential concern regarding the measurement of oil production is its potential endogeneity to electoral prospects. It is possible that incumbents, facing a significant threat in upcoming elections, may manipulate oil production to increase available rents and improve their electoral chances. While this objection does not undermine our theoretical framework, as it would still demonstrate how oil production reduces electoral competitiveness, we acknowledge the importance of addressing this issue.

To address the potential endogeneity concern, I conducted an additional robustness test using the country's estimated oil reserves (measured in barrels

<sup>4</sup> Angola is considered parliamentary due to the absence of presidential elections after 1992. According to the new constitution of 2010, Angola has officially abolished presidential elections and is thus classified as a parliamentary system.

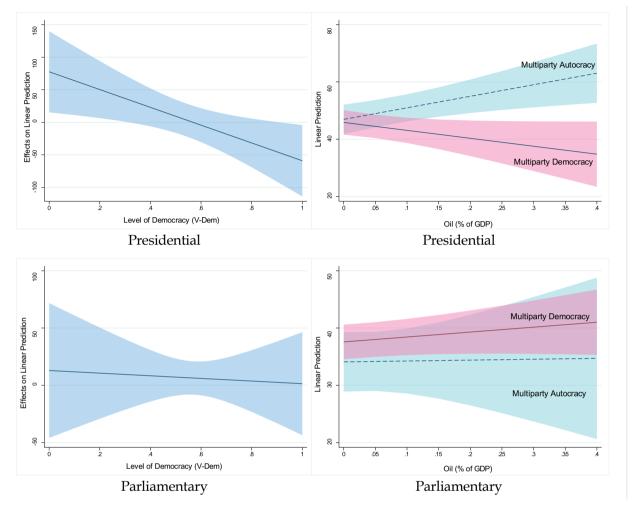


Figure 4: The Effect of Oil on Executive Vote Share-President vs Parliamentary System

per capita) as an alternative measure of oil dependency<sup>5</sup>. The results of this robustness test, presented in Figures AI and A2 in the appendix, confirm the robustness of our findings. The patterns and relationships observed in the main analysis, using oil production as the measure of oil dependency, are also evident when examining the effect of oil reserves on electoral competitiveness. This provides further support for the argument that oil production reduces electoral competitiveness in authoritarian regimes.

#### Conclusion

This study has shed light on the relationship between oil revenues and electoral competitive-ness in multiparty autocracies, taking into account the institutional dynamics of authoritarianism research. By combining theories of the rentier state and multiparty authoritarianism, I have provided novel insights into how oil income influences the electoral landscape in these regimes.

The empirical findings strongly support the hypothesis that oil income diminishes electoral competition in multiparty autocracies, while its impact is negligible in democracies. These results underscore the significant role of oil revenues in bolstering the position of incumbent authoritarian parties and constraining opposition forces. The availability of a steady, state-controlled resource stream, coupled with its nontransparent nature, contributes to asymmetries in resources between incumbents and opposition parties.

It is crucial to acknowledge that oil extraction alone does not guarantee regime survival in multiparty autocracies, and other factors contribute to the level of electoral competition. However, the robustness of the findings highlights the substantial influence of oil income on electoral dynamics. The probability of a political turnover diminishes significantly in heavily oil-

<sup>5</sup> The advantage of this measurement is that it is exogenous to electoral results since oil reserves are randomly al-located. However, it does not capture the overall importance of oil for the entire economy, including access to other potential resource streams for the opposition.

dependent multiparty autocracies, indicating the limited challenge that elections pose to incumbent regimes in such contexts.

These findings challenge conventional notions of elections as drivers of democratization in multiparty autocracies. Rather than solely focusing on actororiented causes, this study highlights the structural factors that curtail electoral competitiveness. It is important to recognize that the introduction of multipartyism does not automatically alleviate the resource curse in oil-producing states.

To summarize, this study contributes to our understanding of the intricate interplay between oil, electoral competitiveness, and authoritarianism in multiparty autocracies. By bridging the gap between the political economy of resource-rich states and the challenges faced by emerging democracies, this research invites further exploration of the role of oil revenues in shaping political outcomes and the prospects for democratization in these contexts.

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## Research Grant:

This research was supported by the Soongsil University Research Fund (New Professor Support Research) of 2022.

## **APPENDIX**

Table A1: The effect of Oil of Electoral Competition (Fixed Effect)

	Model 1 Turnover	Model 2 Turnover	Model 3 Gov't Vote	Model 4 Gov't Vote
Oil	-39.62**	-1.644	52.51 <sup>+</sup>	16.77
	(19.61)	(6.599)	(31.78)	(19.21)
Democracy	0.419	0.149	-7.228	2.616
	(1.809)	(0.539)	(8.349)	(2.370)
Oil × Democracy	62.39**	1.655	-92.93 <sup>*</sup>	-22.74
	(30.05)	(6.419)	(50.81)	(19.63)
State Capacity	0.256	0.394	-1.822	-1.355
	(0.532)	(0.523)	(2.122)	(2.102)
Vote Fraud	-0.202	-0.199	0.944	1.496
	(0.582)	(0.578)	(2.639)	(2.628)
GDP Growth	-0.076**	-0.070*	0.667***	0.705***
	(0.039)	(0.038)	(0.168)	(0.170)
Inflation	0.001	0.001	0.002	0.002
	(0.001)	(0.001)	(0.002)	(0.002)
FDI	0.074	0.082*	-0.121	-0.170
	(0.047)	(0.047)	(0.210)	(0.208)
Exports	0.007	0.007	-0.164**	-0.160**
	(0.019)	(0.019)	(0.076)	(0.072)
GDP per capita	0.026	0.019	-0.047	-0.003
	(0.049)	(0.049)	(0.179)	(0.173)
Presidential	-15.59	-15.95	13.47	15.20
	(2421.5)	(2578.9)	(13.04)	(13.01)
District Magnitude			0.069	0.078*
			(0.045)	(0.045)
Constant			43.06*** (8.306)	35.10*** (6.065)
R <sup>2</sup>	-	-	0.089	0.078
Election	422	422	501	509
Country	71	71	109	110

Standard errors in parentheses

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

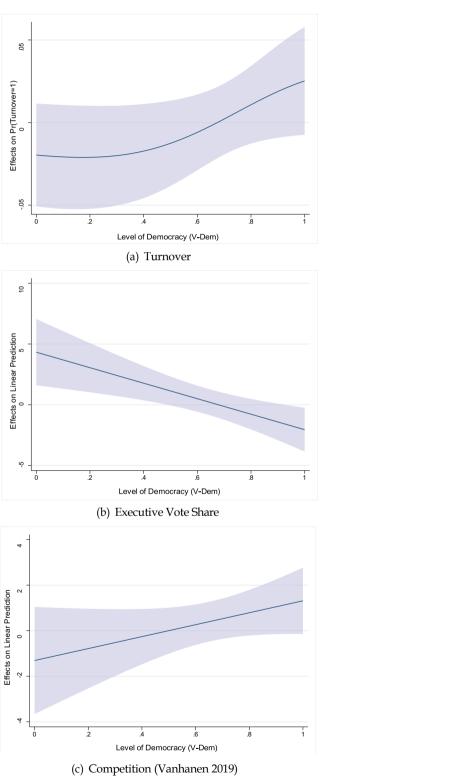
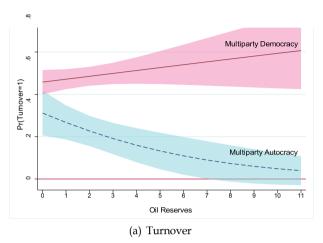
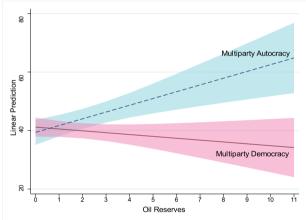


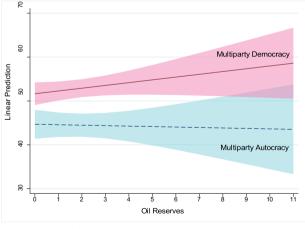
Figure A1: The Effect of Oil Reserves on Electoral Competition Democracy (Level)

Figure A2: The Effect of Oil Reserves on Electoral Competition Democracy (Dichotomous)





(b) Executive Vote Share



(c) Competition (Vanhanen 2019)