GIGA Research Programme:  
Violence and Security

Electoral Rentierism? The Cross-National and Subnational Effect of Oil on Electoral Competitiveness in Multiparty Autocracies

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No 272  
April 2015
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Abstract
Building on theoretical insights from research on the rentier state and the “resource curse,” several studies have supported the argument that oil hinders democracy. However, previous research on the rentier state has neglected the global surge of multiparty autocracies or “electoral authoritarian” regimes since the end of the Cold War. No systematic study has been carried out on the question of whether or not and how oil affects electoral contests in nondemocratic regimes. In this paper we contribute to filling this gap by combing the literature on multiparty autocracy and the political economy of the rentier state. As oil production creates substantial, nontransparent revenue streams to national and subnational governments, we hypothesize that oil production has a negative effect on electoral competitiveness, both cross- and subnationally, in multiparty autocracies. Consequently, the democratic “resource curse” emphasized in earlier work on the rentier state is likely to persist even after the introduction of multipartyism in cases where oil production predates democratic institutions. The paper tests the hypothesis cross-nationally, using data on all multiparty elections held in the world in the period 1975–2010, and subnationally, using a new data set on subnational election results and oil production in Nigeria. Our results confirm that oil impedes electoral competitiveness, both cross- and subnationally, in multiparty autocracies.

Keywords: oil, authoritarianism, elections, Nigeria, competition, Africa

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Michael Wahman and Matthias Basedau

Article Outline
1 Introduction
2 Multiparty Authoritarianism
3 Data and Research Design – Cross-National Models
4 Oil and Subnational Electoral Competition in Nigeria
Bibliography

1 Introduction
Few issues have attracted more attention among scholars of democratization than the relationship between oil and democracy. In the plentiful literature on the rentier state (e.g. Madhavy 1970; Luciani 1987) or the “resource curse” (Auty 1993; Sachs and Warner 1996), it has been argued that oil revenues tend to stabilize authoritarian regimes (e.g. Ross 2001; Jensen and Wantchekon 2004; Ulfelder 2007; Ross 2012). According to the rentier state theory, stability is created through a number of causal mechanisms, such as an increased state capacity for repression or co-optation. In an article by Gandhi and Przeworski (2007), it was ar-
gued that oil resources stabilize authoritarian regimes to such an extent that those regimes
with significant oil resources have often not found it necessary to allow for formally democ-
tratic institutions such as parties and multiparty legislatures. In effect, the global expansion
of the “multiparty authoritarian” regime type, also referred to as “electoral authoritarian”
(Hadenius and Teorell 2007) has been less notable among oil-producing than among non-oil-
producing autocracies. Nevertheless, the electoral revolution of the 1990s has not left author-
itarian rentier states untouched. Today, multiparty elections are held in several authoritarian
oil-producing states, including prominent cases such as Chad, Kazakhstan, and Russia.

There is reason to believe that oil has effects on the competitiveness of elections in such
regimes: A number of case studies on countries such as Azerbaijan, Angola, Nigeria, or Russia
have highlighted how oil resources have enhanced the electoral position of incumbents
and curbed electoral competitiveness. Oil has allowed incumbents to build strong patronage
networks, extend their ruling coalitions, reduce voter autonomy, and, when necessary, op-
press opposition forces (e.g. Fish 2005; McMillan 2005; Alieva 2006; Sandbakken 2006; Kend-
hammer 2006). Such tendencies have been especially noted in oil-producing regions within
rentier states.

Yet there has been no systematic research on how oil resources affect elections from a
cross- and subnational perspective. This study attempts to fill this theoretical and empirical
gap. We believe that systematic research on the effect of oil on electoral competitiveness is vi-
tal to expanding our knowledge on the relationship between oil and democratization. The
tendency in the comparative democratization literature to disaggregate the broad group of
authoritarian regimes according to their basic institutional logics (Pepinsky 2014) has sur-
prisingly not been well reflected in the research on the rentier state.

This paper focuses on the enhanced resource asymmetry between incumbents and the
opposition that is created by oil income in multiparty autocracies. 1 Earlier research on the
 political economy of multiparty autocracies has highlighted how electoral competitiveness
has been severely curbed as incumbent parties have tapped state resources to extend their
patronage networks and co-opt counter-elites (e.g. Magaloni 2006; Greene 2007; Arriola
2012). Such resource asymmetries are especially marked in state-centric economies where the
opposition is unable to access private resource streams truly independent from the state or
its representatives. This logic applies to oil-producing states and particularly to subnational
locations where the oil industry dominates the local economy and local political elites are

1 Matthias Basedau is grateful for financial support from the German Research Foundation, and Michael Wahman
is grateful for financial support from the Swedish Research Council [VR Dnr 2012-6653]. We would like to thank
Carlo Koos and Jan Pierskalla for generously sharing their data on Nigerian oil production and Daniel Chapman
and Kim Schultz for their excellent research assistance. An earlier version of the manuscript was presented at
King’s College London’s Political Economy Seminar on 19 November 2014. We are thankful to all the partici-
pants at the seminar, especially Rubén Ruiz-Rufino. We would also like to thank Moises Arce and Carl Levan
for their invaluable comments.
able to access the revenues derived from oil production. Since the global wave of oil national-
ization in the 1970s, oil revenues have been highly concentrated in the hands of national gov-
ernments (Luong and Weinthal 2006; Ross 2012). Old democracies, which democratized be-
fore the discovery of oil or before the wave of oil nationalization in the 1970s, have generally
been successful at putting in place robust checks and balances and effective bureaucracies to
prevent oil revenues being used for partisan causes (Juel-Andersen and Ross 2014). However,
in many new electoral regimes where the oil economy predates the democratic institutions,
oil revenues have created a steady and non-tax-based revenue stream with very little public
oversight.

This paper is the first to systematically study the effect of economic oil dependence on
electoral competition both cross- and subnationally. The cross-national analysis is based on
logistic and OLS cross-sectional time-series analysis of turnover and government-party sup-
port for all executive elections (presidential or parliamentary) in the world in the period
1975–2010. The subnational analysis uses the case of Nigeria, a multiparty autocracy that is
highly economically dependent on oil and which has a system of subnational oil-revenue
derivation (Lewis 2007), to study the effect of oil production on subnational electoral com-
petitiveness. The statistical analysis is based on multilevel OLS regressions using geocoded
data on oil production in combination with new electoral and geographic data from the gu-
bernatorial, senatorial, and lower-house elections that made up the 2011 general elections.

The results from our cross-country study show that oil revenues have a significant nega-
tive effect on executive turnover and a significant positive effect on government-party sup-
port in multiparty autocracies, but no significant effect in democracies. Furthermore, the Ni-
gerian case study shows that oil production is significantly correlated with incumbent-party
support in gubernatorial, senatorial, and lower-house elections.

The remainder of this paper is organized as follows: In Section 2 we review the literature
on the rentier state and multiparty democracies before outlining our core theoretical argu-
ment and the corresponding hypotheses. We then, in Section 3, present our empirical strategy
as well as the data and results from our cross-country analysis. In Section 4 we present the
Nigerian case and the data, empirical strategy, and results from the subnational analysis. In
the conclusion we summarize our arguments and findings and outline a number of challenges
for future research.

2 Multiparty Authoritarianism

Authoritarian states are often negatively defined as regimes that do not meet certain criteria
for democracy. Nondemocratic regimes are not, however, one homogenous group but differ
fundamentally in terms of the basic institutions used to underpin authoritarian rule. In re-
cent years there has been a proliferation of scholarship trying to categorize authoritarian re-
gime types and study the effect of authoritarian institutions on a number of theoretically interesting outcomes (Geddes 1999; Hadenius and Teorell 2007; Brownlee 2009).

Disaggregating the group of authoritarian regimes has also allowed scholars to identify changes in the organization of authoritarian rule over time (Hadenius and Teorell 2007; Miller forthcoming). The third wave of democracy initiated a rapid global wave of political transformation in the 1970s and escalated after the end of the Cold War in the 1990s (Huntington 1991). With this global transformation, an unprecedented number of countries implemented formally democratic institutions, such as minimally competitive elections and multiparty legislatures. However, in many of these “new democracies” authoritarianism was maintained despite the introduction of multiparty democratic institutions. When studying these regimes, scholars have acknowledged how elections, although generally free and permitting organized political opposition, cannot be described as fair. Incumbents have maintained several tools to manipulate elections, and as a consequence, the electoral playing fields are severely tilted in favor of the incumbents, thereby preventing equal political competition and reducing the risks associated with multiparty elections (Levitsky and Way 2010; Schedler 2013).

Typologies of authoritarian regimes have classified these regimes in different ways and used varying labels to describe this particular breed of autocracy. Some of the more commonly used labels include “hybrid regimes” (Diamond 2002), “competitive authoritarian” (Levitsky and Way 2010), and “electoral authoritarian” (Schedler 2013). In this paper we use the term “multiparty autocracy” (Wahman et al. 2013). Multiparty autocracies are autocracies that arrange elections to fill the top national political offices. Although such elections are not free and fair, they allow opposition parties to run and, hence, permit at least a minimal level of political competition.²

The literature on multiparty autocracy has dealt extensively with not only the potentially democratizing effect of authoritarian elections (Lindberg 2006) but also the factors that may increase authoritarian resilience. For instance, scholars such as Kenneth Greene (2007) and Beatriz Magaloni (2006) have argued that state-centric economies in many new democracies have created a profound resource asymmetry between ruling parties and their oppositional rivals, leading to what Greene (2007) labels “hyper-incumbency” advantages. As such economies have been largely centered on the state, incumbent parties have utilized state resources to maintain and build extensive patronage networks, thereby curbing electoral competitiveness and the prospect of viable opposition parties (Arriola 2013).

² The term “multiparty autocracy” is very similar to the term “electoral authoritarianism,” though it acknowledges that even one-party states may arrange elections. We do not confine ourselves to competitive authoritarian regimes, as this category introduces a rather arbitrary threshold between “hegemonic” and “competitive” authoritarian regimes. For the purposes of this paper, this division would also imply selecting the sample on the dependent variable (competition).
The multiparty autocracy literature helps us understand the source of low electoral competitiveness from a cross-national perspective and attributes increased competitiveness in multiparty autocracies to privatization and more diversified economies. The literature has, however, not dealt extensively with the spatial and subnational patterns of electoral competitiveness. Such subnational variations might help to establish the mechanisms by which resource asymmetry curbs electoral competitiveness. Studying Russia and Kyrgyzstan, McMann (2006) has explained the lack of local electoral competitiveness with low economic voter autonomy. When voters lack economic autonomy from the state, they are generally unable to pursue oppositional politics. Local political economies in multiparty autocracies vary greatly. In some areas most economic activities are controlled by the state or local economic elites closely associated with the central bureaucracy. However, other local economies are significantly more diversified, thus leaving space for more political competition. In keeping with this argument, it has often been suggested that the local political economy can explain variations in subnational levels of democracy (Gervasoni 2010; Sidel 2014).

2.1 The Rentier State: Oil and Autocracy

There is a vast body of literature dealing with the political economy of natural resources such as oil or diamonds. The “resource curse” literature (e.g. Auty 1993) originally stressed the economic consequences of natural resource extraction (e.g. Sachs and Warner 1996), while another important subfield has dealt with the relationship between natural resources and civil conflict (e.g. Collier and Hoeffler 2004; Ross 2012; Le Billon 2012).

With regard to our research question, Ross’s “Does oil hinder democracy” (2001) was arguably the first work to bring the topic to mainstream political science. Yet the idea that oil negatively impacts democracy has its roots in a longer tradition. The rentier state theory, originally advocated by Madhavy (1971) as well as Beblawi and Luciani (Beblawi 1987; Luciani 1987), argues that oil (and other) revenues tend to stabilize regimes, particularly authoritarian ones like those in the Middle East, about which the theory was first developed. A number of cross-country empirical studies have confirmed the negative relationship between oil and democracy (e.g. Ross 2001; Jensen and Wantchekon 2004; Ulfeder 2007; Ross 2012).

According to the literature (see e.g. Ross 2001; Basedau and Lay 2009), stability is created through a number of mechanisms, mainly repression, co-optation, or indirect socioeconomic effects. On the one hand, rentier states might use their ample revenues from oil to effectively repress any kind of political opposition by means of a well-developed security apparatus. On the other hand, oil revenues may form the key element of a “social contract,” according to which the distribution of revenues is traded for political support. The negative relationship between oil and democracy is not uncontested though. Some authors argue that it is spurious or has been confined to the period since the 1970s (Herb 2005; Haber and Menaldo 2011; Ross

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3 One could argue that sub-Saharan oil-producing countries are not doing a good job of providing such a “social contract” as they tend not to redistribute oil money (see e.g. Basedau and Lay 2009).
2012). Most importantly for the purpose of this study, Ross (2012) makes a powerful case for the negative effect of oil on democracy, but his research has largely ignored the changed face of authoritarianism in the late twentieth century (Hadenius and Teorell 2007).

Moreover, while conflict studies on resources have largely embraced geographical disaggregation (e.g. Lujala 2010), implying stabilizing rentier effects at the subnational level (Basedau and Pierskalla 2014), the debate on the oil–democracy link has not dealt at all with the subnational effects of oil production on democracy. As a way to mitigate conflicts over oil revenues and curb separatist sentiments among oil-producing regions, many oil-producing countries have put in place systems of derivation where local governments in oil-producing regions receive substantial shares of the oil revenues (Anderson 2012). Such systems have reproduced the national-level resource asymmetries at the local level, creating especially low levels of electoral competitiveness in these localities and improving the electoral standing of incumbents, who are able to use state resources for campaigning and to co-opt rival elites.

In sum, the multiparty autocracy literature offers an idea of how one-sided and state-centered economies can serve incumbents, but the role of oil has never been investigated empirically. The rentier state literature offers theoretical answers about how oil “hinders” genuine democracy but has ignored recent developments in authoritarianism and thus has not distinguished between subtypes of authoritarianism. Despite the increasing body of subnational studies, the oil–democracy link has not been investigated at the subnational level. We argue that rentier state arguments provide an excellent opportunity to systematically study the impact of state-centered economies on electoral competitiveness in multiparty autocracies. While nonmultiparty autocracies try to prevent any opposition from finding a platform for mobilization, the presence of a multiparty system allows opposition forces to mobilize by forming associations and running in elections. In multiparty autocracies, incumbents have to make sure that the electoral process is unlikely to produce turnovers. Incumbents in multiparty autocracies have allowed the opposition into the stadium, but they have to make sure that there is not a level playing field, and oil resources can be used for this very purpose. In oil-dependent economies most financial resources stem from oil. Since the nationalization processes in most countries in the 1970s (Ross 2012), the revenues from oil have mostly accrued to the state; hence, nonstate actors, especially the opposition, have faced a systematic disadvantage. When the incumbents use oil money in election campaigns, this creates the nonlevel playing field they need to ensure reelection. Even when the voting as such is free, the relative advantage from oil will ensure that the process is not fair.

We hence expect the following:

H1: Oil endowments reduce electoral competitiveness in multiparty autocracies, but not in multiparty democracies.

We further believe that the logic of oil endowments is not a purely national phenomenon. When H1 is correct, we should observe the same logic across subnational entities within a
national state that redistributes oil revenues in an uneven manner across subnational administrative units (Anderson 2012). Such systems are likely to reproduce the national-level resource asymmetries at the local level, creating especially low levels of electoral competitiveness in these localities and improving the electoral standing of incumbents, who are able to use state resources for campaigning and to co-opt rival elites (Sidel 2014).

Our second hypothesis thus reads as follows:

H2: Electoral competitiveness in oil-producing states is especially low in oil-producing subnational entities.

3 Data and Research Design – Cross-National Models

The hypotheses laid out in the theory section suggest that oil revenues impede electoral competition in multiparty autocracies. The decreased levels of competition should be apparent cross-nationally when we compare autocracies with different levels of oil revenue. We have also hypothesized that the mechanisms operating cross-nationally are reinforced subnationally in elections within oil-producing areas, at least in cases where local authorities in oil-producing regions are entitled to a share of the revenue from their own production. To investigate these hypotheses empirically, we estimate two sets of models, one cross-national and one subnational. This section focuses on data and research design issues in relation to the cross-national models; similar issues regarding the subnational models are presented before the introduction of the subnational results.

Our cross-national sample consists of all executive elections held in multiparty regimes in the world during the period 1975–2010. The broad category of multiparty regimes consists of both multiparty autocracies and democracies. Regime classifications are derived from the Wahman et al. (2013) regime data set. The defining feature of multiparty regimes is that they arrange multiparty elections for the country’s highest political office, with at least limited opposition participation allowed. The definition, hence, excludes single-party electoral regimes, where there is no interparty competition.4

To establish the timing of elections we rely on data from the Database of Political Institutions (DPI). We only include executive elections – that is, parliamentary elections in parliamentary systems and presidential elections in presidential systems (based on the classification from DPI). All in all, this leaves us with a maximum sample of 615 elections in 128 countries. According to Wahman et al.’s (2013) categorization, 66 percent of these elections were arranged in democracies and 34 percent in multiparty autocracies. The average country in the sample derived 3.9 percent of its GDP from oil in the year prior to an election.

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4 The multiparty regime type does not include monarchy-military and military-multiparty regimes – both of which are hybrid multiparty regimes – where the real executive power rests with nonelected officials.
As described in further detail below, we operationalize the dependent variable (electoral competitiveness) in two different ways. One of these two operationalizations is dichotomous and the other is continuous. For the dichotomous models we make use of logistic regression analysis, whereas we use standard OLS regressions for our models with a continuous dependent variable. For both types of models we employ robust standard errors clustered on country. As a robustness check – given the changing nature of the oil industry and its relation to the state (Juel and Andersen 2012) together with the expansion of multiparty autocracy after the end of the Cold War (Levitsky and Way 2010) – we have also run all models with year fixed effects.5

3.1 Cross-National Data

Electoral competitiveness is measured here as both a continuous and a dichotomous concept. For the continuous test, we simply use the national vote share received by the incumbent party/president. The higher the vote share received by the incumbent, the lower the level of competitiveness. This measurement is close, but not identical, to that used by Greene (2010). In Greene’s study on authoritarian single-party dominance, the dependent variable is measured as the dominant party’s margin of victory over the first loser. We contend, however, that using the incumbent’s vote share is preferable as the incumbent’s margin of victory is likely to be a function not only of dominance but also of opposition fragmentation (that is, competition might be high, but the opposition may be unable to capitalize on this due to internal divisions).

A potential problem with measuring competitiveness based on the support for the incumbent is that the measurement is not independent from institutional arrangements. We would expect presidential candidates to receive a higher share of the vote than parliamentary parties given the winner-takes-all character of presidential elections. Parliamentary systems enable post-election bargaining and hence favor voter fractionalization. As a consequence, we run two separate models for our continuous conceptualization of electoral competitiveness, one for presidential elections and one for parliamentary elections. Other electoral institutional features such as the electoral system will also determine the incentives for voters to coordinate. We discuss these features in more detail when we present the control variables. In parliamentary elections we consider the party currently occupying the prime minister’s office to be the incumbent. For presidential elections we consider the current president to be the incumbent.6 We code the incumbent support as the vote share received in the first electoral round in cases where a runoff was required.

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5 We do not use country fixed effects due to the fact that many of the countries (especially those with authoritarian regimes) have only a few elections in the sample and a rather low level of variation in oil revenues.

6 This is the incumbent (though he/she might have changed parties between elections). If the incumbent president is not running, we consider the candidate representing the current president’s party to be the incumbent. Cases where the incumbent president/prime minister does not run for reelection and where his/her party does not field a candidate are left out of the sample.
We also run the models using a dichotomous operationalization of political competition. In these models we simply record whether or not an electoral turnover took place. This alternative operationalization makes parliamentary and presidential elections more comparable and hence allows us to run the model with a larger sample. Also, it is an important control, as electoral manipulation will sometimes make the exact election results from authoritarian elections unreliable. We code a turnover in presidential elections in those cases where the incumbent president was voted out of power. In cases where the incumbent president did not run, we code a turnover when the candidate representing the president’s party lost (in two-round elections we code based on the results of the second round). For parliamentary elections we code a turnover when the prime minister’s party is left out of the government coalition following the election. Data for both the turnover and incumbent support variables have been collected from a number of electoral resources including Keesing’s Record of World Events, the Interparliamentary Union, Nohlen et al. (1999), Nohlen (2005), and Nohlen and Stöver (2010).

To measure economic dependence on oil we use oil income/GDP. The data is collected from Ross (2012) and denotes the value of a country’s oil production in constant year-2000 US dollars divided by the country’s total GDP. Using the total value of oil production in relation to GDP is preferable to other possible operationalizations in this context. Relying on oil income/capita would capture the relative wealth of the country/government but would not take into account other possible revenue streams that could potentially be tapped into by the opposition. Also, oil export values would bias the results, as more affluent countries tend to consume more of their own oil domestically (Ross 2012).

There has been a lively debate on the merits of continuous versus dichotomous understandings of democracy (e.g. Elkins 2000; Munck and Verkuilen 2002), and to incorporate both understandings of democracy we employ two different operationalizations in our models and present these results separately. Following Hadenius and Teorell (2005; 2007), we measure the degree of democracy with a combined Freedom House and Polity IV score. The combined score is used to compensate for the individual shortcomings of the two respective indices.\(^7\) The aggregate is derived by computing the average Freedom House political rights and civil liberties score (reversed and transformed to a 0–10 scale) and combining it with the revised combined autocracy and democracy score from the Polity IV data (also converted to a 0–10 scale). For the dichotomous operationalization of democracy we use the classification provided in Wahman et al. (2013). Under this classification system, countries with a democracy score of 7 or higher on the combined Freedom House and Polity scale presented above are classified as democracies.\(^8\) The Wahman et al. classification is preferable to other dichotomous classifications that

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\(^7\) This combined FH/Polity IV index demonstrates higher validity and reliability than its constituent parts and also outperforms all rival indices (Hadenius and Teorell 2005).

\(^8\) The threshold is derived observing the “empirical threshold” of five widely cited dichotomous classifications of democracy (Chibub et al. 2010; Boix et al 2013; Bernhard et al. 2001; Freedom House’s electoral democracy category; and Polity IV’s dichotomous classification).
rely on electoral turnovers to separate democracies from autocracies (e.g. Cheibub et al. 2010). Since electoral competitiveness is our dependent variable, we are unable to use any classifications that rely on electoral outcomes.

To investigate the effect of oil revenues in democracies and autocracies we add multiplicative interaction variables to all models, one interaction between oil production value/GDP and democracy (dichotomous) and one between oil production value/GDP and level of democracy (continuous). Our hypothesis is that oil production will impede electoral competition in autocracies and countries with a low level of democracy but will have no significant impact in democracies or countries with a higher level of democracy.

The analysis also includes a number of control variables. In relation to the economic voting theory we include controls for \textit{GDP growth} and \textit{inflation}, as governments with poor economic performance will normally receive less support and be more likely to lose power (e.g. Dutch and Stevenson 2008; Collier and Hoeffler 2009). More ethnically diverse countries are also likely to have less voter coordination and should hence show less party domination (Moser and Scheiner 2011). Consequently, we include a control for \textit{ethnic fractionalization}. A growing literature on democratic norm enforcement has argued that international actors are more likely to turn a blind eye to electoral manipulation in countries where the West has important economic interests (Donno 2010). Although a recent study by von Soest and Wahman (2015) did not show any statistically significant relationship between oil production and the probability of democratic sanctions, oil could affect international pressure indirectly by increasing country \textit{exports} and \textit{foreign direct investment} (FDI). We hence control for these two variables. We have also included regional dummy variables for (sub-Saharan) Africa and the postcommunist regions. These are the regions where most of the oil-producing multiparty autocracies are located – most of the petrostates in the Middle East do not hold multiparty elections (see e.g. Crystal 1995) – and African countries in particular have been found to have exceptionally high reelection rates (Posner and Young 2007).

For the models measuring competitiveness as a continuous variable, we have also included two controls to account for institutional variations that are likely to change the incentives for voter coordination. In presidential elections we control for whether a country has an \textit{absolute majority} election – that is, whether a second round can be called if a presidential can-

\footnotesize

9 GDP growth is measured as the annual growth rate of GDP in percent at market prices based on constant local currency. Inflation is measured as the annual growth rate of the GDP implicit deflator and shows the rate of price change in the economy as a whole. Data on growth and inflation is from the World Development Indicators (WDI).

10 Measured as the probability that two randomly selected people from a given country will not belong to the same ethnolinguistic group (Alesina et al. 2003).

11 Data on FDI and exports are taken from the WDI. FDI measures net inflows of FDI as a percentage of GDP. Exports measures exports as a percentage of GDP.
didate does not receive an absolute majority of the votes (Jones 1999). We have also included a control for the average district magnitude. According to classic Duvergerian logic, smaller district magnitude should increase coordination in parliamentary elections and hence favor larger viable parties (Cox 1997). We have also included this control for presidential elections as there might be a contamination effect between parliamentary and presidential elections.

3.2 Cross-Country Results

Before we discuss the results from our multivariate model, Table 1 displays the indicators of electoral competitiveness for the 10 multiparty autocracies most economically dependent on oil. Interestingly, none of the 28 elections held in these countries have ever led to an executive electoral turnover. Moreover, incumbents have generally secured remarkably high vote shares. Chad has the lowest average vote share for the incumbents among the 10 countries. However, the most competitive election in Chad was held in 1996, before the country had started to extract any oil. The average vote share in Russia has also been somewhat lower than in the other top oil-producing countries. The level of competition in Russia has, however, decreased over time, especially since the transition from the Yeltsin regime to the Putin/Medvedev regime. Although there has not been a marked shift in oil dependence for the overall economy, ownership structures have changed fundamentally as a result of the Putin regime’s reassertion of state control over the energy sector in the early part of this century (Fish 2005: 258 ff.).

Table 1: Top-10 Oil-Dependent Multiparty Autocracies

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP from Oil, 2010</th>
<th>Years of Multiparty Autocracy (elections in sample)</th>
<th>No. of Electoral Turnovers</th>
<th>Mean Government Electoral Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>55%</td>
<td>3 (1)</td>
<td>0</td>
<td>82% (parl.)</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>45%</td>
<td>19 (5)</td>
<td>0</td>
<td>86% (pres.)</td>
</tr>
<tr>
<td>Equatorial Guinea</td>
<td>47%</td>
<td>18 (3)</td>
<td>0</td>
<td>94% (pres.)</td>
</tr>
<tr>
<td>Gabon</td>
<td>43%</td>
<td>21 (4)</td>
<td>0</td>
<td>60% (pres.)</td>
</tr>
<tr>
<td>Chad</td>
<td>34%</td>
<td>15 (3)</td>
<td>0</td>
<td>57% (pres.)</td>
</tr>
<tr>
<td>Nigeria</td>
<td>25%</td>
<td>12 (2)</td>
<td>0</td>
<td>60% (pres.)</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>24%</td>
<td>17 (3)</td>
<td>0</td>
<td>91% (pres.)</td>
</tr>
<tr>
<td>Algeria</td>
<td>22%</td>
<td>2 (1)</td>
<td>0</td>
<td>90% (pres.)</td>
</tr>
<tr>
<td>Yemen</td>
<td>19%</td>
<td>18 (2)</td>
<td>0</td>
<td>87% (pres.)</td>
</tr>
<tr>
<td>Russia</td>
<td>14%</td>
<td>20 (4)</td>
<td>0</td>
<td>58% (pres.)</td>
</tr>
</tbody>
</table>

Below we show the results of our cross-country models. Again, electoral competitiveness is measured as both a continuous (support for incumbent party) and a dichotomous (turnover) variable. We also use two different measures of democracy, one continuous and one dichotomous. For the models that measure electoral competitiveness as support for the incumbent party, we have divided the sample into presidential and parliamentary elections. We are

---

12 Data gathered from a number of sources: Keesing’s Record of World Events, the Interparliamentary Union, Nohlen et al. (1999); Nohlen (2005); Nohlen and Stöver (2010).
mainly interested in the results regarding the interaction terms between democracy (either continuous or dichotomous) and the value of oil production. In accordance with H1, we would expect oil production to impede electoral competitiveness in nondemocracies, while the effect of oil production should be smaller for democracies or more democratic countries. We include the full list of covariates in all models. To avoid problems of endogeneity we have lagged all non-election-related variables (including the indicator for oil revenues). We have also run all models including year fixed effects and received substantially the same results.

Table 2 shows our results in relation to turnovers. Model 1 shows the results when democracy is measured as a continuum, and Model 2 uses the dichotomous operationalization of democracy. The results provide strong support for H1. Our main interest is the interaction term between democracy and oil production, together with the two stand-alone variables for oil production and democracy, respectively. The stand-alone variable for oil production is significant and negative in both Model 1 and Model 2, indicating that oil production has a significant and negative effect on the propensity for turnover in countries with the lowest level of democracy (Model 1) and in those dichotomously classified as autocracies (Model 2). We also see that at higher levels of democracy (Model 1) and in democracies (Model 2) there is a higher propensity for turnovers, even without any oil revenues. Most importantly, the difference in the propensity for turnover between countries with low and high levels of democracy and between autocracies and democracies becomes significantly larger as a country becomes more dependent on oil production.

The predicted probability of turnovers at different levels of oil production is plotted in Figure 1. For ease of interpretation, the graph relies on the dichotomous classification of democracy and multiparty autocracy used in Model 2 (Table 1). Figure 1 shows a slightly upward-sloping predicted probability for turnovers in democracies, but the effect is not even close to significant if we look at the standard errors. The slope of the predicted probability line is, however, much steeper for autocracies, especially when going from no oil production to an economy where 10 to 15 percent of the GDP is derived from oil. The predicted probability of turnover is .33 for a multiparty autocracy without any oil revenues. The corresponding probability in a multiparty autocracy that derives 15 percent of its GDP from oil is only approximately .08, which demonstrates that oil production has a large substantive effect on electoral competitiveness. Table A1 in the appendix reruns Model 1, splitting the sample between democracies and multiparty autocracies. This additional test is to account for the possibility that the covariates in the model might affect electoral competitiveness differently in democracies and multiparty autocracies.13 The findings in Table A1 confirm our findings. Oil has a significantly negative effect on the probability of turnovers in multiparty autocracies (Model 13) but no statistically significant effect in democracies (Model 14).

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13 We also include a control for level of democracy to adjust for the fact that countries within the multiparty autocratic group are autocratic to different extents.
Table 2: Logistic Regression on Turnover

<table>
<thead>
<tr>
<th>DV:</th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presidential Election</td>
<td>.180 (.222)</td>
<td>.023 (.024)</td>
</tr>
<tr>
<td>GDP Growth t-1</td>
<td>-.037 (.024)</td>
<td>-.037 (.024)</td>
</tr>
<tr>
<td>Inflation t-1</td>
<td>.001 (.000)</td>
<td>.001 (.000)</td>
</tr>
<tr>
<td>FDI t-1</td>
<td>.012 (.023)</td>
<td>.016 (.022)</td>
</tr>
<tr>
<td>Exports t-1</td>
<td>-.011** (.005)</td>
<td>-.012** (.005)</td>
</tr>
<tr>
<td>Africa</td>
<td>-.981** (.429)</td>
<td>1.151*** (.428)</td>
</tr>
<tr>
<td>Postcommunist</td>
<td>.569** (.253)</td>
<td>.486* (.251)</td>
</tr>
<tr>
<td>Ethnic Fractionalization</td>
<td>.789 (.516)</td>
<td>.580 (.465)</td>
</tr>
<tr>
<td>Oil/GDP t-1</td>
<td>-27.566*** (8.678)</td>
<td>-12.324** (6.117)</td>
</tr>
<tr>
<td>Level of Democracy t-1</td>
<td>.195*** (.061)</td>
<td>–</td>
</tr>
<tr>
<td>Democracy Dummy t-1</td>
<td>–</td>
<td>.621** (.276)</td>
</tr>
<tr>
<td>(Oil/GDP) t-1*Level of Democracy t-1</td>
<td>3.138*** (.942)</td>
<td>–</td>
</tr>
<tr>
<td>(Oil/GDP) t-1* Democracy Dummy t-1</td>
<td>–</td>
<td>12.608** (6.066)</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.646** (.692)</td>
<td>-2.81 (.419)</td>
</tr>
<tr>
<td>N elections</td>
<td>615</td>
<td>615</td>
</tr>
<tr>
<td>N countries</td>
<td>128</td>
<td>128</td>
</tr>
<tr>
<td>Pseudo R2</td>
<td>.112</td>
<td>.0990</td>
</tr>
</tbody>
</table>

*** p<.01 **p<.05 *p<.10
Note: Entries are logistic regression coefficients; robust standard errors clustered by country are given in parentheses.
Figure 1: Predicted Probability of Turnover

Note: Lines show the predicted probability of turnover for multiparty autocracies and democracies (according to the classification by Wahman et al. 2013); the colored areas illustrate the 90 percent confidence level.
Source: Authors’ compilation.

Table 3 shows the OLS regression models for our continuous operationalization of electoral competitiveness (understood as support for the incumbent). Models 3 and 4 present the results for presidential elections, and models 5 and 6 show the results for parliamentary elections in parliamentary systems. Once again, we use separate models with dichotomous (models 3 and 5) and continuous (models 4 and 6) operationalizations of democracy. Looking at the presidential models, we again see clear support for H1. For an autocracy, going from having no oil revenues to a GDP derived only from oil production (a theoretical value) increases the predicted support for the incumbent president or his/her party by 54 percentage points for a country with the lowest level of democracy (Model 3) or 43 percentage points for a country dichotomously classified as an autocracy (Model 4). We also see that the interaction between oil and democracy is significant regardless of whether we use the dichotomous or the continuous operationalization of democracy. Moreover, these findings are confirmed in our split-sample robustness tests, presented in Table A2 of the appendix. The predicted support for the presidential incumbent is plotted in Figure 2. As with the turnover plot, we see that competitiveness increases with higher oil revenues in democracies (although the slope is level and the standard errors large), while competitiveness decreases (the support for the incumbent increases) with higher oil revenues in autocracies. The predicted
support for the incumbent president or his/her party is 53 percent in a non-oil-producing multiparty autocracy, whereas the corresponding number is as high as 61 percent for a country where 20 percent of GDP is derived from oil.

Table 3: OLS Regression on the Incumbent-Candidate/Party Vote Share

<table>
<thead>
<tr>
<th></th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DV:</strong></td>
<td>Support for government</td>
<td>Support for government</td>
<td>Support for largest</td>
<td>Support for largest</td>
</tr>
<tr>
<td></td>
<td>presidential candidate</td>
<td>presidential candidate</td>
<td>government party</td>
<td>government party</td>
</tr>
<tr>
<td><strong>Type of Election</strong></td>
<td>Presidential</td>
<td>Presidential</td>
<td>Parliamentary</td>
<td>Parliamentary</td>
</tr>
<tr>
<td>GDP Growth t-1</td>
<td>.089 (±.206)</td>
<td>.031 (±.205)</td>
<td>.429* (±.234)</td>
<td>.495** (±.245)</td>
</tr>
<tr>
<td>Inflation t-1</td>
<td>-.003* (±.002)</td>
<td>-.002 (±.002)</td>
<td>-.145* (±.076)</td>
<td>-.118 (±.072)</td>
</tr>
<tr>
<td>Absolute Majority Election</td>
<td>1.086 (±3.988)</td>
<td>1.909 (±3.817)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Average District Magnitude</td>
<td>-.000 (±.024)</td>
<td>-.009 (±.032)</td>
<td>-.045* (±.027)</td>
<td>-.045* (±.026)</td>
</tr>
<tr>
<td>Ethnic Fractionalization</td>
<td>-6.947 (±10.410)</td>
<td>-7.162 (±10.697)</td>
<td>-1.771 (±5.418)</td>
<td>.759 (±5.503)</td>
</tr>
<tr>
<td>FDI t-1</td>
<td>.024 (±.126)</td>
<td>.141 (±.136)</td>
<td>.152 (±.165)</td>
<td>-.192 (±.164)</td>
</tr>
<tr>
<td>Exports t-1</td>
<td>-.057 (±.135)</td>
<td>-.055 (±.132)</td>
<td>.101*** (±.033)</td>
<td>.125*** (±.032)</td>
</tr>
<tr>
<td>Oil/GDP t-1</td>
<td>53.814** (±24.975)</td>
<td>43.406*** (±15.062)</td>
<td>40.376 (±29.190)</td>
<td>32.975** (±14.582)</td>
</tr>
<tr>
<td>Level of Democracy t-1</td>
<td>-3.975*** (±.847)</td>
<td>–</td>
<td>-2.656*** (±.878)</td>
<td>–</td>
</tr>
<tr>
<td>(Oil/GDP) t-1*Level of Democracy t-1</td>
<td>-6.950* (±4.143)</td>
<td>–</td>
<td>-3.637 (±3.533)</td>
<td>–</td>
</tr>
<tr>
<td>Constant</td>
<td>70.687 (±9.493)</td>
<td>49.717 (±7.527)</td>
<td>58.928 (±9.679)</td>
<td>40.255 (±5.043)</td>
</tr>
<tr>
<td>N elections</td>
<td>250</td>
<td>250</td>
<td>355</td>
<td>355</td>
</tr>
<tr>
<td>N countries</td>
<td>65</td>
<td>65</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>R2</td>
<td>.345</td>
<td>.275</td>
<td>.365</td>
<td>.335</td>
</tr>
</tbody>
</table>

**p<.01 **p<.05 *p<.10
Note: Entries are OLS regression coefficients; robust standard errors clustered by country are given in parentheses.
Models 5 and 6 show no significant results regarding oil as a factor that decreases competitiveness in parliamentary elections held in parliamentary systems. We do not believe that these findings should be interpreted as evidence that oil affects presidential elections differently than parliamentary elections. Neither do we believe that these results put H1 into doubt. The sample of oil-dependent parliamentary autocracies is very close to an empty set: it includes only six multiparty authoritarian parliamentary elections in countries where more than 10 percent of the GDP was derived from oil (Albania, 1992; Angola, 2008; Malaysia 1978, 1982, 1986, and 1990). The absence of parliamentary oil-producing autocracies makes it difficult to study the effect of oil on electoral competitiveness in parliamentary regimes.

All in all, the results lend strong support to the notion that oil reduces the level of competitiveness in authoritarian regimes – regardless of whether we think of democracy as a continuous or dichotomous concept or whether we study competitiveness as support for the incumbent party or as the likelihood of turnover.

Note: Lines show the predicted vote share in the first round for the incumbent party/candidate for democracies and autocracies (according to the classification by Wahman et al. 2013); the colored areas illustrate the 90 percent confidence level.

Source: Authors’ compilation.

14 Angola is here classified as parliamentary due to the absence of presidential elections after 1992. According to the new constitution of 2010, Angola has officially abolished presidential elections and can thus be considered a parliamentary system.
4 Oil and Subnational Electoral Competition in Nigeria

Nigeria is a useful case for studying the subnational relationship between oil and electoral competitiveness: The economy is extremely oil dependent, and oil revenues vary across subnational units. As a federal state, Nigeria regularly holds elections nationwide and in the 36 federal states.

Despite its return from military rule and regular elections since 1999, Nigeria has never managed to become a full democracy. The incumbent People’s Democratic Party (PDP) has won all four national elections since the reintroduction of multipartyism. It has managed to win a majority of the seats in both the senate and the lower house in every election, and the party’s presidential candidate has secured comfortable victories in the presidential race (winning between 59 and 70 percent of the vote). Several elections have been highly controversial. Accusations of widespread election fraud have been frequent and election-related violence, both before and after elections, has been commonplace (e.g. Rawlence and Albin-Lackey 2007; Onapajo 2014). Although far from perfect, the 2011 election was generally regarded as a step forward, particularly in relation to the severely manipulated 2007 contest (Odion Akhaine 2011). The 2011 election also exhibited higher levels of competitiveness, as the opposition made inroads in several parts of the southwest and north of the country, while the PDP and its presidential candidate, Goodluck Jonathan, remained strong in the predominantly Christian southern region (Lewis 2011). It has been argued that PDP’s dominance can be attributed largely to its ability to incorporate counter-elites and build multiethnic coalitions. The creation of such broad-based coalitions has been facilitated by the incumbent party’s access to oil revenues (Suberu 2007; Kendhammer 2010). Moreover, oil resources are regularly used on several levels in the PDP electoral machinery (Lewis 2011).

Oil (and gas) production in Nigeria began in 1957, three years before the country achieved independence in 1960. The Economist Intelligence Unit has estimated that as of early 2014 Nigeria produced approximately 1.9 million barrels a day. The US Energy Information Administration reports that Nigeria’s oil reserves amount to more than 27 billion barrels. Since the early 1970s Nigeria has become highly dependent on oil exports, which make up more than 90 percent of its total exports. All petroleum production and exploration takes place through joint ventures between foreign multinational corporations, the Nigerian federal government, and the nationalized parastatal, the Nigerian National Petroleum Corporation (NNPC). Since 1990 the government budget has relied up to more than 70 percent on oil revenues each year (Kappel 2011: 144), and often up to more than 80 percent (Koos and Pierskalla, forthcoming).

Figure 3 shows the distribution of Nigerian oil fields and oil wells. The map shows the concentration of the oil industry in the southeastern Niger Delta region, with most of the oil production coming from the Bayelsa, Delta, and Rivers federal states, and also to a smaller extent from Abia, Akwa Ibom, Edo, and Imo. The distribution of oil revenues has been contested since the early days of Nigerian independence. The Biafran war (1967–1970), in which
the southeastern region failed to secede from Nigeria, was partly fought over oil. Since the 1990s, tensions in the Niger Delta have often resulted in violence, as a number of the region’s minority ethnic groups have displayed their disappointment over resource distribution, particularly the Ogoni and the Ijaw. Since the return to multiparty rule following the repressive military rule of Sani Abacha, the federal Nigerian government has introduced a redistribution scheme that specifies the amount of revenues that accrue to the federal government and the 36 individual states. In 2013, the federal government received 235.02 billion NGN (52.7 percent), the state governments received 119.20 billion NGN (26.7 percent), and the local governments received 91.9 billion NGN (20.6 percent). In addition, a total of 52.30 billion NGN, representing a 13 percent derivation revenue (from oil), was shared among the nine oil-producing states.¹⁵

Elections in the oil-rich Niger Delta have been especially problematic. In 2003, the ruling PDP co-opted local militant groups to intimidate the opposition in Bayelsa, Rivers, and Delta states. Such co-optation was enabled by the total economic dominance of the state governors and their immediate allies, who derived their resources not only from the formal derivation of oil income but also from the undocumented tapping and selling of crude oil (oil bunkering). Local militias in the Niger Delta have in several cases been given control over oil-bunkering routes in exchange for supporting the governors and their political allies (Eberlein 2006).

According to Kendhammer (2010: 67), the PDP tolerates economic ties between local militants and political candidates in the Niger Delta region as it realizes that losing control over the region to the opposition would challenge the status quo in terms of the federal oil-revenue-sharing agreements. In the 2007 election, armed militants were seen stealing ballot boxes in a blatant exhibition of election fraud, and according to data from the Afrobarometer, the number of voters in the Niger Delta who reported being subjected to electoral violence or intimidation was three times higher than the national average (Bratton 2008).

¹⁵ For more details see online: <https://www.premiumtimesng.com/oilgas-reports/faac-reports/159583-faac-report-revenue-allocation-states-lga-january-2014-shared-february-2014.html#sthash.eJmD7NPg.dpuf>.
4.1 The Subnational Research Design

To test the subnational effect of oil production on electoral competitiveness in Nigeria, we rely on constituency-level election results from the 2011 gubernatorial, senatorial, and lower-house elections. Using the results from all the different types of subnational elections allows for a robust test of our hypothesis. However, our ability to make statistical inferences from the gubernatorial election is limited given the small number of observations (election data is only available for 31 states). Ideally, we should also have included earlier elections in our data set. However, the Nigerian electoral commission, like many other African electoral authorities, has historically failed to publish detailed constituency-level election results (Fridy 2009). In total, our analysis includes 31 gubernatorial, 95 senatorial, and 322 lower-house elections.

Given the hierarchical structure of the data, with lower-house and senatorial constituencies clustered geographically within states, we analyze the data for the lower-house and senatorial
elections using two-level mixed-effects multilevel OLS regressions. Failing to acknowledge the multilevel structure of the data would increase the risk of model misspecification and underestimate the standard errors, thereby increasing the risk of type-I errors. It is fair to assume that certain unobserved state-specific factors, not captured by the general parameters in the model, will have a systematic effect on the baseline competitiveness in a specific state (Steenbergen and Jones 2002). Acknowledging the multilevel structure is especially important as most of the oil production is concentrated in the Niger Delta region.

4.2 Subnational Data

The paper uses a newly compiled data set of constituency-level results from the 2011 election. The data has been obtained from the Independent National Electoral Commission’s website. For the subnational analysis we use the same continuous operationalization of competitiveness as in the cross-national analysis: vote share for the incumbent party. In this analysis the incumbent party is not the national incumbent party (that is, the PDP) but rather the party that won the last election in a given constituency. We rely on this operationalization rather than on the turnover operationalization also used in the cross-national test because the variation in turnover is limited for the smaller samples and because we do not have to account for differences in electoral institutions.

To account for oil production in a specific state, senatorial, or lower-house constituency, we rely on the geocoded oil-production data provided by Koos and Pierskalla (forthcoming). The data set includes georeferenced data on the location of Nigerian oil fields and oil wells (producing and nonproducing). For each constituency we count the number of oil fields and producing oil wells within its boundaries. The shape file for constituency boundaries was produced based on publicly available shape files of the Nigerian local government areas (LGAs) in combination with information on how the LGAs aggregate into lower-house and senatorial constituencies.17 Admittedly, counting the number of oil fields and oil wells is a rather rough proxy for oil production. A preferable operationalization would have been to use subnational oil revenue data similar to that used for the cross-national analysis. However, such data are not made publicly available, and certainly not beyond the federal level, and the current research design allows for a conservative test of H2.

We also include three control variables in our analysis. First, we control for population density. A growing literature on African voting behavior has been concerned with urban/rural voting dynamics and has argued that incumbents in Africa have been more successful in winning and maintaining support in rural areas (Koter 2013). Population density is, hence, an approximation of urbanization.18 Similarly, voters have also been hypothesized to be more autonomous and mobile in more economically developed and modernized areas (Weghorst

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16 Information from the website of the Independent National Electoral Commission.

17 Information from the ReclaimNaija website.

18 We use the square root of density, as the effect of density is likely to diminish as we approach more extreme levels.
and Lindberg 2013). We use data on a constituency’s level of electrification to measure economic development. Electrification is measured as the share of households with electricity in their home. The data on population density and electrification is taken from the 2008 population census. We use data from the LGA enumeration areas to create aggregates for lower-house and senatorial constituencies. Lastly, we also control for religious homogeneity. As ethnicity and religion remain sensitive issues in Nigeria, data on these aspects are not captured in the modern national censuses. Instead, we have had to rely on the data from the 1963 census, the most recent source with information on religion. In a recent paper, Ostien (2012) aggregated these religious data to create state aggregates in accordance with contemporary state boundaries. Unfortunately, we do not have access to constituency-level aggregates. Homogeneity is calculated as the fraction of the population belonging to the state’s largest religious group (Muslim or Christian) subtracted from the fraction of the population belonging to the state’s second-largest religious group (Muslim or Christian). Admittedly, given substantial migration, this is a rather limited operationalization, but we still believe that including the proxy is preferable to leaving out religious composition all together.

4.3 Subnational Results

Our study of subnational variations in electoral competitiveness relies on data from gubernatorial, senatorial, and lower-house elections in Nigeria in 2011. Although we do expect a strong relationship between oil production and incumbent support in state elections, a severely limiting factor is the low number of observations. Due to some severe problems in a number of state elections, the Nigerian electoral commission only released detailed election results for 31 of the 36 states.19 This is admittedly on the lower side for statistical inference. However, the number of observations increases in the models studying the senatorial (N=95) and lower-house (N=322) elections. As these elections are nested in states, we rely here on multilevel OLS regressions with random intercepts. To calculate the effect of oil production we count the number of oil fields and active oil wells in a geographic area. As a robustness test we have also modeled oil production including nonproducing wells, as wells that were previously producing might also have enriched state coffers. Changing the operationalization does not substantially alter the results.

Table 4 presents our results for the gubernatorial elections. The only variable in the model with a significant coefficient is oil production. For every additional well or oil field the support for the incumbent party increases by 0.2 percent. This may not sound like a substantial effect. However, if we rerun the model with a dichotomous indicator for oil production (that is, whether the state produces or does not produce oil), we note that the expected support for the incumbent is 32 percentage points higher in oil-producing states than in non-oil-producing states.

19 Data on the gubernatorial elections in Benue, Ekiti, Kogi, Ondo, and Osun were not available. However, the results from most lower-house and senatorial elections within these states were available.
Table 4: OLS Regression on the Vote Share for the Incumbent Governor’s Party

<table>
<thead>
<tr>
<th>DV: Population Density (Square root)</th>
<th>(8) Incumbent Support – Gubernatorial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population Density (Square root)</td>
<td>-.003</td>
</tr>
<tr>
<td></td>
<td>(.005)</td>
</tr>
<tr>
<td>Religious Homogeneity</td>
<td>.091</td>
</tr>
<tr>
<td></td>
<td>(.136)</td>
</tr>
<tr>
<td>Electrification</td>
<td>-.237</td>
</tr>
<tr>
<td></td>
<td>(.289)</td>
</tr>
<tr>
<td>Oil Production</td>
<td>.002*</td>
</tr>
<tr>
<td></td>
<td>(.001)</td>
</tr>
<tr>
<td>Constant</td>
<td>.615***</td>
</tr>
<tr>
<td></td>
<td>(.134)</td>
</tr>
<tr>
<td>N</td>
<td>31</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>.058</td>
</tr>
</tbody>
</table>

*** p<.01 **p<.05 *p<.10  
Note: Entries are OLS regression coefficients; standard errors are given in parentheses.

To further test the importance of state-level oil production, the models in Table 5 use the support for the incumbent governor’s party in senatorial and lower-house elections as the dependent variable. Note that the governor’s party is not necessarily the same as the party of the incumbent MP or senator. The models are multilevel OLS regressions with two level-1 variables (population density and electrification) and two level-2 variables (religious heterogeneity and state oil production). It is highly plausible that state-level oil resources can be used to create local party hegemons, where resource-rich governors diffuse resources to party members running for other offices within their state. The results in Table 5 support this idea. There is a significant relationship between the support for the governor’s party and state oil production in both senatorial and lower-house elections. These results back up the results of Table 4 as they show a relationship between governor-party support and oil production, without the severe limitations of Model 8’s small sample.

Table 6 shows the results for our multilevel regression of senatorial and lower-house elections. Looking at Model 11, we find a strong correlation between incumbent-senator support and oil production (significant at the 1 percent level). The expected support for the incumbent senator’s party increases by 0.2 percentage points for every additional well or field. Likewise, we find a significant and positive relationship between support for the incumbent’s party in lower-house elections and oil production.
Table 5: Random-Intercept Mixed-Effects OLS Regression on Vote Share of Governor’s Party

<table>
<thead>
<tr>
<th>DV:</th>
<th>(9)</th>
<th>(10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incumbent Support – Senatorial</td>
<td>-.000 (.000)</td>
<td>.001 (.000)</td>
</tr>
<tr>
<td>Incumbent Support – Lower House</td>
<td>.054 (.085)</td>
<td>.032 (.069)</td>
</tr>
<tr>
<td>Population Density (Square root)</td>
<td>-.212** (.104)</td>
<td>-.291*** (.053)</td>
</tr>
<tr>
<td>Religious Homogeneity</td>
<td>.003** (.001)</td>
<td>.004** (.002)</td>
</tr>
<tr>
<td>Electrification</td>
<td>.500*** (.064)</td>
<td>.535*** (.044)</td>
</tr>
<tr>
<td>Oil Production</td>
<td>.123*** (.023)</td>
<td>.117*** (.017)</td>
</tr>
<tr>
<td>Constant</td>
<td>.134*** (.012)</td>
<td>.162 (.007)</td>
</tr>
<tr>
<td>State Variance Component</td>
<td>95</td>
<td>322</td>
</tr>
<tr>
<td>Constituency Variance Component</td>
<td>34</td>
<td>36</td>
</tr>
<tr>
<td>Log Likelihood</td>
<td>35.471</td>
<td>98.897</td>
</tr>
</tbody>
</table>

*** p<.01 ** p<.05 * p<.10
Note: Entries are OLS coefficients with standard errors in parentheses. The analysis is estimated as a two-level model with random intercepts and constituencies clustered by state.

All in all, the results in models 8 to 12 show strong support for the hypothesis that oil revenues decrease electoral competitiveness, not only cross-nationally but also subnationally. In the models above we show a statistically significant and negative relationship between oil production and electoral competitiveness for three different types of subnational Nigerian elections. An important caveat to the findings is that the subnational results are limited in terms of generalizability. More research on how oil affects local competitiveness in other oil-producing states is needed. It is also important to note that Nigeria’s system for the local redistribution of oil revenues is relevant in understanding how oil affects local competitiveness in this particular case.
5 Conclusion

Several authors have researched the relationship between oil and democracy (e.g. Ross 2001; Jensen and Wantchekon 2004; Ulfeder 2007). These studies have contributed greatly to our understanding of the political economy of democracy and autocracy. However, previous work on the rentier state has been largely insensitive to the “institutional turn” in authoritarianism research (Pepinsky 2014), neglecting the global surge of multiparty autocracies since the end of the Cold War. Consequently, no systematic research has been carried out on how oil revenue affects electoral contests in nondemocratic regimes. In this study we combine theories on the rentier state with theories on multiparty authoritarianism to study the effect of oil on electoral competitiveness in multiparty autocracies. We argue that oil revenues strengthen the position of incumbent authoritarian parties and reduce electoral competitiveness. Oil production provides a steady, state-controlled, and nontransparent resource stream, thereby enhancing incumbent–opposition resource asymmetries. The adverse effect of oil on electoral competitiveness should be evident not only nationally but also subnationally in oil-producing regions. Similarly to their national counterparts, local incumbents can use resources from oil extraction to outspend opposition candidates in election campaigns, co-opt counter-elites, manipulate elections, repress opposition, and maintain the support of their own ruling coalition.
In this paper we have studied both the cross- and subnational effects of oil production on electoral competitiveness. In our cross-country sample, we have studied all multiparty regimes from 1975 to 2010 and have found that oil dependence impedes electoral competition in multiparty autocracies but not in democracies. Turnovers are less common and electoral support for the incumbent is higher in multiparty autocracies that are heavily dependent on oil. Looking at the subnational elections in Nigeria, a multiparty regime that has never managed to develop into a democracy, our analysis has confirmed that the cross-national dynamics also transfer to the subnational level. Incumbent governors, senators, and members of parliament tend to receive higher vote shares in oil-producing subnational units. These quantitative findings confirm earlier observations from numerous narratives on Nigerian elections, thereby highlighting the democratic deficiencies in oil-producing regions.

Our findings might be interpreted as bad news for oil-producing states stuck in the gray zone between democracy and autocracy. The results suggest that the transition to multipartyism does not put an end to the “resource curse.” Authoritarianism is likely to remain more robust in oil-producing multiparty autocracies, as incumbents can continue to use oil resources to stabilize the regime, even after opening up the electoral arena. However, there is also potentially good news. As several new democracies, especially in Africa, have only recently discovered oil, they have entered into the community of oil-producing countries with significantly stronger political institutions than earlier third-wave oil producers who discovered oil before democracy. In countries like Ghana and Kenya it is hence highly feasible that oil will not impede democracy in the same way it has in Russia and Angola. Scholars should pay close attention to political developments in these new oil-producing countries.

The subnational findings can also be regarded in a potentially optimistic light. The evidence from Nigeria suggests that incumbents tend to dominate the political sphere in oil-producing localities but are less efficient at securing political dominance in non-oil-producing areas. Oppositional parties can, hence, find pockets of space that are less reliant on oil and have more diversified economies where they can grow stronger. Such developments have already taken place in Nigeria, where the opposition has made major inroads in the non-oil-producing northern and southeastern regions.

Elections in multiparty autocracies are still largely understudied; thus, we need much more information on the inner workings of these contests (Gandhi and Lust Okar 2009). We need more knowledge about how elections are controlled and how the political economy affects electoral competitiveness. This is especially true at the subnational level. More research is required to systematically study whether the dynamics observed cross-nationally can also explain within-country variations in democracy and electoral competitiveness. The subnational phenomenon of “electoral rentierism” needs to be studied in other countries to confirm or modify our findings.
Bibliography


## Appendix

### Table A1: Logistic Regression on Turnover (split sample)

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<tr>
<th>DV:</th>
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<th>(14)</th>
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<tbody>
<tr>
<td>Presidential Election</td>
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<td>.212 (.278)</td>
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<tr>
<td>GDP Growth t-1</td>
<td>-.041 (.039)</td>
<td>-.054* (.031)</td>
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<tr>
<td>Inflation t-1</td>
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<td>.000 (.000)</td>
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<tr>
<td>FDI t-1</td>
<td>-.032 (.047)</td>
<td>.025 (.027)</td>
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<td>Exports t-1</td>
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<td>-.010 (.006)</td>
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<td>Africa</td>
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<td>-.846 (.659)</td>
</tr>
<tr>
<td>Postcommunist</td>
<td>-.806** (.410)</td>
<td>1.260*** (.321)</td>
</tr>
<tr>
<td>Ethnic Fractionalization</td>
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<tr>
<td>Level of Democracy t-1</td>
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<td>-.096 (.151)</td>
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<tr>
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<td>.533 (1.156)</td>
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**p<.01  *p<.05  *p<.10  
Note: Entries are logistic regression coefficients; robust standard errors clustered by country are given in parentheses.
Table A2: OLS Regression on the Incumbent-Candidate/Party Vote Share (split sample)

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<td>Type of Election</td>
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<td></td>
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<td>(.549)</td>
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<tr>
<td>Inflation t-1</td>
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<td>-.001</td>
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<td></td>
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<td>(.003)</td>
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<td>Absolute Majority Election</td>
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<td></td>
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<td></td>
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<td></td>
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*** p<.01 **p<.05 *p<.10  
Note: Entries are OLS regression coefficients; robust standard errors clustered by country are given in parentheses.
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