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Testing the chain of relations between oil wealth, mobilization and democracy in Africa, 1990-2014

Master's thesis in MPOL
Supervisor: Charles Butcher
June 2019

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Abstract:

The claim that oil impedes democracy has reached near consensus among scholars. However, how oil impedes democracy remains a question of debate. This paper applies causal mediation analysis to test if the relationship between oil and gas wealth and democracy in Africa in 1990-2014 runs through depressed mobilization. Using the civil society effect, which occurs when oil rich countries use the largesse of their wealth to stifle or suppress organizations that might favour democratization (Ross, 2009), as a theoretical point of departure and a new dataset from the Anatomy of Resistance Campaigns project on the organizational composition of resistance campaigns in Africa, 1990-2014, this paper is the first to provide empirical testing of the chain of relations between oil wealth, actualized mobilization and democracy. To measure mobilization, I apply two different operationalizations: i) the number of organizations that participate in maximalist dissent in a given country-year, and ii) the participation of a trade union in maximalist dissent in a given country-year. The results from the mediation analyses suggests that the relationship between oil and democracy does not run through depressed mobilization.

Abstrakt:

Påstanden om at olje hindrer demokratisering, har oppnådd nær konsensus blant forskere. Hvordan olje forhindrer demokratisering, er fortsatt et ubesvart spørsmål. Denne artikkelen anvender kausal mediasjonsanalyse for å teste om forholdet mellom olje- og gassrikdom og demokrati i Afrika i 1990-2014 medieres av hemmet mobilisering. Ved å benytte sivilsamfunn-effekten, som oppstår dersom oljerike land benytter rikdommen sin til å undertrykke eller dempe organisasjoner som foretrekker demokratisering (Ross, 2009), og et nytt datasett på afrikanske motstandskampanjers organisatoriske sammensetning i perioden 1990-2014 fra Anatomy of Resistance Campaigns-prosjektet, tilbyr denne studien den første empiriske testingen av det kausale forholdet mellom oljerikdom, aktualisert mobilisering og demokrati. Jeg måler aktualisert mobilisering på to måter: i) antallet organisasjoner som deltar i motstand mot regime i løpet av et år, og ii) om en fagforening har deltatt i en motstandskampanje i løpet av året. Resultatene fra mediasjonsanalysen tilsier at den negative effekten av olje på demokrati ikke medieres av hemmet mobilisering.

Preface

The process of writing this thesis has been an exciting journey, and at the completion of it, there are many people to whom I owe my gratitude. I would like to thank my supervisor Professor Charles Butcher for amazing counsel throughout the entire process, the opportunity to work with the ARC dataset, allowing me to join the Violence, Instability and Peace seminars to learn more about peace and conflict studies, and an unfathomable patience whenever my R scripts did not run and I had no clue about the reason why. I would also like to thank the participants at the Violence, Instability and Peace seminars for helpful comments on an early draft of this paper, and Professor Paasha Mahdavi for helpful comments on the oil data. All errors herein are my own.

I could not have completed this degree without the loving support of my family, so to mom, dad and Storm: thank you for your unparalleled love, for inspiring curiosity, and for always encouraging me to pursue my passions. To my dear friends whom I have shared a reading room with for the past year: Emilie, Heidi, Trine and Mia: thank you for the coffee breaks, spinning Tuesdays, cake Fridays and conversations. I will forever cherish our friendships. Finally, I would like to thank my partner Geir Haakon for all his love, support, and advice.

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1.0 Introduction

On the 16th of February 2019, the people of petroleum-rich Algeria took to the streets to protest the announcement of President Abdelaziz Bouteflika's candidacy for a fifth presidential term. President Abdelaziz Bouteflika, who had remained in office for nearly twenty consecutive years, was the only president to remain in power in North Africa after the Arab Spring in 2011. However, these protests, which would become known as the Smile revolution, ultimately led to the president's resignation. Algeria is no stranger to riots, demonstrations or strikes. After a drop in oil prices in the early 1980s, the country experienced a period of economic crisis and major riots in 1988 (Sandbakken, 2006). These events resulted in the tolerance of other political parties, the encouragement of civil society associations, and freedom of speech was improved by ending press censorship (Sandbakken, 2006: 140). However, as it became clear that the incumbent regime would be defeated by the Islamic Salvation Front in the upcoming election, the election was cancelled by the incumbent regime.

Algeria also experienced demonstrations during the Arab Spring, but president Bouteflika managed to curb the protests by promising reforms and wage increases. The wage increases were financed by oil and gas revenues. However, in the following years, Algeria's economy was hit hard by the global drop in oil prices and this led to a cut in state funded subsidies. In 2019, peaceful demonstrators took to the streets every Friday for six weeks before Bouteflika cancelled his bid for re-election. Finally, he resigned from office after pressure from the masses and the military. The failure to transition to democracy is not a story unique to petroleum-rich Algeria in Africa. In fact, should an African country be so unlucky to discover oil and gas, most political scientists would argue that the country would soon experience a curse. This curse would significantly decrease prospects for democratization. How this curse actually works is still a matter of debate in the discourse.

Several studies on the topic find that oil wealth blocks democratic transitions in authoritarian regimes. While development theory suggests that increased wealth, commonly measured as GDP per capita, aids the process of democratization, the effect is questionable when the wealth comes from petroleum revenues (Cochrane, 2007). The idea that oil impedes democracy can be traced back to Hussein Mahdavy (1970) who argued that petroleum revenues in the Middle East created an external source of income which made the government unaccountable to its citizens. Since then,

the relationship between oil wealth and regimes has been addressed in a vast body of literature. Most quantitative studies and case studies on the topic suggest that oil wealth thwarts democracy. Moreover, the relationship between oil and democracy has changed over time, and new studies find that oil wealth mainly became a hindrance to democratic transitions after the transformative events in the 1970s (Andersen & Ross, 2014). During these years, many African countries gained their independence, and in that process also expropriated and nationalized oil companies which enabled several developing countries to capture the revenues that was previously grabbed by foreign-owned companies (Ross, 2015; Mahdavi, 2014). During this period, Africa and the rest of the world experienced what has become known as the third wave of democratization. Movements promoting democracy gained strength and legitimacy all over the world, and many regimes experienced considerable liberalisation (Huntington, 1991: 21). This raises an interesting question: through what causal mechanisms did petroleum wealth become a hindrance to democratization in this period?

While the claim that oil impedes democracy through lowering the prospects for democratic transition in authoritarian regimes are by most researchers considered to be a matter of fact, there are many proposed causal mechanisms in the literature. The vast majority of studies on oil and democracy measure the aggregate effect of oil on democracy, although there are multiple causal mechanisms that are thought to drive this effect. These mechanisms have not been tested. Oil may have long-term effects on social structures, or it may shape the outcomes of dynamic bargaining processes between mobilized actors and regimes. One of the proposed mechanisms for the relationship between oil and democracy is the civil society effect. Michael Ross introduced the civil society effect as a proposed mechanism for the negative effect of oil wealth. The civil society effect occurs when the government uses their oil wealth to stifle or suppress independent civic organizations that might favour democratization (Ross, 2009). If this is true, it should be reflected in less organizations independent from the state participating in campaigns where the goal is to promote calls for regime change and secession or territorial autonomy, in addition to movements for the right to vote, and calls for elections. Following this, the purpose of this study is to answer the question: *Does the relationship between oil wealth and democracy in Africa run through depressed mobilization?*

To explain the emergence of democracies in Africa, many social scientists have favoured a structural approach to explain democratization, arguing that social patterns tend to persist beyond original conditions (Bratton & van der Walle, 1997: 20). By studying aggregate phenomena, these studies have a macroscopic perspective on the enduring features of society (Bratton & van der Walle, 1997). While such approaches are well suited to understand political continuities that prevail over time (Bratton & van der Walle, 1997: 23), they are less suited to explain short periods of rapid change such as the emergence of resistance campaigns. This has led social scientists to look at contingent models of democratization. A contingent model assumes that the actions of one political actor prompt a response from another political actor (Di Palma, 1990: 10), and political outcomes are a result of interaction and bargaining. In this paper, I test the relationship between oil wealth, the composition of resistance campaigns and democracy in Africa. If governments use revenues to stifle or supress independent organization that favour democratization (Ross, 2009), we should expect the composition of resistance campaigns to be smaller and have different actors compared to resistance campaigns in countries without petroleum wealth, ceteris paribus.

To bridge the gap between studies that show how oil impedes democracy and new knowledge on the role of mobilization, civil society organizations and nonviolent resistance in democratic transitions, this study combines structural and contingent approaches to explore the effect of oil wealth on democratization in Africa. Using the theoretical work of Michael Ross as a point of departure, this study provides new insight to the relationship between oil and democracy. Until now, this relationship has been difficult to test in a large-N analysis as there existed little data on the organizational-level features of resistance campaigns. With a new dataset from the ARC data project with data on distinct organizations engaged in a "maximalist" dissent in Africa from 1990-2014, this is now possible. An event is coded into the dataset if there is evidence of maximalist claims. Maximalist claims are defined as:

> … demands for changes in the political structure which, if implemented, would significantly alter the executive branch's immediate access to state power, the rules through which executives are selected, or the policy or geographic areas over which the executive has the right to exercise authority (Pinckney, Butcher & Braithwaite, 2018: 14).

Rulers who fear external deposition have an incentive to suppress such protests because if the people mobilize against the regime, they might succeed in overwhelming the power of the state (Bueno de Mesquita & Smith, 2011). This paper applies mediation analysis to test the chain of relations between oil wealth, mobilization and democracy. Model-based causal mediation analysis is a useful technique when we have identified that one variable affects another, and we want to study how the causal relationship arises. I apply the technique to test two different chain of relations between oil wealth, mobilization and democracy. Firstly, organizationally diverse coalitions in resistance campaigns are believed to increase the prospects for democratization because they increase the mobilization base which the campaign can draw upon, and they are harder to target for the regime (Chenoweth & Stephan, 2011). If governments in Africa use their revenues to stifle independent civil society groups, we should expect resistance campaigns in countries with oil wealth to be less diverse. To measure the diversity of resistance campaigns, I apply the number of organizations that participate in maximalist dissent in a given country-year as a proxy for the diversity of resistance campaigns.

Secondly, it is believed that the presence of certain type of actors in resistance campaigns significantly increase the prospects for democratization. If the relationship between oil and democracy runs through depressed mobilization, this should be reflected in the absence of key actors in events of maximalist dissent in African countries with petroleum revenues. In Africa, the labour movement spearheaded the fight against colonialism, and the leaders of protests were often members of trade unions (Mueller, 2018: 33). Compared to other organizations, trade unions have increased bargaining power because they have strategic positions in the economy which gives them leverage in political bargaining with the regime. They have a unique mobilization structure of unionized workers which they can draw upon to organize costly strikes. I therefore run a mediation analysis to test if the effect of oil on democracy in Africa is mediated through a lower probability of the participation of a trade union in maximalist dissent.

To test the relationship between oil wealth, mobilization and democracy, I employ a panel of data consisting of 49 African countries for each year from 1990-2014. After running the analyses, I find no significant average causal mediated effects and conclude that the link between oil and democracy does not run through actualized mobilizations measured as the number of organizations that participate in maximalist dissent, or the participation of a trade union in maximalist dissent.

1.1 Structure of thesis

This paper is structured as follows. In the first part of the paper, I define democracy and democratic transition. Secondly, I present a theory chapter where I draw upon to selectorate theory to explain why some states undergo democratic transition while others do not. Furthermore, I present previous literature on oil and democracy where I pay close attention to the stated causal mechanisms. Following this is a chapter on campaign dynamics and the role of civil resistance, before I present the civil society effect (Ross, 2009) and the hypotheses. Thirdly, I present a chapter on the research design and data where I discuss the model-based causal mediation design and present the data I use to test the hypotheses. Fourthly, I present the results from the mediation analysis and the robustness checks, before I discuss the findings and potential improvements for future analyses. Finally, I sum up the paper and present my conclusions.

1.2 Conceptualization

To examine the relationship between oil and democracy, we must start by defining the concept of democracy. In a minimalist sense, it can be perceived as an instrument for arriving at political decisions through a process where individuals acquire the power to decide through a competitive struggle for people's votes (Schumpeter, 2010/1942). The core of democracy is the electoral principle, which requires institutions for alternation in power, but the outcome of these alternation procedures is uncertain (Przeworski, 1991). By a maximalist definition, the concept also entails several rights and liberties that we expect to observe in a democracy, amongst them freedom of speech, the right for citizens to vote and run for office, freedom for ethnic minorities to practice their religion and culture, and legal equality for all citizens (Diamond, 2008). Moreover, a democracy also entails institutional checks on the power of elected officials, an independent judiciary, control over the military by civilians who are accountable to the people through elections and pluralism in information and forms of organization independent of the state (Diamond, 2008: 22).

To capture the electoral principle of democracy and the institutions that are necessary to secure this, this paper adopts V-Dem's definition of the electoral democracy:

> The electoral principle of democracy seeks to embody the core value of making rulers responsive to citizens, achieved through electoral competition for the electorate's approval under circumstances when suffrage is extensive; political and civil society organizations can operate freely; elections are clean and not marred by fraud or systematic irregularities; and elections affect

> the composition of the chief executive of the country. In between elections, there is freedom of expression and an independent media capable of presenting alternative views on matters of political relevance (Coppedge et al., 2018: 38).

This definition is chosen because these principles are believed to be essential elements of any other form of representative democracy (Coppedge et al., 2018: 38). Furthermore, it captures some of the most prominent challenges in many African elections. The Regional Dialogue on 'Emerging Trends and Challenges of Electoral Democracy in Africa' (2016) highlighted that African democracies were fragile, and leaders cling to power through manipulation of voters' lists and the delineation of voter districts. Moreover, armed forces continue to be a presence and influence in African elections (International IDEA Policy Dialogue, 2016). A transition to democracy in this paper should be understood as the process through which a regime transitions towards the ideal of the electoral democracy.

2.0 Theory

2.1 Why do some states transition to democracy while other do not

There are several theories that explain why states are authoritarian and why some undergo democratic transition while others do not. I draw upon selectorate theory as a starting point to explain the longevity of authoritarian rule, and especially the part of the literature that focuses on the role of resource wealth. Regime types can be considered a function of the relative size of the group of supporters the commander in chief needs to keep happy to remain in power. For an executive, the "political landscape can be broken down into three groups of people: the nominal selectorate, the real selectorate and the winning coalition" (Bueno de Mesquita & Smith, 2011: 4). The nominal selectorate is anyone who has any legal say in who becomes the leader, while the real selectorate is the group that actually chooses the leader (Bueno de Mesquita & Smith, 2011). The winning coalition can be defined as "the subset of the real selectorate … these are the people whose support is essential if a leader is to survive in office" (Bueno de Mesquita & Smith, 2011: 5). One may also think of the different groups as interchangeables, influentials and essentials. How freely a leader can operate on his own interests, depends on how the winning coalition and the selectorates interact, which again is a function of the relative sizes of these groups (Bueno de Mesquita & Smith, 2011: 8).

Autocrats experience two forms of threats: those that emerge from within the winning coalition and those that come from outsiders in the nominal selectorate (Ghandi & Przeworski, 2007: 1280). If a dictator is to survive in office, he needs to establish some form of power-sharing arrangement with the essentials to avoid internal deposition and keep his friends loyal (Magaloni, 2008). Hence, many autocrats rely on political institutions to broaden their basis of support, which in turn lengthens their tenures (Ghandi & Przeworski, 2007). These institutions are maintained for two reasons: i) to mobilize cooperation which is necessary to generate resources for the regime, and ii) to stop the danger of rebellion if the opposition is threatening (Ghandi & Przeworski, 2006: 21). Many of these institutions bear names that we expect to see in a democracy, for instance parties, legislatives or elections (Ghandi & Przeworski, 2006).

Governments obtain resources from two sources: a) taxation on productive economic activities, and b) free goods which are resources the executive can access independent of the citizens' willingness to engage in the economy (Smith, 2008: 780). Mineral resources, and particularly oil and gas, are resources that can be extracted without engaging many people from the local population (Ross, 2015). Following previous studies, this paper argues that the availability of oil and gas revenues changes a dictatorship's need for co-optation to generate resources (Mahdavy, 1970; Huntington, 1991; Ghandi & Przeworski, 2006). We should expect the dynamics between the nominal selectorate, the real selectorate and the winning coalition to be different in countries with petroleum wealth compared to countries with little or no petroleum wealth because of differences in the dependence on cooperation of broad sectors of society to maximize the state's revenues (Ghandi & Przeworski, 2006: 18).

Following this, the magnitude of the threat of rebellion is different for different dictators, and oil wealth can give autocrats the opportunity to dampen social pressure when necessary and decrease the risk of rebellion. An executive can use the stream of revenues from oil and gas to keep the essentials happy, lowering the probability of internal deposition (Bueno de Mesquita & Smith, 2011) and when required; on programs set off to depoliticize the citizens (Chaudry, 1994). A few studies on the topic find a significant relationship between oil and increased social spending (Ghandi & Przeworski, 2006; Morrison, 2009). Ghandi and Przeworski (2006) find that availability of mineral resources increases public sector wages as a proportion of GDP.

Previously in this paper, I discussed how the former Algerian President Abdelaziz Bouteflika used oil and gas revenues to fund wage increases in times of turbulence. Another example of how dictators can use oil and gas revenues to prolong their rule is the Republic of Cameroon. Former President Ahmadou Ahidjo kept his country's oil revenues in a personal bank account offshore and spent the money as he saw fit during the course of the year (Bratton & van der Walle, 1997: 67). His successor President Paul Biya has since 1982 spent state resources on public patronage, rigged elections and to limit the activities of the opposition (Freedom House, 2018a). In oil rich Angola, former president José Eduardo dos Santos was able to solidify his power due to increased oil revenues in a period when the opposition promoted demands for constitutional reforms. The progress towards constitutional reforms and elections was stalled in 2005 when dos Santos withdrew his original affirmation to holding an election in the following year. The increased income from oil enabled the administration to reject attempts to impose political reforms from the opposition parties (CQ Press, 2007: 65). As a result, dos Santos and the administration successfully delayed elections until 2007. Dos Santos left office in 2017, but the revenues from the state oil company Sonangol which his daughter was in charge of, funded a patronage system that ultimately kept dos Santos in power for nearly forty years (Freedom House, 2018c).

A successful dictator always puts the wants of the essentials before the needs of the people because of the risk of internal deposition. This is quite logical, as a dictator would not be a dictator if he knew that he had the support of the majority of the people (Ghandi and Przeworski, 2006). This creates a conflict between the elites in power and the people who are excluded from power. Milan Svolik labels this "the second problem of authoritarian rule" (Svolik, 2012). To gain access to state resources, the people need to engage in a process of bargaining with the regime. Civil society organizations play a key role in these bargaining situations, and if the bargaining fails; these organizations are the ones who articulate claims and organize and coordinate large-scale action (Cunningham et al., 2017).

If the people decide to mobilize against the regime and promote maximalist claims, they might succeed in overwhelming the power of the state (Bueno de Mesquita & Smith, 2011: 195). The magnitude of rebellion will affect the actions of the dictator and his incentives to credibly commit to his promises (Bueno de Mesquita & Smith, 2011). Moreover, mass protests can reveal information about the true preferences of the citizens in a repressive regime which can create a

signalling effect to other citizens (Garfias & Magaloni, 2018). Hence, every dictator has an incentive to avoid protests if possible. This paper examines if the effect of oil wealth on democracy can be explained by differences in actualized mobilization by examining differences in the number and types of actors in civil resistance campaigns. Previous research on oil and democracy has argued states with oil wealth can use the largesse of their income to forestall the formation of civil society organization that can articulate claims and coordinate large scale action (Ross, 2009). In the next section I lay out existing literature on the effect of oil wealth on democracy, paying close attention to the stated causal mechanisms.

2.2 Previous research on oil and democracy

The effect of resource wealth on democracy has been addressed in a vast number of studies over the last forty decades. The results suggest that states that receive substantial amounts of external rents, often referred to as "rentier states" (Mahdavy, 1970: 428), are less wealthy, less democratic and less peaceful (Ross, 2012). These political and economic ailments constitute what is commonly referred to as the resource curse. As presented in the introduction, quantitative studies find evidence for the claim that oil impedes democracy. However, the question of causality remains debated and insufficiently tested. If oil is negatively related to democracy, what is the mechanism? Perhaps the most classical explanation is that oil revenues decrease the government's need to tax the population in order to collect money to secure political survival (Mahdavy, 1970). The revenues that come from oil production encourage a rent-seeking behaviour where the state becomes a honeypot, and different interests compete to capture a significant portion of these resources (Karl, 2007). Consequently, states where the production of wealth does not depend on the population should be less accountable to the demands of the population. Huntington popularized this idea, and added a notion on how this should change the behaviour of the public in states with high oil revenues:

> Oil revenues accrue to the state: they therefore increase the power of the state bureaucracy and, because they reduce or eliminate the need for taxation, they also reduce the need for the government to solicit the acquiescence of the public to taxation. The lower the level of taxation, the less reason for publics to demand representation (Huntington, 1991: 65)

In Nigeria, it is believed that low levels of taxation following the oil-boom in the 1970s weakened political participation and discouraged commitment to the discussion of policy issues, but there is

little evidence to suggest that increased taxation was followed by political mobilization (Sandbakken, 2006: 142). However, because non-oil tax revenues were neglected and public expenditure increased after the oil boom in the 1970s, Nigeria like many other petroleum-rich countries in Africa found themselves outspending their revenues. Moreover, due to the rent-seeking behaviour and political manipulation of economic policies, corruption was at such a high level that in the 1990s it led to the disappearance of oil revenues worth as much as a tenth of GDP each year (Bratton & van der Walle, 1997: 67). We should expect the largesse of the population (the interchangeables) to favour a reallocation of the resource wealth which benefits the many. Independent civic organizations play a key role to promote demands of reallocation, to demand answers from rulers who neglect this and to organize resistance when attempts to capture the wealth fail (Diamond, 2008). These demands diverge from the interests of a dictator, who needs to keep his key supporters happy by funnelling favours their way, while at the same time ensuring that his personal power exceeds potential challengers.

While political scientists had for many years believed that oil wealth had been linked to lower levels of democracy, Michael Ross was one of the first scholars to specifically test the relationship between oil and democracy in a large-N analysis in his seminal paper from 2001. Using data for all sovereign states with a population over one hundred thousand between 1971 and 1997, he constructs a model to predict regime types, which is measured using data derived from the Polity98 data set constructed by Gurr and Jaggers (Ross, 2001: 337). In this model, oil is included as an independent variable measured as the "export value of mineral-based fuels as a fraction of GDP". He finds that a higher fraction of oil wealth significantly and substantively predicts lower levels of democracy. Moreover, Ross introduces three potential causal mechanisms linking oil to democracy: i) the rentier effect, ii) a repression effect and iii) the modernization effect.

The rentier effect occurs when governments use oil revenues to relieve pressures that otherwise might have led to an increased demand for greater accountability (Ross, 2001: 332). Ross describes three ways that this may occur. The first one is the taxation effect, suggesting that oil wealth lowers tax levels and makes the government less accountable to its citizens. The second component is the spending effect, which suggests that oil wealth can lead to greater spending on patronage and thus "dampen the latent pressures for democracy" (Ross, 2001: 333). Ross labels the final component the 'group formation effect'. This effect occurs when governments gain enough revenues from

petroleum, they can use the largesse to prevent the formation of groups that would otherwise favour democracy. These three components constitute the rentier effect, and together they show how a state's fiscal policies influence the regime type (Ross, 2001: 335)

Secondly, the repression effect occurs when oil rich states used their resources on internal security to block any attempts to achieve democratic transition (Ross, 2001: 335). Ross argues that this happens for two reasons: i) oil wealth increases the opportunity to protect oneself from popular uprising and deposition, and ii) the location of production fields can create tension if it is concentrated in a region populated by ethnic or religious minorities because different actors will compete for the mineral wealth (Ross, 2001: 336). If the latter is true, increased military spending in petro-states could be a symptom of increased conflict levels. Several studies find a positive relationship between oil and civil war (de Soysa, 2002; Fearon & Laitin, 2003; Collier & Hoeffler, 2004). If states with oil wealth are more likely to experience civil war, this suggests that bargaining between the incumbent regime and domestic political actors are different in petroleum rich states compared to states with little or no petroleum wealth.

Finally, the modernization effect occurs when resource-led growth does not lead to social and cultural changes associated with democratic transitions such as higher education levels, urbanization and more occupational specialization (Ross, 2001: 336). If the citizens are more educated and gave a higher degree of occupational specialization, the public becomes more articulate, better equipped to organize and communicate with each other, and the people develop skillsets that enhances their bargaining power against elites (Ross, 2001: 336). Drawing on local-level evidence from 42 African countries from 1990-2012, Wig and Dahlum find that education increases the frequency of mass protest, particularly in autocracies (Dahlum & Wig, 2019).

One problem with Ross' (2001) article is that the independent variable "oil" measured as export value as a fraction of GDP, does not measure oil wealth, but oil dependence. Ross has addressed this issue in later studies (Ross, 2006; Ross, 2012; Ross, 2015). This operationalization is probably biased in favour of the argument. Poor and conflict-prone countries are too impoverished to consume the fuel they produce and are therefore more likely to export the fuel (Ross, 2015: 242). For instance, the United States produces more oil than Nigeria, but while the United States consumes its oil domestically, Nigeria is a big oil-exporter (Ross, 2015: 242). Aslaksen (2010) addresses the operational issues in her study on oil and democracy. She applies two measures for

oil: i) oil extraction as a percentage of GDP and ii) oil income per capita. In addition to using alternative measures for democracy to check for robustness, she finds empirical support for the claim that oil impedes democracy using either operationalization (Aslaksen, 2010).

Another approach to operationalize oil wealth was made by Kevin Tsui. Tsui (2011) examines the long-term effect of oil wealth on democracy using worldwide data on oil resources and oil discoveries. He finds support for a relationship between oil and democracy, showing that on average, a discovery of 100 billion barrels pushes a country's democracy level almost 20 percentage points below the existing trend (Tsui, 2011: 111). Moreover, the estimated effect is higher when the oil quality is better and combined with lower exploration and extraction costs. His results give support to the claim that governments who gains access to oil, are less likely to democratize.

However, the large body of scholarship finding a negative relationship between oil and democracy received sharp criticism from Haber and Menaldo in their study from 2011. They argue that previous studies cannot infer causality from the correlation between oil and democracy in observational data because it is highly likely that the results are driven by omitted-variables that are time-invariant and country-specific. By extending the timeline back to before 1800 and using a difference-in-difference estimator to account for counterfactuals, Haber and Menaldo do not find any empirical support for the oil-authoritarianism link (Haber & Menaldo, 2011). A problem with this study is that their models assume that the relationship between oil and democracy has not changed over the last 200 years. While their findings have been revisited (Andersen & Ross, 2014) and disputed by recent studies (Ross, 2012; Andersen & Ross, 2014), it made researchers aware of several biases in the research. New research suggests that oil became a hindrance to democracy after the transformative events in the 1970s (Ross, 2012; Andersen & Ross, 2014).

Another study on the relationship between oil and democracy finds that oil inhibits democratization, but only in the context of violent domestic conflict. Colgan (2015) argues that oil generates financial resources that both incumbent governments and challengers can exploit to fight, but these frequent violent domestic conflicts do not lead to more democratic transitions in states with higher levels of oil income. Colgan's findings lend support to the repression effect presented in Michael Ross' article (2001), suggesting that states with petroleum wealth spend more money on internal security. Furthermore, Colgan shows that ten out of eleven transitions to

democracy in petro-states between 1946-2004 occurred without violent domestic conflict (Colgan, 2015). This suggest that there is a peaceful pathway to democracy in petro-states, but to the extent of this author's knowledge, there are no studies examining if oil wealth affects actualized mobilization, and if this explains lower prospects for democratization in countries with oil and gas wealth.

A recent study by Simon Wigley uses mediation analysis to examine if the negative effect of oil on private liberties is explained by the negative effect of oil on democracy (Wigley, 2018). Similar to this study, Wigley uses the Ross-Mahdavi dataset on oil and gas (2015) for his treatment variable oil, but he applies a dichotomous variable to measure the effect of being an oil-producing country on private liberties. This variable is a more exogenous variable to democracy compared to oil income per capita, oil exports as a fraction of GDP or production levels, but it cannot capture differences in levels of oil wealth. Private liberties are measured using an indicator of private liberties from V-Dem which is based on four subcomponents: "freedom from forced labor, freedom of religion, freedom of movement, and property rights" (Wigley, 2018: 235). He finds that some of the effect of oil on private liberties is partially mediated through a negative effect of oil on democracy. Lower levels of democracy make it difficult for citizens to demand protection of private rights and liberties because they are unable to hold their governors accountable for their actions. The following section presents the role of civil society organizations in the quest for democracy.

2.3 Campaign dynamics and civil resistance

Classical definitions of democracy as the presence 'free' and 'fair' elections focus on the presence of institutions for alternation in power. I argue that there has been a neglect of the role of political participation in building and sustaining these institutions. The people's participation is essential to build stable democracies. Through participation, we can gain knowledge about how structures in society affect and potentially harm others, which can encourage compassion and inspire the will to change existing structures. By extending the notion of 'political' to spheres outside the national government, studies on democratization have found that popular mobilisation, and particularly those applying nonviolent tactics to achieve their goals, are correlated with democratic transition (Celestino & Gleditsch, 2013; Chenoweth & Stephan, 2011).

Nonviolent resistance can be understood as a "technique of socio-political action for applying power in a conflict without the use of violence" (Sharp, 1999: 567). Studies comparing nonviolent and violent campaigns find that the mode of direct action has major impact on the likelihood of campaign success. Nonviolent campaigns appear far more likely to succeed in the short term compared to violent campaigns (Schock, 2005; Chenoweth & Stephan, 2011). Moreover, nonviolent protests which are large and enduring are more likely to enhance the prospects of democratization compared to no mobilisation or armed conflicts (Brancati, 2016). Campaigns that adopt a nonviolent mode of action have a participation advantage over violent insurgencies because of lower moral, physical, informational and commitment barriers (Chenoweth & Stephan, 2011: 10).

In this context, I have chosen to focus on the role of civil society organizations. Civil society organizations operating on oil are particularly targeted as they are perceived as a threat to the regime's political and economic interests (Braathen, Houeland & Aasen, 2018). Civil society organizations should be understood as organizations independent from the state. While social, political and economic grievances can be commonly felt on an individual level, they are not often translated into articulated demands for change in regime behaviour, and some researchers argue that proxies for these grievances are not well-suited to predict rapid changes in short interludes. Large-scale action does not arise in a vacuum, it generally follows some sort of low-level of collective action in initial group formation where demands are articulated (Cunningham et al., 2017: 470). Following previous research, I assume that civil society organizations are an enabling factor for successful civil resistance as they generally articulate maximalist claims and coordinate the large-scale action (Cunningham et al., 2017: 470). Most of the democratic transitions under the 'third' wave of democratization were driven by mobilised collective actors (Pinckney, Butcher & Braithwaite, 2018; Haggard & Kaufman, 2016a; Brancati, 2016; Brancati, 2018; Teorell, 2010). Non-government organizations can teach people skills, extend their knowledge about human rights and their duties as citizens - which in turn can inspire confidence to demand answers from their rulers and peaceful conflict management (Diamond, 2008).

There are three concepts that are central to understanding the dynamics of civil resistance: i) mobilization, ii) resilience, and iii) leverage (Schock, 2013: 282). Mobilization is the process of collecting resources, people, and additional support for a campaign (Schock, 2013). The presence

of pre-existing networks and structures can be essential to mobilization (Staniland, 2014). The extent to which a campaign is able to mobilize is important. Chenoweth and Stephan (2011) show that large campaigns are more likely to succeed than small campaigns. Civil society organizations have already overcome initial collective-action problems and can utilize these pre-existing networks to mobilize.

However, it is not only the quantity of participants in a campaign that determine the outcome. Sutton et al. (2014) find that spontaneous protests with little prior institution-building do not stand a chance against oppressive regimes. Hence, resilience is a key factor to understand the outcomes of resistance campaigns. Resilience refers to the ability to withstand and recover from repression (Schock, 2005). Successful campaigns must be able to sustain mobilization despite the actions of the regime which aim to constrain or inhibit the actions of the challengers (Schock, 2005). Leverage refers to the degree of which a campaign can sever the opponent from the sources of power it depends on (Schock, 2005; Schock, 2013: 283). This can be done directly or through allies or third parties. If the campaign is sufficiently organized, it can either harm the incumbent regime directly by withdrawing or threatening to withdraw support, or indirectly by causing third parties whose support is essential to the regime to withdraw support (Shock, 2013).

As previously argued, it is possible that the relationship between oil and democracy runs through depressed collective action. Michael Ross (2009) presents one way this might be the case for petro-states. In the next section, I present the civil society effect (Ross, 2009) as a suggested causal mechanism for the link between oil wealth and democracy and discuss how this can affect: i) the diversity of anti-regime coalitions, and ii) the participation of key actors in resistance campaigns.

2.4 The civil society effect and hypotheses

The civil society effect occurs when the government uses its oil wealth to stifle or suppress independent civic organizations that might favour democratization (Ross, 2009). As these organizations usually serve as an incubator for democracy by utilizing their networks and competence to organize collective action, they become a natural target for authoritarian regimes that seek to eliminate contenders for political power. Moreover, civil society organizations operating on oil are particularly targeted as they are perceived as a threat to the regime's political and economic interests (Braathen, Houeland & Aasen, 2018). The presence of civil society organizations is important not only because they contest the political legitimacy of the regime, but

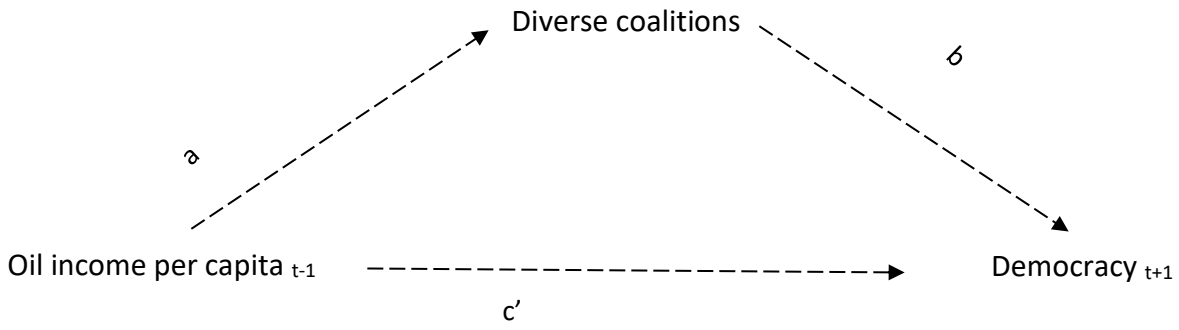
also because governments strive to present the country as safe for investors (Braathen, Houeland & Aasen, 2018). While states without resource wealth often ban these organizations, resource-wealthy authoritarian leaders can use other strategies. Either by creating state-funded organizations to displace independent organizations, or by developing programs set to depoliticize the population (Chaudry, 1994), authoritarian regimes can depress the formation of independent civic organizations that might favour democracy. Ross argues that dictators can use patronage to win the support of key-constituencies and forestall the formation of durable civil society organizations (Ross, 2009). Other studies on nontax revenues and regime stability support this argument. Morrison argues that nontax revenues are associated with regime stability in both democracies and autocracies, however through different paths: in democracies it leads to reduced taxation of the elites, while in autocracies it leads to greater social spending (Morrison, 2009). If there is low opportunity to organize or the existing organizations have strong incentives to side with the regime, this can result in narrower campaigns. Fewer independent civil society organizations is likely to narrow the mobilization base upon which potential civil resistance movements could draw.

Chenoweth and Stephan (2011) argue that while the number of participants predicts a higher probability of campaign success, the number of participants cannot alone guarantee success. They argue that the more diverse the participation in a resistance campaign is in terms of socioeconomic status, gender, religion, ethnicity, age and profession - the more difficult it is for the opponent to isolate participants and use a repressive strategy (Chenoweth & Stephan, 2011: 40). Moreover, since different groups bring different skillsets, resources and experiences with resistance, more diverse campaigns should increase the tactical diversity of the campaign (Chenoweth & Stephan, 2011: 40). In theory, these factors should increase the resilience and leverage of diverse coalitions compared to less diverse coalitions. If states create development programs designed to depoliticize the population (Chaudry, 1994) or displace independent organizations with organizations loyal to the regime, we should expect resistance campaigns to be less diverse in states with higher levels of oil income.

From this I derive the following hypothesis:

> **H1:** *Oil wealth is related to lower levels of democracy through less diverse resistance campaigns.*

Figure 1: Illustration of mediation design



However, while mass-mobilization can increase the probability of short-term success, recent studies have disputed its effect on post-conflict democratization. Butcher, Gray and Mitchell (2018) find that short-term mass mobilization is not necessarily sufficient in sustaining high levels of mobilization after the campaign ends, while the presence of national trade unions both increases the probability of short term-success and decreases the probability of short-term failure, and also increases the prospects for post-conflict democratization. The purpose of a trade union is usually to promote workers' interest (ARC, 2019), and thus we should expect these organizations to act as key players when there is conflict between the state and the working people which they represent.

Trade unions have networks of unions and branches that give them a great capacity for mobilization (Kraus, 2007). Not only do these pre-existing structures help trade unions overcome the initial collective action problem, they make it easier to remobilize if the opponent should decide to renege on its promises after the initial round of bargaining. Previous research on the role of labour movement in democratization processes show that the relationship between economic development and democracy can be explained by a shift of state repression to legalization and institutionalization of the labour movement. By comparing the history of eight Latin American countries, Collier and Collier (2002) find that when labour unions were allowed to operate as legitimate actors within society, political leaders began to pursue the option of mobilizing workers as a base for political support (Collier & Collier, 2002). Labour unions had an unusual capacity for mobilization as they had a large number of unionized workers in a "spatially concentrated, large-scale centre of production" (Collier & Collier, 2002: 41). They also had strategic positions

in often critical points in the economy, which increased their leverage when bargaining with the regimes.

Trade unions relate directly and institutionally to capital and the state through various economic, legal and political relations (Fantasia & Stepan-Norris, 2004). This provides trade unions with a structural power that can be used to create leverage either directly through the loss of income for the state due to strikes, or indirectly through the loss of support from the essentials whose income is hurt by continued strikes and demonstrations. They are also active in democracy protests. Trade unions have since 1960 acted to overthrow some governments through protests and weaken other governments through sustained strikes (Kraus, 2007). This has provided tactical knowledge and experience that can be used to organize more effective campaigns. Consequently, trade unions should increase the resilience of campaigns. During the Jasmine revolution in Tunisia in late 2010 and early 2011, in addition to participating and leading strikes against the regime, members of the Tunisian General Labor Union (UGGT) provided organizational assistance to resisters all over the country (Netterstrøm, 2016). UGGT offices were used as refuges for protestors and as meeting points to organize actions. Moreover, trade unions can also play a key role in ensuring that regimes don't renege on their promises post-conflict. In 2013 after previously pushing for constitutional process and the resignation of the rest of the administration of former Tunisian President Ben 'Ali, UGGT in collaboration with other civil society organizations played a key role in drafting a road map for finishing a new constitution by holding talks with the different political parties (Netterstrøm, 2016: 384). In 2014, a new democratic constitution was passed, and the UGGT and three other civil society organizations received the Nobel peace prize for this achievement in 2015 (Netterstrøm, 2016: 384).

Historically, trade unions were key actors in what Lisa Mueller refers to as the first wave of protest in Africa, especially in the Francophone countries (Mueller, 2018). The first wave of protests in Africa refers to the twilight of the colonial era. Leaders of the first wave were often labour unionists, and they and other members of the middle class acted as "generals" who mobilized the masses in this period (Mueller, 2018). Unionists were particularly suited for leading protests as they were embedded in tight social networks and had a history of successful collective action (Mueller, 2018: 33). Moreover, in situations where civil society organizations are banned, trade unions can fill the gap (Brancati, 2016). This was the case in Swaziland where the Swaziland

Federation of Trade Unions was involved in the campaign to win pluralist and democratic reforms (Brancati, 2016).

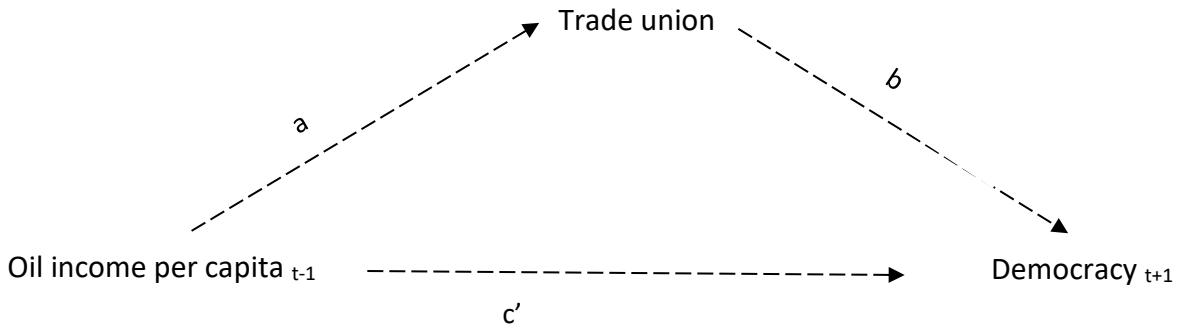
The role of trade unions was particularly prominent in the 2012 protests in oil-rich Nigeria led by the Occupy Nigeria coalition. When President Goodluck Jonathan removed the fuel subsidies that many of Nigeria's poor depended on for their daily survival, it unleashed great turmoil as over 170 million people were directly and severely affected (Branch & Mampilly, 2015: 89). Over the years, the Nigerian government had developed a counter-protest strategy that relied on a mix of coercion and co-optation. While the ability to repress protests with brute force was important, the ability to fragment social forces that would have to unite for any movement to be successful, would prove to be more important in this particular case (Branch & Mampilly, 2015: 89). The trade unions originally joined the protests, providing the organizational infrastructure that allowed the movement to mobilize on a vast scale. However, the more conservative and vague position of the labour movement conflicted with the positions of other key actors that promoted more radical demands for change (Branch & Mampilly, 2015). This was no coincidence. The Nigerian government had for years meddled with the affairs of Nigerian labour which had ultimately stripped the movement of any military tendencies. As a result, differences of campaign goals led to disagreement and conflict within the campaign, and ultimately caused the withdrawal of support from the labour movement (Branch & Mampilly, 2015). Soon after, the rest of the Occupy coalition could not sustain further protests.

I argue that if states use their oil wealth to stifle or suppress independent civic organizations that might favour democratization (Ross, 2009), this should be reflected in the non-participation of key organizations that could compel democratization, in this case a lower level of trade unions participating in a nonviolent resistance campaign. If states with petroleum wealth use the largesse on public programs to depoliticize the population (Chaudry, 1994), increased wages and promises of reforms can dampen the pressures from trade unions.

Consequently, I present the following hypothesis:

> **H2:** *Oil wealth is related to lower levels of democracy through a negative impact on the likelihood of a trade union's participation in a civil resistance campaign.*

Figure 2: Illustration of mediation design.



2.5 Alternative mechanisms to the civil society effect

A failure to detect a significant relationship that would give support to either of the presented hypotheses suggests that the link between oil and democracy is better explained by other variables than broad-based coalitions and the presence of trade unions in civil resistance. I argue that if the link between oil and democracy does not run through depressed mobilization, this can reflect the ability of the elite to maintain elite cohesion in the face of resistance campaigns (even diverse movements), use repression with fewer consequences and ultimately concede to pro-democracy movements less often. According to selectorate theory, if the number of people who are essential for a dictator to stay in power is relatively small compared to the rest of the population, it will be cheaper to invest in private goods that benefit the few (Bueno de Mesquita & Smith, 2011). The stream of revenues from oil can be used to keep the small number of elites happy by funnelling favours their way at the expense of the population. As a result, leaders in non-democratic states with a constant stream of external revenues are more likely to stay in office because they avoid being deposed by regime insiders, especially the military. That leaves only the risk of external deposition by the masses. Boix (2003) argues that in countries where the elites have oil wealth, democratic transition is less likely to occur because of the immobility of oil and gas. Generally, when countries transition from an authoritarian regime to democracy, political rights are extended from a small, wealthy elite to a broader citizenry. Boix uses a formal model to show the circumstances under which this is more likely to happen. An important precondition is that elites will only agree to democratize if they know their wealth is protected from seizure by the "newly-empowered" masses. Depending on the mobility of their assets, elites will have different preferences to democratic transitions. Elites with mobile assets that can easily be transferred abroad, do not need to worry about their assets being seized. Therefore, they will agree to

democratize. However, when their wealth is based on oil which is an immobile or 'fixed' asset, the circumstances change. A new, democratic government might consider the oil as a subject to seizure to accommodate demands from the masses. Since the elites cannot move the oil out of the country, they are more likely to oppose democratization in general. Consequently, regimes who rely on income from oil to secure stability are more dependent on keeping the small elite in the country satisfied, at the expense of the masses. This makes them less responsive to the demands of the masses, and more likely to maintain elite cohesion during events of political contention and concede less often to the demands of pro-democracy movements.

There are some empirical findings that support the claim that governments can use different tactics to deal with protests once they occur depending on their source of income. A recent study by Girod, Stewart and Walters on mass protests and repression finds that the effectiveness of repression in quelling protests varies depending upon the income sources of non-democratic regimes (Girod, Stewart & Walters, 2018). Using the NAVCO 2.0 dataset, Girod, Stewart and Walters find that authoritarian regimes who possess one standard deviation above the mean in oil rents are over 50% more likely to successfully demobilize protesters with repression than similar governments at one standard deviation below the mean in oil rents (Girod et al., 2018: 515). This is in line with the findings of Conrad and DeMeritt (2012) who argue that the executive's propensity to use violence against citizens is a function of the extent to which they are dependent on the citizenry to stay in power, and that we should expect this dependence to be lower in oil-rich states where the executive does not need to rely on taxation for financial resources. This suggests that oil-rich authoritarian regimes are better equipped to quell external threats of deposition from mass protests compared to non-oil rich authoritarian regimes after the people have taken to the streets because they can spend more money on internal security.

While my study does not test directly how oil wealth is related to elite cohesion, the presented theory suggests that these factors can explain the link between oil wealth and lower levels of democracy. Following this, if the effect of oil wealth on democracy does not run through either less diverse resistance campaigns or the presence of a trade union in these campaigns, it is likely that the relationship between oil wealth and democracy is explained by elite cohesion, repressed mobilization and ability to withstand pro-democracy movements.

3.0 Data and research design

A fundamental goal of social science is to identify causal mechanisms. When we are able to identify that one variable affects another, we also want to study how the causal relationship arises (Imai, Keele, Tingey & Yamamoto, 2011). One way to do this, that I adopt in this paper, is causal mediation analysis. The model-based causal mediation analysis can be summed up in two steps. Firstly, I estimate two regression models. The first model estimates the conditional distribution of the mediator (Mi) given the treatment variable (Ti) and a set of observed pre-treatment covariates (Xi) (Tingley, Yamamoto, Hirose, Keele & Imai, 2014: 4). The second model is the outcome model, where I estimate the outcome (Yi) given the treatment variable, the mediator and the pre-treatment covariates. The models are estimated using ordinary least squares (OLS) for all models when testing the link between oil wealth, the number of organizations participating in a civil resistance campaign and democracy. When testing the relationship between oil wealth, the presence of a trade union in a civil resistance campaign and democracy, I use logit models to estimate the relationship between oil wealth and the probability of a trade union's participation in a resistance campaign, and OLS to estimate the models that estimate the effect of oil wealth and the presence of a trade union in a campaign on the dependent variable democracy.

Finally, I use the mediate function, which is made available through the R package 'mediation' to compute the estimated Average Causal Mediation Effects (ACME) with Huber-White's heteroskedasticity-consistent estimator to get robust standard errors. The ACME is the total effect minus the direct effect. If this indirect effect is significantly different from zero, we have detected a chain of relations in which the effect of oil income on democracy runs through one of the mediator variables (Tingley et al., 2014). In general, as long as computing power is not an issue, scientists should estimate the AMCE using bootstrapping with at least a 1000 resamples (Tingley, et.al., 2014). However, when I run the analysis using bootstrapping which relies on random sampling, it does not significantly change my results. In the main text I report the results from the mediation analysis using Quasi-Bayesian Confidence Intervals with robust standard errors, while the results from the mediation analysis using bootstrapping can be found in the appendix.

Unit of Analysis

To test the presented hypotheses, I employ a panel of 49 African countries for each year from 1990-2014. The data are collected from the Varieties of Democracy (V-Dem) Project (Coppedge,

et. al., 2018), the Ross-Mahdavi Oil and Gas dataset 2015), the ARC data project[1], and the World Bank. This forms a panel of 49 sovereign African states from 1990-2014 with 1155 country-years. The following is a description of each variable that is used in the models.

Table 3. 1: Descriptive statistics

Continuous variables	**N**	**Min**	**Max**	**Mean**	**Std.dev**
Log Oil and gas income pc	1261	0	10.083	1.834	2.858
Log No. Organizations	1273	0	4	0.661	0.824
Urban pop (%)	1271	5.270	87.156	37.235	17.462
Log Population	1271	12.905	18.962	15.946	1.260
Log Battle-related deaths	1273	0	11	1.329	2.539
Civil society index	1250	0.021	0.976	0.579	0.253
Log GDP per capita	1167	5.087	9.92	6.918	1.011
Polyarchy (t+1)	1251	0.074	0.803	0.362	0.185
Polyarchy (t+3)	1251	0.074	0.803	0.378	0.185
Polyarchy (t+5)	1154	0.074	0.803	0.385	0.185
Polyarchy (t-1)	1250	0.074	0.803	0.334	0.185
GDP Growth	1167	-62.076	149.973	4.272	8.767
Dummy variables	**N**	**0**	**1**	**% 0**	**% 1**
Trade union dummy	1273	1199	74	94.2	5.8
Region dummy	1273	1143	130	90	10

[1] Unpublished

Dependent variable

The dependent variable is the Electoral Democracy index, *v2x_polyarchy*, from the *Varieties of Democracy* project (Teorell, Coppedge, Skaaning & Lindberg 2016; Coppedge, et al., 2017) The index is an interval from low to high, where the value 0 represents full autocracy and 1 represent the ideal of the electoral democracy. The variable is measured along five sub-components: i) elected officials, ii) free and fair elections, iii) freedom of expression, iv) associational autonomy and v) inclusive citizenship (Teorell et al., 2016: 2).

I construct three new variables measured at one (t+1), three (t+3) and five (t+5) years after the observation year (t). The one-year lead is included to capture the effect of oil wealth on short term liberalization, concessions and political freedoms after a campaign. When facing mass protests, dictators can use two instruments to survive in office: i) repress the challengers and make the cost of participating too high to continue any acts of resistance, or ii) succumb to demands from the population, increasing the benefits of regime stability (Magaloni, 2008). Bratton and van der Walle find that the median interval between campaign onset and of transition and accession to office was only 36 months for the 35 countries that underwent regime change in 1994 (Bratton & van der Walle, 1997: 4), and I therefore test the chain of relations with a three year lead. Moreover, many African democratic transitions have led to the installation of particularly fragile regimes, some of which collapsed some years after they took office (Bratton & van der Walle, 1997: 121). Since I am also interested in the effects on medium-term democracy. Dictators can coopt rivals by giving them legislative seats which can cause a short-term increase in the democracy score because it increases the number of elected officials. However, if rivals give up the threat of rebellion in exchange for legislative seats, there is little to prevent the dictator from reneging on his promises once the threat is settled (Magaloni, 2008: 716). Therefore, I test the chain of relations with a five-year lead of the dependent variable to see if the effect of oil and actualized mobilization can explain differences in levels of democracy after a five-year period.

Independent variables

To measure petroleum wealth, I use oil and gas income per capita measured in real dollars from the Ross-Mahdavi Oil and Gas data, 1932-2014. I use the per capita measure because my theory

of interest involves the amount of money the state can spend in relation to society. This variable is lagged by one year to avoid simultaneity bias. Another approach would be to calculate oil and gas exports per capita, but this variable has significantly more missing values than the oil and gas income per capita variable, and as discussed in the previous research; poor countries tend to export their oil which makes export value a less exogenous measure than wealth. The example of demonstrations in Algeria show that fluctuations in oil prices may drive unrest. However, I argue that government reactions to fluctuations in oil prices and the extent to which the economy is dependent on oil to reach development goals, make oil prices a less suitable measurement to capture my theory of interest. Both countries that produce and sell oil and countries that import oil for domestic consumption are affected by fluctuating oil prices. Moreover, studies that model volatility in oil prices find that oil prices are affected by the level of conflict in oil-producing countries and global financial structures (Salisu & Fasanya, 2013). Furthermore, the theory in question argues that oil income gives regimes the possibility to suppress civil society organizations, and as I measure oil income in real dollars, a decline in income due to fluctuations in oil prices should be captured by oil income per capita.

In mediation analysis, like in normal OLS regression, the independent variable should be exogenous. It is possible that oil income is a function of oil exploration which may be determined by the willingness and capability of the regime to search for oil. Ideally, this would be measured using an instrumental variable, but since there are no good instrumental variables for oil income, this measurement is believed to be the lesser evil. However, studies show that exploration and extraction rates are in fact slower in countries with undemocratic institutions compared to countries with oil and democratic institutions as bad political conditions increase investment risks for extractive companies (Bohn & Deacon, 2000). Therefore, oil income per capita is probably lower in authoritarian states with violent conflicts, and I argue that the operationalization oil income per capita does not cause an overestimation of the effect of oil on democracy. I also include control variables which are designed to minimise this type of bias by capturing factors that might explain oil, protest and democracy.

Oil and gas income per capita is transformed by taking the natural logarithm of the variable for two reasons. Firstly, as the graphic on the next page shows, many African countries have little or no oil income in the time series, while other countries have enormous amounts. For instance,

Equatorial Guinea which is coded 411 below has is one of the largest oil producers in Africa, and the President Teodoro Obiang Nguema Mbasogo has led a highly repressive regime since 1979 (Freedom House, 2018b). To minimize that outliers like Equatorial Guinea skew the results, we can log transform the variable. Secondly, because oil and gas income per capita is measured in real dollars, there are good theoretical reasons to log transform the variable. Social scientists often understand money in multiplicative terms rather than additive terms. For instance, a $1000 increase of oil and gas income per capita in one year may have different effects in a country where oil and gas income already is high compared to countries without oil wealth. A log transformed variable can make more substantive sense in this case.

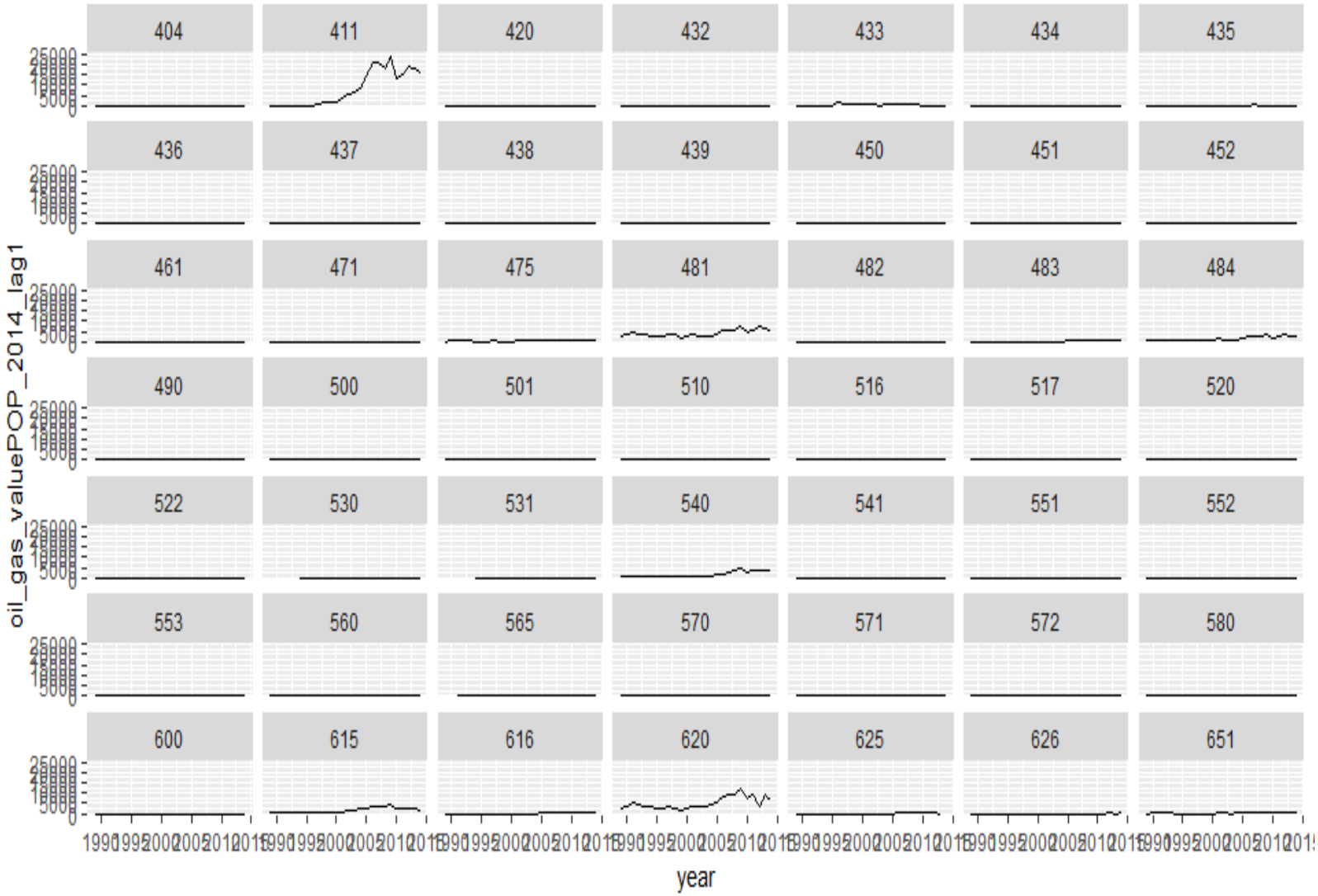


Figure 3: Variation in Oil wealth per capita, Africa, 1990-2014

Mediators

As previously mentioned, this paper aims to combine structural and contingent explanations for democratization and test if the relationship between oil wealth and democracy runs through depressed mobilization. While there are many different operationalizations of civil society that relates to the civil society mechanism, it is key to choose measurements that capture the theory in question: actualized mobilization. Michael Ross argued in his article that since there were no good cross-national data on the strength of civil society groups, the presented civil society-mechanisms remained largely untested (Ross, 2009). The new ARC dataset provides new information on the organizational composition of civil resistance campaigns. I use two variables from this dataset to measure differences in actualized mobilization. The ARC dataset introduces the possibility of examining if there is any empirical support for the civil society mechanism, and to what extent the effect of oil on democracy runs through more narrow coalitions in oil states or through the absence of trade unions in resistance campaigns.

To test H1, I use the number of organizations that participate in a campaign of maximalist dissent as a proxy for the diversity of coalitions. An event is coded in the ARC dataset if there is evidence of a maximalist claim which I defined in the introduction. An important feature of maximalism is that it pertains to demands, not grievances. Following this, this operationalization of events allows me to capture actualized mobilization as opposed to latent potential for mobilization. Chenoweth and Stephan find that an increase of active participants in a campaign significantly increases the probability of campaign (Chenoweth & Stephan, 2011: 39). More organizations are likely to broaden the mobilization base for campaigns. Campaigns are very likely to succeed after reaching a critical threshold of participants (Chenoweth & Stephan, 2011), and therefore it is likely that extra organizations on the high level of the distribution have a smaller effect. I therefore log transform the variable. The number of organizations variable has the largest number of missing values in the early years of the data, but all missing are set to 0 as I assume that a failure to detect any organizations signals the absence of a resistance campaign.

It is important to note that this variable includes organizations that participate in both violent and nonviolent contention. Nonviolent campaigns are more likely to succeed compared to violent resistance, and they are more likely to have more diverse coalitions because they attract more participants due to lower physical barriers, less informational problems, lower moral barriers and

less commitment problems (Chenoweth & Stephan, 2011: 37). This might affect the results if countries with oil and gas are more conflict prone than countries without petroleum wealth, and thus more likely to experience resistance from more narrow violent coalitions which in turn is less likely to lead to democratization. If I find that the effect of oil wealth on democracy is mediated through less diverse coalitions in resistance campaigns, this can be accounted for in a robustness test by dropping violent groups from the data or restrict the data sample to years without battle-deaths to capture mostly nonviolent contention. However, the number of violent groups in the data is a very small minority, and the effect of these groups is likely to be captured by the control variable battle-related deaths.

Moreover, the number of organizations that participate in dissent is not a perfect proxy for diverse coalitions. In the literature on civil society organizations in East Africa, some argue that civil society organizations have been forced to balkanize into elite or grassroot entities (Kaiser & Okumu, 2004: 116). Thus, a high number of organizations could actually capture fragmentation of civil society as was the case with the presented 2012 protests in Nigeria. Diverse coalitions might make it more difficult to promote unified maximalist claims and coordinate efficient campaigns. Furthermore, Girod, Stewart and Walters (2018) argue that while repression is strongly correlated with quelling mobilization in some cases, other times government repression to initial protests can trigger major backlash and mass mobilization. If countries with oil wealth experience backlash because of their propensity to use repression against their own citizens, events of mass mobilization can occur despite governments' attempt to stifle or coopt independent civil society groups. I will return to this in the discussion. The variable is not lagged because it is important to avoid post-treatment bias by introducing new covariates (Xi) measured at the same t as the mediator (M).

To test H2: "Oil wealth is related to lower levels of democracy through a negative impact on the likelihood of a trade union's participation in a civil resistance campaign", I use a variable measuring the presence of a trade union in a campaign of maximalist dissent as a mediator. The variable is coded as 1 if a trade union is participating in an event of maximalist dissent, and 0 if a trade union was not detected regardless of whether there was a campaign in the year or not. This variable is also collected from the ARC dataset. An organization is coded as a trade union if it engages in maximalist dissent and meets the following criteria:

> trade unions are organizations made up primarily of workers whose primary mission is to promote workers' interests. Trade unions are often limited to a particular industry (such as a Teachers' Union or a Steelworkers' Union) but need not be so. Trade unions need not be formally recognized by the government or by international trade union bodies in order to be coded as a trade union. (ARC, 2019).

This includes trade unions of all sizes and types, both sectoral and national unions. The inclusion of the small unions might make it more difficult to detect a significant effect of a trade union's participation in a maximalist campaign on democracy. This is because small unions can have a smaller capacity for mobilization as they have fewer unionized workers, and they might have less leverage compared to large, national unions if they are only able to target a small portion of the economy. Neither of the mediators are lagged, because it is important to avoid post-treatment bias by introducing new covariates (Xi) on the same t as the mediator (M) (Tingley, Yamamoto, Hirose, Keele & Imai, 2014).

The ARC dataset might suffer from underreporting of organizations for civil resistance movements in particular, because it relies heavily on newsmedia sources which tend to underreport nonviolent events compared to violent resistance. Newspaper data can suffer from selection bias (which subset of events are covered) and description bias (the accuracy of coverage) (Earl, Martin, McCarthy & Soule, 2004). Furthermore, the rise of social media and the explosion of newswire reporting in the last decade means that more organizations may be detected in later years due to this increased coverage, which can cause a temporal difference in detected protest events. It is important to control for temporal dependence in the data (Weidmann & Ward, 2010). I run a robustness test on this by adding a linear time-trend to the models, the results are reported later in the robustness test chapter.

Control variables

When testing the relationship between two phenomena, it is important to control for underlying variables to avoid omitted-variable bias. When testing the relationship between three phenomena, controlling for confounding variables becomes twice as important. To do this successfully, it requires a solid theoretical understanding of the causal relations one is trying to explain, and which factors that can affect this chain of relations (Skog, 2004: 44). In this paper, I have presented several proposed mechanisms that could explain the relationship between oil and democracy. To

minimize omitted variable bias, I have to control for variables that can cause changes in the level of oil income per capita and democracy, in addition to factors that drive levels of participation by civil society organizations in maximalist dissent and the probability of the participation of a trade union, and drive or stall democratization.

The growth of cities indicates a transition from agriculture-based economies to more industrialized economies, more advanced technologies, and a transition of the workforce to tertiary sector (World Bank, 2018). I apply the World Bank's measurement for percentage of urban population as a proxy for modernization. Less modernized countries may lack the resources to explore new fields and extract oil at the same rate as more developed countries, which causes lower discovery, production and extraction rates. Industrialized economies can empower organized labour like trade unions by increasing the productive sector and include more people in the workforce. Urbanization can also help campaigns overcome collective action problems (Walton & Ragin, 1990; Butcher & Svensson, 2016). Haggard and Kaufmann (2016a; 2016b) argue that modernized countries are more likely to transition to democracy, and it is therefore important to control for the level of modernization. This variable is lagged by one year.

Economic development is linked to democratic transition by many social scientists, perhaps most famously by M. S. Lipset who highlighted the importance of sociocultural and economic conditions for democracy. Increased economic development is also associated with a higher density of organizations in society. Lisa Mueller finds that absolute deprivation has a negative relationship with protest participation (Mueller, 2018: 139), arguing that very poor people might perceive the risk of protesting as higher as they have so little to lose. Moreover, Mueller argues that "higher economic status has increased people's feelings of entitlement to political power without making incumbents more willing to share power" (Mueller, 2018: 55). Higher levels of economic development should make protest more likely, and also be positively correlated to democracy. Economic development can increase the ability of organized labour to interfere with the economy (Teorell, 2010; Butcher, Gray & Mitchell, 2018), which increases the leverage of trade unions. Following this, economic development could drive democratization (Haggard & Kaufmann, 2016) and it can affect the underlying potential for mobilization and explain differences in actualized mobilization. I therefore include gross domestic product (GDP) per capita as a catch-all measurement for economic development. I use the World Bank's measurement for

GDP per capita to control for economic development. The variable is lagged by one year and log transformed.

Furthermore, the constant redistribution of state resources has in many petroleum-rich states led to fiscal crisis and lower prospects for sustain economic growth (Bratton & van der Walle, 1997). Declining GDP growth can drive labour unrest, making resistance against the regime more likely (Brancati, 2016). When the economy is not performing well, it can decrease the costs for organizations to participate in resistance (Haggard & Kaufmann, 2016a). Thus, we should expect more democracy protests when the economic conditions are poor (Brancati, 2016: 106). In periods of strong economic growth, trade unions may act more conservatively because jobs and contracts are increasing which increases the costs of participating in resistance (Butcher & Svensson, 2016). Moreover, the primary purpose of trade unions differs in nature from other civil society organizations. A trade union works to promote worker's rights and interests. Many trade unions organized strikes and work stoppages in sympathy with other protesters that promoted maximalist claims (Brancati, 2016: 21). While such actions clearly can increase the leverage of a campaign, we should expect the probability of a trade union's participation to decline if the economy is performing well. This variable is also retrieved from the World Bank and lagged by one year.

Several studies find a significant relationship between resource wealth and civil war (Fearon & Laitin, 2003; Collier et al., 2003; Ross, 2004). Civil war is development in reverse (Collier, 2007), and if states with petroleum wealth are more conflict-prone, it is important to control for this as conflict can be a confounding variable. Conflict can cause lower levels of democracy, but also reduce oil income. Countries with undemocratic institutions and conflicts are poor investment risks for extractive firms, and they tend to have less exploration and slower extraction rates (Bohn & Deacon, 2000; Cotet & Tsui, 2013; Ross, 2015). Moreover, while a majority of the organizations in the ARC dataset participate in nonviolent resistance, the mediator "number of organizations that participate in maximalist dissent" include a small minority of violent group. As previously discussed, violent campaigns are less likely to lead to democratization compared to nonviolent campaigns. Therefore, it is important to control for violence to capture the contribution of these groups on the results.

I therefore add the annual number of battle-related deaths as a control variable. Battle-related deaths are:

> deaths in battle-related conflicts between warring parties in the conflict dyad (two conflict units that are parties to a conflict). Typically, battle-related deaths occur in warfare involving the armed forces of the warring parties. This includes traditional battlefield fighting, guerrilla activities, and all kinds of bombardments of military units, cities, and villages, etc ... All deaths--military as well as civilian--incurred in such situations, are counted as battle-related deaths. (World Bank, 2019).

This variable is also downloaded from the World Bank which sourced the variable from the Uppsala Conflict Data Program (Pettersson, Högbladh & Öberg, 2019). Battle-related deaths are log transformed and lagged by one year.

To test my hypotheses, I use measurements that capture factors related to actualized mobilization as mediators. Actualized mobilization measured as the number and types of organizations that could engage in dissent, is most likely affected by the capacity for collective action. Increased openness, legalization of organization and increased access to the political arena can provide an opportunity to protest that did not exist prior to political liberalization (Bratton & van Der Walle, 1997). To control for the latent potential of civil society, I add the core civil society index from V-Dem as a control variable. The civil society index is "a measure of a robust civil society, understood as one that enjoys autonomy from the state and in which citizens freely and actively pursue their political and civic goals, however conceived" (Coppedge et al., 2017: 234). The variable is comprised of three subcomponents: i) civil society organizations entry, ii) civil society organizations repression, and iii) civil society organizations participatory environment (Coppedge et al., 2018: 234). It is formed by taking the estimate points from a Bayesian factor analysis of the three variables, which constitutes an interval (0-1) from low to high (Coppedge et al., 2018: 234). The variable is also lagged by one year to avoid simultaneity bias.

Most countries with high levels of petroleum wealth and few democratic transitions are located in North Africa and the Middle East (Ross, 2015). Early studies on oil wealth and democracy examined the Middle East specifically (Mahdavy, 1970) because of the lack of democratic transition in the high-income Arab countries in the Middle East (Ross, 2001). While there are other states in Africa, like Angola, with a similar history of few democratic transitions and oil wealth, there might be unobserved, regional features that explain the lack of democratization in countries in North Africa. Brancati and Lucardi (2016) argue that democracy protests cannot explain the temporal and geographical clustering of democracy because democratic transitions and democracy

protests are a result of domestic processes, and they find no evidence for democracy protest diffusion arguments. This suggests that the lack of democratic transitions as a result of mass mobilization in the region cannot explain why each country has failed to democratize because democracy protests are not caused by a diffusion effect. While this paper agrees with Brancati and Lucardi (2016) when they claim that the quest for democracy is a result of domestic processes, I argue that it is still important to control for unobserved regional factors to catch regional cross-sectional dependence. A diffusion of political ideas and change of norms across borders can affect democratic preferences. Moreover, the geographical clustering of oil fields and regional cultural and political differences could be driving the oil-democracy link. To control for cross sectional regional dependence, I use a nominal variable for regions from the V-Dem dataset. I code Algeria, Egypt, Libya, Morocco and Tunisia as North African countries and give this category the value 1, and all other countries as Sub-Saharan which I give the value 0. This allows me to capture regional factors in North Africa that might drive the oil-democracy relationship.

Finally, I used a lagged dependent variable as a proxy to capture factors that pertain to the relationship between existing institutions, resistance movements and democratization. The lagged dependent variable is included "as a means of capturing dynamic effects in political processes and as a method for ridding the model of autocorrelation" (Keele & Kyle, 2005: 4). Moreover, previous research on democracy protests finds that elections are associated with a significantly higher likelihood of democracy protests (Brancati, 2016: 106). A potential problem with using democracy as a lagged dependent variable is that when residual autocorrelation is present, the lagged dependent variable "causes the coefficients for explanatory variables to be biased downward" (Keele & Kyle, 2005: 2). However, the causal mediation analysis relies on properly specified models without omitted-variable bias. As a technique, mediation analysis is often applied when the relationship between an independent and a dependent variable has been established, and we try to explain why or how the two variables are related (MacKinnon, 2008: 23). In clinical studies, it is much easier to manipulate the environment to remove confounding variables and therefore reduce the risk of drawing incorrect conclusions. However, when applying the mediation technique to explain social phenomena that we cannot manipulate in controlled environments, it is critical to control for any confounding factors. Hence, introducing a lagged dependent variable in the models helps to minimize the risk of detecting a mediated effect which is actually explained by an omitted

variable. In the next section, I present my research design and the methodological steps taken to test the presented hypotheses.

3.1 Causal Mediation Analysis

Causal mediation analysis is applied to investigate the role of an intermediate variable (mediator) which is believed to lie in the causal path between the treatment (main independent variable) and the outcome (dependent variable) (Imai, Keele & Yamayoto, 2010: 51). The technique is commonly applied in psychology and clinical studies, and researchers in other social sciences have started to adopt and apply the technique to test causal mechanisms. A variable qualifies as a mediator if "it lies in the causal path between the treatment and the outcome, it must be a post-treatment variable that occurs before the outcome is realized" (Imai, Keele & Yamayoto, 2010: 54). In this paper, I have argued based on previous studies on oil and democracy that the relationship between oil wealth and democracy could be mediated by depressed mobilization. According to the presented theory, both differences in the number of organizations that participate in a resistance campaign and differences in the probability the presence of a trade union in a resistance campaign can be mediating factors that explain the link between oil and democracy.

As previously discussed, the causal mediation analysis includes two steps. Firstly, a set of regression models are fitted. Secondly, the estimates of the average causal mediated effects are computed from those fitted models (Tingley, Yamayoto, Hirose, Keele & Imai, 2014: 1). While these steps may seem simple enough, it is exceedingly difficult to establish causal pathways in a proper empirical manner. In social science, this is especially difficult because well-established claims about causal mechanisms are hard to come by (Green, Ha and Bullock, 2010). This is also true for this paper, and in the literature, it is only the negative relationship between oil and democracy that has achieved a consensus status. While the role of the civil society and civil resistance, and more specifically the civil society effect, has been proposed as mechanisms that explain the negative effect of oil on democracy, the civil society effect remains insufficiently tested in large N-analysis.

This paper contributes to the literature on oil and democracy by applying mediation analysis to empirically test the chain of relations between oil wealth, actualized mobilization and democracy to examine if there is any evidence for the civil society effect. Previous papers on the use of

mediation analysis in social science highlight the difficulties of the mediation design. Green, Ha and Bullock (2010) describe one of the challenges as follows:

> Conventional regression approaches to the study of mediation rely on strong and often implausible assumptions, even when applied to data in which a causal factor has been manipulated experimentally. (Green, Ha and Bullock, 2010: 202)

The degree to which this challenge is met, depends on the specification of the regression models. I discuss this in the next chapter on Ordinary Least Squares (OLS) and logistic regression, where I present assumptions for OLS and logit models and discuss why the regression models used to compute the average causal mediated effects do not violate the assumptions to a degree which makes the mediation analysis design futile. If there is a significant average causal mediated effect of either less diverse coalitions or a lower probability of the presence of a trade union in a resistance campaign in countries with petroleum wealth in Africa, the regression models must first provide evidence for: i) a significant relationship between the treatment variable and the outcome variable, ii) a significant relationship between the treatment variable and the mediator and, iii) a significant relationship between the mediator and the outcome variable.

If the results show a significant relationship between the treatment variable and the outcome, the treatment variable and the mediator, and the mediator and the outcome variable, it is still difficult to successfully demonstrate a mediating effect. Green, Ha and Bullock argue that "even when causal relationships are firmly established, demonstrating the mediating pathways is far more difficult—practically and conceptually—than is usually supposed" (Green, Ha and Bullock, 2010: 202). The degree to which this is possible relies on the specification of the regression models.

Other scholars on mediation analysis highlight different challenges when applying mediation analysis techniques on time-series cross-sectional data. While using time-series cross-sectional data allows us to investigate how causal effects are transmitted over time because we can observe change within and across units over time, there are some limitations when using cross-sectional data to describe longitudinal effects in mediation analysis. Based on Gollob and Reichardt (1991), MacKinnon (2008) outlines three limitations when using time-series cross-sectional data:

1. It takes time for variables to exert their effects.

2. Variables have effects on themselves, for example, M is related to M at a later time.

3. The size effect depends on the time lag.

(MacKinnon, 2008: 195)

Previously in this paper, I argue that based on when we measure the change in the outcome variable democracy, we can capture different effects of actualized mobilization and oil wealth. Following this, I run the analyses with three different outcome variables. I apply democracy measured one year after the observation year (t) as a dependent variable to capture the effect of oil wealth and actualized mobilization on instant liberalization. Furthermore, I apply democracy measured three years after the observation year (t) as a dependent variable because previous empirical research on political protest in Africa find that the median interval between a campaign onset and regime change was 36 months for the 35 of the countries that underwent a change of regime in 1994 (Bratton & van der Walle, 1997). I also argue that the effect of actualized mobilization can be observed on medium-term democracy, which is why I also apply democracy measured five years after the observation year (t) as a dependent variable. Consequently, the first limitation is addressed by using different dependent variables to take temporal precedence into account.

The second limitation is that variables can affect themselves over time. For instance, it is not unlikely that previous levels of actualized mobilization can affect mobilization in the future, and previous levels of democracy will always be the best predictor of democracy. When residuals correlate over time, the models suffer from autocorrelation. In the next section where I address the assumptions for OLS and logistic regression, I explain how I account for autocorrelation when estimating the models. The third limitation when using cross-sectional data to describe longitudinal effects is that the size effect depends on the time lag. As I run sets of models using three democracy variables led by one, three and five years to account for temporal precedence on the effect size of the explanatory variables and the mediators on democracy, the results will give us a better understanding of when we should expect the effects to be statistically significant and when we should expect the effect size to be largest. However, it is important to note that I am not able to detect a longer-term effect of oil on democracy because the ARC dataset only has data from 1990-2014, and therefore the time frame is too short to estimate the models with for instance democracy scores measured 10 years after the observation year (t+10).

3.2 Ordinary Least Squares and Logistic regression

To successfully detect any causal mediation effect, the regression models should not violate any of the assumptions for the specific models. To test H1: "Oil wealth is related to lower levels of democracy through less diverse resistance campaigns", I first run three linear models (1a, 1b and 1c) to estimate the effect of oil and gas wealth on the number or organizations that participate in resistance movements. Secondly, I run three linear models (2a, 2b and 2c) on the effect of oil and gas income and the diversity of coalitions on democracy. I run a total of six linear models to test this claim because I test the relationship with three dependent variables; the polyarchy index led by one, three and five years. Then I estimate the average causal mediated effect with robust standard errors on the pairwise models (1a-2a, 1b-2b, 1c-2c). Each of these models should not violate any assumptions for OLS regression.

There are five assumptions for OLS regression:

> 1. Linearity says that the dependent variable is formulated as a linear function of a set of independent variables and the error (disturbance) term.
>
> 2. Exogeneity says that the expected value of disturbances is zero or disturbances are not correlated with any regressors.
>
> 3. Disturbances have the same variance (3.a homoskedasticity) and are not related with one another (3.b nonautocorrelation)
>
> 4. The observations on the independent variable are not stochastic but fixed in repeated samples without measurement errors.
>
> 5. Full rank assumption says that there is no exact linear relationship among independent variables (no multicollinearity) (Park, 2011: 7).

It is commonly known that the OLS estimated standard errors can be highly inaccurate when the technique is applied to time-series cross-sectional data (TSCS) (Wooldridge, 2009). The individual effect of each country and each time period should be zero for OLS to produce efficient and consistent parameter estimates (Park, 2011: 7). It is likely that there are some individual characteristics unique to each country that can affect oil wealth, civil resistance and levels of democracy. This can be a problem which violates assumptions 2 and 3. However, while cross-sectional correlation is commonly addressed by running the model with panel-corrected standard

errors (Beck & Katz, 1995), this estimator is not supported by the mediation function. A solution could be to run the models with a dummy variable for each country to account for country-specific effects (Park, 2011). However, this is not a very efficient strategy because by including a parameter for each country, the model loses n degrees of freedom and returns less efficient estimators (Park, 2011: 9). Other fixed-effects models such as for instance the within transformation allows us to measure changes within each unit, but this is a poor strategy in this paper as oil wealth do not vary at all for some countries between 1990-2014. The dependent variable democracy has also little variation over time for many countries because of the "slow-changing nature of domestic correlates of democracy" (Brancati & Lucardi, 2916: 2). In general, fixed-effects are not well suited with data for "which within-cluster variation is minimal or for slow changing variables over time" (Torres-Reyna, 2007: 10).

As a solution to these challenges, I introduce a lagged polyarchy variable to the models to capture the dynamic effects of political processes that are not included in the model, and as a method for reducing the bias that can arise from autocorrelation (Keele & Kyle, 2005: 4). To account for cross-sectional dependence, I add regional democracy scores as a control variable. I also run the mediation analysis with Huber-White heteroskedasticity-consistent estimator to get robust standard errors.

In terms of assumption 4, I have a fairly balanced panel with many observations on the independent variables. The Ross-Mahdavi dataset on oil and gas, the World Bank data and the V-Dem data are widely considered to be reliable indicators. While the ARC dataset is not yet published, the project has measured organizational participation in a systematic and transparent manner, and the coders have completed reliability tests to avoid systematic measurement errors, which increase the reliability of the data (Pinckney, Butcher & Braithwaite, 2018). I therefore argue that assumption 4 is met in my analysis. Finally, the last assumption is that there should be no multicollinearity. Firstly, if any of the predictors are perfectly correlated, the predictor will be omitted from the models, which they are not. We can therefore assume that none of the predictors perfectly predict one another. Moreover, since multicollinearity mainly gives the effect of having a lower sample size which inflates the standard errors (Mehmetoglu & Jakobsen, 2017: 147), it is more likely that I fail to detect a significant relationship rather than detect a non-significant relationship. I test for this using variance inflation factors (VIF). Generally speaking, if the test produces VIF estimates

over 10, the model suffers from multicollinearity. However, the results from the VIF test do not detect any serious threats from multicollinearity. Finally, the theory presented clearly suggests that democracy should be a linear function of the variables included in my model. When we are not conducting a classical experiment with control over all confounding variables, I argue that we can never fully assume that this assumption is met with our model. However, the theoretically founded control variables are included to address the problem of endogeneity.

To test H2: "Oil wealth is related to lower levels of democracy through a negative impact on the likelihood of a trade union's participation in a civil resistance campaign", I first run three logit models (3a, 3b and 3c) to estimate the effect of oil and gas wealth on the probability of a trade union's participation in a resistance campaign. Secondly, I run three linear models (4a, 4b and 4c) on the effect of oil and gas wealth and the presence of a trade union in a maximalist campaign on democracy. I run a total of six linear models to test this claim because I test the relationship with three dependent variables: the polyarchy index led by one, three and five years from the observation year (t). Then I estimate the average causal mediated effect with heteroskedasticity-resistant standard errors on the pairwise models (3a-4a, 3b-4b, 3c-4c).

The mediate function instantly recognizes the estimation techniques used to produce the models and adjusts the simulation accordingly, even when we use both OLS and logits models as input in the same simulation, so the crux of the issue is to ensure that the models are properly specified. The linear models measuring the effect of oil wealth and the presence of a trade union in a campaign on democracy are almost identical to the linear models measuring the effect of oil wealth and number of organizations participating in a campaign on democracy. The only difference between these models is the mediator variables. By controlling for the same set of covariates as described in the previous section on the linear models and conducting the same tests, I have reduced the effects of omitted variable bias that could arise from unobserved factors related to democracy, oil wealth and civil resistance. As for the logit models, each model has to meet the following four assumptions to get unbiased and sufficient estimates of the logit parameters:

1. The model must be correctly specified; that is, the logit of Y is a linear function of the X-variables.

2. No important variables must be left out of the model, and no unnecessary variables should be included.

3. Each observation needs to be independent of the other observations.

4. None of the explanatory variables must be linear functions of the other X-variables, as this will result in multicollinearity

(Mehmetoglu & Jakobsen, 2017: 168)

To meet the first assumption, the logit of Y (the presence of a trade union) needs to be a linear function of the explanatory variables. A way to ensure that this assumption is met is to transform variables that do not exhibit a linear relationship with the logit of the Y (Mehmetoglu & Jakobsen, 2017: 167). However, any transformation of the X-variables should be theoretically founded, and not a result of trying to make the data fit the models. Previously in this paper, I explain that log transformations of variables measuring monetary values is common in the social sciences because we understand money in multiplicative terms rather than additive terms. Log transformation can also help to reduce the effect of outliers. For instance, extremely high populations or extremely violent conflicts can skew our data and exaggerate the effect of outliers on our results. After transforming the necessary X-variables, I argue that the logit models do not violate the first assumption.

The second assumption can only be met if the included X-variables are grounded in solid theoretical arguments for a linear relationship between the logit of Y and the explanatory variables. Whether or not this assumption is met, remains a question of theory. I argue that the presented theory on the role of trade unions in resistance and factors that can influence their behaviour increases the validity of the models, but we can never fully assume that this assumption is met. The third assumption states that each observation should be independent of the other observations. The model is not properly specified if residuals correlate across time or sections. As in the linear models, I add a regional dummy to control for regional cross-sectional dependence. I also run the mediation analyses with robust standard errors to account for autocorrelation. Finally, the fourth assumption says that the models must not suffer from multicollinearity. I test for multicollinearity by running a VIF test on all models and find no evidence of problematic multicollinearity in the models. Following this, I argue that the logits models are also properly specified.

4.0 Results

In this section, I report the results from my analyses. I first present the results from testing the chain of relations between oil and gas income, diverse coalitions measured as the number of organizations that participate in a maximalist dissent in a given country-year, and democracy. Secondly, I present the results from testing the chain of relations between oil and gas income, the presence of a trade union in a resistance campaign, and democracy.

4.1 Oil and gas income, diverse coalitions and democracy

Table 4. 1: Baseline models for the effect of oil on number of organizations in a campaign

	Dependent variable:		
	Log no. organizations *OLS*		
	Model 1a	Model 1b	Model 1c
Log. Oil and gas income pc_{t-1}	0.011856	0.011856	0.010767
	(0.013)	(0.013)	(0.013)
Urban pop $(\%)_{t-1}$_	-0.006969**	-0.006969**	-0.007731**
	(0.002)	(0.002)	(0.003)
Log. Population $_{t-1}$	0.157508***	0.157508***	0.165091***
	(0.022)	(0.022)	(0.022)
Log. GDP pc $_{t-1}$	0.119502**	0.119502**	0.131258***
	(0.037)	(0.037)	(0.038)
GDP Growth $_{t-1}$	-0.003895	-0.003895	-0.006827*
	(0.004)	(0.004)	(0.003)
Civil Society index $_{t-1}$	0.565187**	0.565187**	0.493264**
	(0.18)	(0.18)	(0.182)
Log battle-related deaths $_{t-1}$	0.085252***	0.085252***	0.080765***
	(0.01)	(0.01)	(0.001)
Region dummy	-0.031191	-0.031191	-0.136053
	(0.098)	(0.098)	(0.101)
Polyarchy $_{t-1}$	-1.075615***	-1.075615***	-1.171775***
	(0.251)	(0.251)	(0.233)
Intercept	-2.455536***	-2.455536***	-2.730499***
	(0.447)	(0.447)	(0.491)
Observations	1155	1115	1066
Adjusted R2	0.1824	0.1824	0.1973

Note: *** = p < 0.001, ** = p < 0.01, * = p < 0.05, . = p < 0.1

Models 1a, 1b and 1c are the output of three linear regression models that measure the effect oil and gas income and the other control variables on the mediator: the number of organizations that participate in a resistance campaign in a given country-year. Model 1a and 1b are identical, while model 1c has different estimates. This is because model 1c has less observations than the others as the subset of the data which is used for the regression includes the five year-led of the polyarchy variable which reduces the time-series by two years, but the included variables in the models are the same. None of the models find a significant effect of oil and gas income on the number of organizations that participate in a campaign. Consequently, the effect of oil wealth on democracy does not run through broad-based coalitions as a key assumption to be able to detect a mediated effect is that the relationship between the independent variable (oil income) and the mediator (the number of organizations that participate in a resistance campaign) is statistically significant. I will return to discuss this finding in the discussion.

In all models, the percentage of urban population significantly decreases the number of organizations that participate in a resistance campaign, while GDP per capita significantly increases the number. GDP growth has a negative and significant effect on the number of organizations that participate in maximalist dissent in model 1c, while it misses significance in model 1a and 1b. Brancati (2016) argues that we should expect increased protests when the economic conditions are bad, and the results show that economic recession the previous year increases the number of organizations that participate in maximalist dissent. Moreover, a 1% increase in the total population significantly increases the dependent variable by roughly 16% in all models.

Both an increase in the civil society index and battle-related deaths the previous year increases the number of organizations that participate. An increase in the civil society index increases the capacity for collective can reflect and thus the latent potential for mobilization. The significant effect of battle-related deaths on the number of organizations that participate in maximalist dissent can reflect levels of conflict and continued resistance. 1% increase in battle-related death the previous year increases the dependent variable number of organizations that participate in maximalist dissent by 9 percent in model 1a and 1b. the region dummy (1= North Africa, 0 = all else) is associated with a correlated with a higher level of organizations, but the result is not

significant in any of the models. Finally, the polyarchy index is significantly and negatively correlated with the number of organizations.

The most important finding from models 1a, 1b and 1c is that the proposed link between oil wealth and actualized mobilization measured as the number of organizations that participate in maximalist dissent is not reflected in the empirical findings. In fact, oil and gas income is positively correlated to the number of organizations that participate in a resistance campaign in a given country-year, but the effect is far from significant in all models and the results cannot be generalized. In the next section, I present the results from the outcome models where I test how the treatment variable (oil and gas income) and the mediator (number of organizations that participate in maximalist dissent) on democracy measured at one (t+1), three (t+3) and five (t+5) years after the observation year (t).

Table 4. 2: Baseline models for oil and gas income and number of organizations that participate in maximalist dissent effect on democracy led by 1, 3 and 5 years

	Dependent variable:		
		Polyarchy *OLS*	
	Model 2a: *1-year lead*	Model 2b: *3-year lead*	Model 2c: *5-year lead*
Log oil and gas income pc_{t-1}	-1.530e-03	-0.0053838***	-0.008393***
	(1.211e-03)	(0.058)	(0.002)
Log. No. organizations	-6.815e-03*	-0.003992	-0.0029167
	(1.211e-03)	(0.004)	(0.005)
Urban pop $(\%)_{t-1}$	-6.918e-06	0.0004346	0.0007674*
	(2.398e-04)	(0.0003)	(0.0003)
Log. Population $_{t-1}$	1.996e-03	0.0048259 .	0.0081498*
	(2.154e-03)	(0.003)	(0.004)
Log. GDP pc $_{t-1}$	2.569e-03	0.0056861	0.0098554 .
	(3.631e-03)	(0.005)	(0.006)
GDP Growth $_{t-1}$	-3.658e-04	-0.0004723	-0.0003811
	(2.589e-04)	(0.0003)	(0.0004)
Civil Society index $_{t-1}$	1.817e-01***	0.2101201***	0.2132451***
	(1.829e-02)	(0.023)	(0.027)
Log battle-related deaths $_{t-1}$	-2.467e-03*	-0.0032017*	-0.0027226 .
	(1.052e-03)	(0.001)	(0.002)
Region dummy	6.145e-03	-0.0103966	-0.0151695
	(9.496e-03)	(0.012)	(0.015)
Polyarchy $_{t-1}$	6.780e-01***	0.5466245***	0.4787914***
	(2.243e-02)	(0.03)	(0.035)
Intercept	-1.188e-02	-0.0402928	-0.0959028
	(4.377e-02)		
		(0.058)	(0.07)
Observations	1155	1155	1066
Adjusted R2	0.8411	0.7227	0.6402

Note: *** = p < 0.001, ** = p < 0.01, * = p < 0.05, . = p < 0.1

Models 2a, 2b and 2c are the outputs from three linear regressions testing the effect of oil wealth, the mediator (number of organizations) and the other control variables on the dependent variable democracy measured at one (t+1), three (t+3) and five (t+5) years after the observation year (t). In model 2a, oil and gas income per capita is negatively correlated with democracy, but the results miss statistical significance. However, oil and gas income per capita is significantly and negatively correlated with democracy in model 2b and 2c. 1% increase in oil wealth increases democracy (t+3) by 0.000054 units, and by 0.000084 units when democracy is measured five years after the observation year (t) (oil and income is measured one year before the observation year (t)).

This supports previous studies on the effect of oil on democracy, and in the mediation analyses we should expect to observe a significant average direct effect when we use models 1b-2b and 1c-2c to estimate the average causal mediated effects. The percentage of urban population is only significantly and positively correlated with democracy in model 2c when the dependent variable is the five-year led polyarchy index, while it is not significant in model 2a and 2b. Population is not significant in model 2a, but it is associated with higher levels of democracy in model 2b, and positively and significantly correlated with democracy in model 2c. GDP per capita is only positively associated with democracy in model 2c, and not significant in model 2a and 2b. GDP growth is not significantly correlated to democracy in any of the models.

The civil society index is significantly and positively correlated with democracy in all models. This is not surprising as an increase the subcomponents that constitute the index measure different aspects of organizational freedom, and these should be especially correlated with subcomponents of the polyarchy index such as freedom of expression and associational autonomy. Even so, the results are significant when controlling for previous levels of democracy, and the VIF test does not reveal any serious multicollinearity problems between the core civil society index and the polyarchy index.

The most important finding is that diverse coalitions measured as the number of organizations that participate in maximalist dissent are not positively correlated with democracy in any of the models. In model 2a, it is significantly and negatively correlated to democracy, while in model 2b and 2c the results miss significance. According to these results, diverse coalitions do not increase levels of democracy which means that the negative effect of oil on democracy does not run through more

narrow-based coalitions in countries with oil wealth. Interestingly, the other variable in the models that capture the robustness of civil society, core civil society index is a significant and substantive predictor of democracy in all models, and it also significantly predicts a higher number of civil society organizations in resistance campaigns in model 1a, 1b and 1c. While the number of organizations that participate in maximalist dissent is a measure of actualized mobilization, the core civil society index can be perceived as a measure for the latent potential of civil society. This suggests that the number of organizations that participate in maximalist dissent might be a poor operationalization to test if governments use their oil wealth to stifle or suppress independent civic organizations that might favour democratization, and the failure to detect a significant effect can reflect a different relationship between diverse coalitions and democracy in Africa than what the presented theory suggested. I will return to this point in the discussion.

Battle-related deaths significantly predicts lower levels of democracy in model 2a and 2b, while it narrowly misses significance in model 2c. Paul Collier once said that conflict is development in reverse (2007). The results suggest that violent conflict has immediate and destructive consequences for the prospects of democracy, but the effect stabilizes and miss significance when we measure democracy six years after the conflict. None of the presented models find evidence for the claim that countries in North Africa have lower levels of democracy compared to all other countries when controlling for other factors.

Finally, the lagged polyarchy index is significantly correlated with future levels of democracy. A potential problem is that neither of the presented models have been adjusted for autocorrelation, and if residual autocorrelation is present, the lagged dependent variable can cause coefficients for other explanatory variables to be biased downward, which in turn can result in a failure to detect a significant relationship between other variables and democracy. In the following section I present the results of the quasi-Bayesian Monte Carlo simulation of the average causal mediated effect with Huber-White's heteroskedasticity-consistent estimator to get robust standard errors.

4.1.1 Average Causal mediated effect using Quasi-Bayesian Confidence Intervals

Table 4. 3: Average causal mediated effect using Quasi-Bayesian Confidence Intervals – number of organizations and 1-year lead

	B-coeff	CI Lower 95%	CI Upper	Sig.α

Average causal mediated effect	-8.18e-05	-3.38e-04	0.00	0.39
Average direct effect	-1.58e-03	-3.97e-03	0.00	0.17
Total effect	-1.66e-03	-4.06e-03	0.00	0.15
Prop. Mediated	3.32e-02	-3.24e-01	0.65	0.44
Sample size used: 1155 Simulations: 1000				

The table above shows the results of the mediation analysis of oil and gas income, number of organizations and democracy (t+1). As expected, the average direct effect of oil on democracy is only significant on the 10 percent level in this output, which reflects the findings in model 2a. Moreover, the total effect is almost identical to the average direct effect which tells us that the number of organizations do not add much explanatory value to model 2a. Finally, the average causal mediated effect (ACME) is not significant. Consequently, the first output does not suggest that there is a chain of relations between oil wealth, diverse coalitions and democracy that explains the direct effect of oil on democracy.

Table 4. 4: Average causal mediate effect using Quasi-Bayesian Confidence Intervals – number of organizations and 3-year lead

‘	B-coeff	CI Lower 95%	CI Upper	Sig.α
Average causal mediated effect	-4.78e-05	-3.00e-04	0.00	0.67
Average direct effect	-5.33e-03	-8.43e-03	0.00	<2e-16
Total effect	-5.38e-03	-8.55e-03	0.00	<2e-16
Prop. Mediated	4.44e-03	-2.53e-02	0.06	0.67
Sample size used: 1155 Simulations: 1000				

Table 4.4 shows the output of the quasi-Bayesian Monte Carlo simulation of the mediation effect with model 1b and 2c as input. Here we can see that both the average direct effect of oil on democracy and the total effect is statistically significant and almost identical, which again tells us that the effect of the mediator (number of organizations) is not large. Furthermore, the ACME is

insignificant. Another important point is that if we had detected a significant ACME, the number of organizations would not be a mediator in which the negative relationship between oil wealth and democracy would run through, because it does not amplify the negative effect of oil on democracy. The number of organizations that participate in maximalist dissent is negatively (but statistically insignificantly) correlated with democracy, and oil and gas income is positively correlated with number of organizations. Hence, a negative relationship between oil wealth and democracy in Africa does not run through more narrowly based coalitions. The graphic below show that the ACME is almost 0, and the effect is statistically significant. Following this, the results presented in table 4.4 do not suggest that there is a chain of relations between oil wealth, diverse coalitions and democracy that explains the direct effect of oil on democracy.

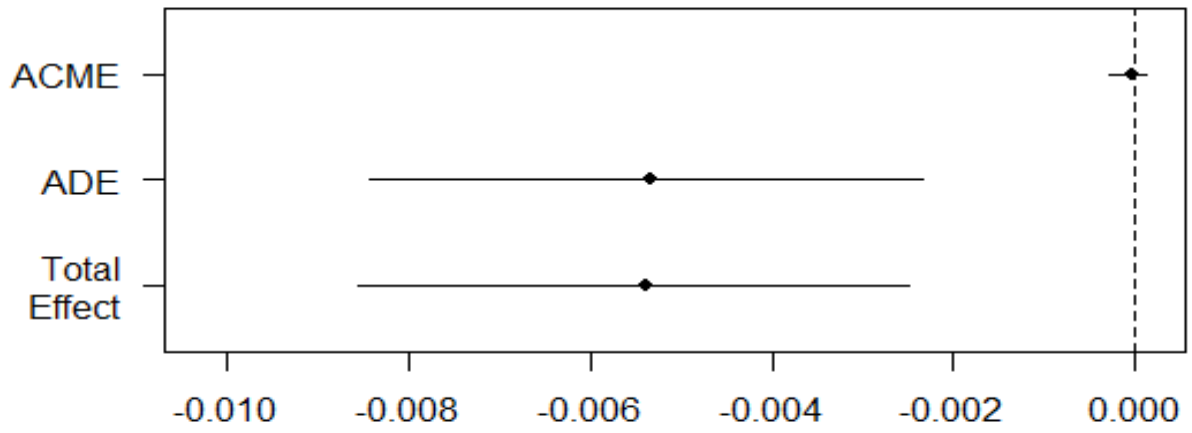


Figure 4: Average causal mediated effect of number of organizations that participate in maximalist dissent on democracy (t+3)

Table 4. 5: Average causal mediate effect using Quasi-Bayesian Confidence Intervals – number of organizations and 5-year lead

	B-coeff	CI Lower 95%	CI Upper	Sig.α
Average causal mediated effect	-3.06e-05	-3.02e-04	0.00	0.8
Average direct effect	-8.43e-03	-1.25e-02	0.00	<2e-16
Total effect	-8.46e-03	-1.24e-02	0.01	<2e-16
Prop. Mediated	9.30e-04	-1.80e-02	0.00	0.8
Sample size used: 1066 Simulations: 1000				

The mediation output above presents the results from the simulation with model 1c and 2c as input. The results are similar to the previously presented tables. The ACME is insignificant, it does not perform as expected according to the presented theory and the average direct effect and the total effect is almost identical. From this, I conclude that according to the initial analyses, the negative effect of oil wealth on democracy in Africa does not run through more narrowly based coalitions.

As the results above picture, the relationship between oil and democracy is not mediated by the quantity of organizations that participate in maximalist dissent in a given-country year. The next step is to examine if the relationship between oil and democracy is mediated through the types of organizations that participate in maximalist dissent. In the next section of this paper, I present the results from testing the chain of relations between oil and gas income, the probability of the presence of a trade union in maximalist nonviolent dissent and democracy in Africa measured at one (t+1), three (t+3) and five (t+5) years after the observation year (t).

4.2 Oil and gas income, the presence of a trade union in a resistance campaign and democracy

Table 4. 6: Baseline models for the effect of oil on the probability of the presence of a trade union in a resistance campaign

	Dependent variable:		
	Trade union *Logits*		
	Model 3a	Model 3b	Model 3c
Log. Oil and gas income pc_{t-1}	-0.0123152**	-0.0123152**	-0.0146053***
	(0.004)	(0.004)	(0.004)
Urban pop $(\%)_{t-1}$_	-0.0017714*	-0.0017714*	-0.0017656*
	(0.001)	(0.001)	(0.001)
Log. Population $_{t-1}$	0.0050118	0.0050118	0.0055069
	(0.007)	(0.007)	(0.007)
Log. GDP pc $_{t-1}$	0.0767562***	0.0767562***	0.0797550***
	(0.012)	(0.012)	(0.012)
GDP Growth $_{t-1}$	-0.0016672*	-0.0016672*	-0.0017578 .
	(0.001)	(0.001)	(0.001)
Civil Society index $_{t-1}$	0.1397182*	0.1397182*	0.1721008**
	(0.056)	(0.056)	(0.057)
Log battle-related deaths $_{t-1}$	-0.0053089 .	-0.0053089 .	-0.0056908 .
	(0.003)	(0.003)	(0.003)
Region dummy	0.0073920	0.0073920	-0.0035592
	(0.031)	(0.031)	(0.032)
Polyarchy $_{t-1}$	-0.3005779***	-0.3005779***	-0.3915766***
	(0.072)	(0.072)	(0.073)
Intercept	-0.4224001***	-0.4224001***	-0.4352198**
	(0.139)		
		(0.139)	(0.143)
Observations	1155	1155	1066

Note: *** = p < 0.001, ** = p < 0.01, * = p < 0.05, . = p < 0.1

Model 3a, 3b and 3c are the output of three logit models that measure the effect oil and gas income and the other control variables on the mediator, the presence of a trade union in a resistance campaign in a given country-year. Model 3a and 3b are identical, while model 3c has different estimates. Again, this is because model 3c has less observations than the others as the dataset used in model 3c includes the five year-led polyarchy variable which reduces the time-series by two years, but the same variables are included in all models. In table 4.6 we can see that oil and gas income per capita is significantly and negatively correlated to the probability of a trade union's participation in maximalist dissent in all models. This gives support to the presented theory and case literature that suggests that governments with oil wealth can use the largesse of its wealth to dampen pressures from trade unions or coopt them if necessary.

The percentage of urban population significantly predicts a lower probability of a trade union's participation in all models. GDP per capita is not significantly correlated with a higher probability in any of the models. Declining GDP growth significantly predicts a higher probability of a trade union promoting maximalist claims in model 3a and 3b, while it narrowly misses significance in model 3c. Given the nature of trade unions, which is to promote workers' rights and interests, this finding is in accordance with the presented theory that suggests that the labour movement is more likely to protest when economic opportunities are low. An increase in the robustness of civil society predicts a higher probability of the presence of a trade union in the campaign. This most likely reflects that countries where trade unions enjoy associational freedom are more likely to experience protests where trade unions participate as they can operate more freely without fear of repression. Furthermore, battle-related deaths are associated with a lower probability of a trade union's participation in a campaign in model 3a, 3b and 3c. The regional dummy does not yield any statistically significant results, which means that unobserved regional factors in North Africa do not explain changes in probability of a trade union's participation in a resistance campaign when controlling for other factors. Finally, higher levels of democracy decrease the probability of the participation of a trade union in all three models, and the findings are highly significant.

While the results presented in table 4.1 failed to detect a significant effect of oil wealth on the number of organizations that participate in a civil resistance campaign, all the models in table 4.6 find that oil wealth has a significant negative effect on the probability of the presence of a trade union in a civil resistance campaign. Consequently, we have successfully completed the first step

of the mediation analysis which is to establish a significant relationship between the independent variable and the mediator. The next step is to test if both the independent variable “oil and gas income” and the mediator “the presence of a trade union in a campaign” have independent significant effects on the dependent variable democracy. In the next section, I present the effect of the treatment variable (oil and gas income) and the mediator (the presence of a trade union in a resistance campaign) on democracy measured at one (t+1), three (t+3) and five (t+5) years after the observation year (t).

Table 4. 7: Baseline models for oil and gas income and number of organization's effect on democracy led by 1, 3 and 5 years

	Dependent variable:		
	Polyarchy *OLS*		
	Model 4a: *1-year lead*	Model 4b: *3-year lead*	Model 4c: *5-year lead*
Log oil and gas income pc_{t-1}	-1.736e-03	-0.0051659**	-0.0079852***
	(1.281e-03)	(0.002)	(0.002)
Trade union dummy	-1.017e-02	0.0215428 .	0.0300704*
	(9.174e-03)	(0.012)	(0.015)
Urban pop $(\%)_{t-1}$	2.256e-05	0.0005005	0.0008430*
	(2.399e-04)	(0.0003)	(0.0003)
Log. Population $_{t-1}$	9.740e-04	0.0040892	0.0075027*
	(2.111e-03)	(0.003)	(0.003)
Log. GDP pc $_{t-1}$	2.535e-03	0.0035555	0.0070743
	(3.690e-03)	(0.005)	(0.006)
GDP Growth $_{t-1}$	-3.562e-04	-0.0004209	-0.0003083
	(2.596e-04)	(0.0003)	(0.0004)
Civil Society index $_{t-1}$	1.794e-01***	0.2049338***	0.2066312***
	(1.746e-02)	(0.023)	(0.027)
Log battle-related deaths $_{t-1}$	-3.102e-03**	-0.0034276**	-0.0027870 .
	(9.634e-04)	(0.001)	(0.001)
Region dummy	6.008e-03	-0.0106804	-0.0146657
	(9.514e-03)	(0.012)	(0.015)
Polyarchy $_{t-1}$	6.823e-01***	0.5573937***	0.493984***
	(2.243e-02)	(0.029)	(0.035)
Intercept	5.585e-04	-0.0213906	-0.1216493
	(4.346e-02)		
		(0.057)	(0.074)
Observations	1155	1155	1066
Adjusted R2	0.8405	0.7232	0.6415

Note: *** = p < 0.001, ** = p < 0.01, * = p < 0.05, . = p < 0.1

Models 4a, 4b and 4c are the outputs from three linear regressions testing the effect of oil wealth, the mediator trade union and the other control variables on the dependent variable democracy measured at one (t+1), three (t+3) and five (t+5) years after the observation year (t). In model 4a, oil and gas income is not significantly correlated to the dependent variable democracy (t+1). However, in model 4b and 4c higher levels of oil and gas income is significantly correlated to lower levels of democracy (t+3 and t+5). The results in table 4.7 also find empirical support for the claim that oil wealth impedes democracy. In model 4a the presence of a trade union in a civil resistance campaign is correlated with lower levels of democracy, but the results are not significant. However, the direction of the coefficient changes in model 4b and 4c. In model 4b, the presence of a trade union in a maximalist dissent is associated with higher levels of democracy, but the result is only significant at the ten percent level. However, in model 4c the presence of a trade union in a maximalist dissent is significantly correlated with higher levels of democracy.

Because model 4b finds an association between the mediator variable trade union and democracy, the pairwise models 3b and 4b almost meet the second necessary assumptions for a mediation analysis be able to find a significant average causal mediation effect; that both the mediator and the independent variable are significantly related to the dependent variable. However, the most exiting finding is that we observe a significant relationship between the presence of a trade union in a maximalist dissent and democracy (t+5). Following this, the pairwise models 3c-4c find: i) a significant relationship between the treatment variable and the outcome variable, ii) a significant relationship between the treatment variable and the mediator, and iii) a significant relationship between the mediator and the outcome variable. Hence, the mediation analysis that uses 3c and 4c as input to compute the average causal mediation analysis might detect a significant mediated effect of the presence of a trade union in a resistance campaign on medium-term democracy. It is important to keep in mind that the presented results in table 7 already find that oil wealth decreases the probability of the participation of a trade union in an event of maximalist dissent, but it remains to be tested if the link between oil and democracy runs through this effect.

The percentage of urban population is not significantly correlated to democracy in model 4a and 4b, but in model 4c a higher percentage of urban population increases the levels of democracy and the results are significant on the 5 percent level. As a proxy for modernization, this suggests that

there is some support for the claim that modernization can drive democratization, but the effect is only significant on democracy (t+5). Nor GDP growth or GDP per capita is significantly correlated with democracy in any of the models in table 4.7. An increase in the civil society index is significantly correlated with higher levels of democracy in all three models, while the severity of violent conflict measured as battle-related deaths again significantly decreases levels of democracy in model 4a and 4b, but it is only associated with lower levels of democracy in model 4c.

The regional dummy is not significant in any of the models. This suggest that unobserved regional features in North Africa cannot explain lower levels of democracy when controlling for other factors. Finally, the lagged dependent variable is positively and significantly correlated with future levels of democracy in all three models. In the next section, I present the results from the quasi-Bayesian Monte Carlo simulation of the average causal mediated effects which is estimated using White's heteroskedasticity-consistent estimator for the covariance matrix.

4.2.1 Average Causal mediated effect using Quasi-Bayesian Confidence Intervals

Table 4. 8: Average causal mediated effect using Quasi-Bayesian Confidence Intervals – trade unions and 1-year lead

	B-coeff	CI Lower 95%	CI Upper	Sig.α
Average causal mediated effect	0.000125	-0.000235	0.00	0.46
Average direct effect	-0.001766	-0.003959	0.00	0.13
Total effect	-0.001641	-0.0038	0.00	0.14
Prop. Mediated	-0.051057	-0.742886	0.57	0.51
Sample size used: 1155 Simulations: 1000				

The table above shows the output of the mediation analysis using model 3a and model 4a as input. As I fail to detect a significant effect of oil wealth on the probability of the presence of a trade union in a campaign in model 3a, and find no significant effect of the presence of a trade union in a resistance campaign or oil and gas income on democracy one year after in model 4a, it is no surprise that the results from the simulation fail to detect a significant direct effect of oil on democracy. Consequently, we cannot detect an average causal mediated effect.

Table 4. 9: Average causal mediated effect using Quasi-Bayesian Confidence Intervals – trade union and 3-year lead

	B-coeff	CI Lower 95%	CI Upper	Sig.α
Average causal mediated effect	-0.000268	-0.000893	0.00	0.288
Average direct effect	-0.005197	-0.008336	0.00	0.002
Total effect	-0.005465	-0.0085553	0.00	0.002
Prop. Mediated	0.041793	-0.038124	0.18	0.29
Sample size used: 1155 Simulations: 1000				

The table above show the output from the mediation analysis using model 3b and model 4b as input. As previously mentioned, the pairwise models 3b and 4b almost meet the second necessary assumptions for a mediation analysis be able to find a significant average causal mediation effect; that both the mediator and the independent variable are significantly related to the dependent variable. In model 3b, we saw that oil and gas income significantly predicts a lower probability of a trade union's presence in a campaign, while in model 4b oil and gas is significantly correlated with lower levels of democracy three years after and the presence of a trade union in a resistance campaign is associated with higher levels of democracy (t+3).

The average direct effect and the total effect on democracy are significant, but the coefficients are slightly different. The estimated average causal mediated effect shows that there is a small mediated effect, but the ACME is not significant. The output supports previous research on oil and democracy that finds a negative effect of oil wealth on democracy. However, the results from the mediation analysis does not find a significant chain of relations between the lagged independent variable oil wealth, the mediator trade union and the dependent variable polyarchy led by three years. Below is an illustration of the total effect, average direct effect and the average causal mediated effect. Compared to the previously presented illustration of the output of the mediation analysis of oil wealth, number of organizations and democracy, we can see that the ACME in this illustration is slightly larger, but the effect is very small and the results are insignificant.

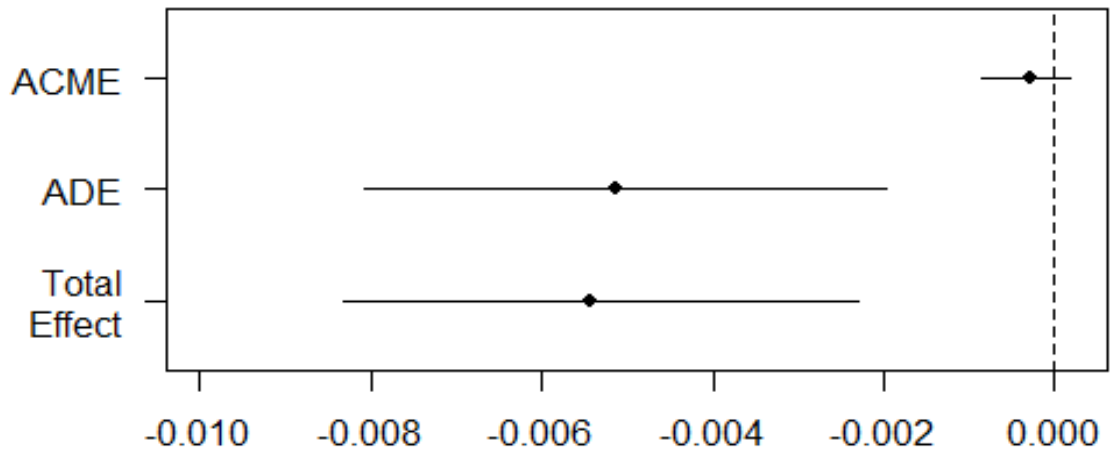


Figure 5: Illustration of the average causal mediated effect of trade unions on the link between oil wealth and democracy (t+3)

Table 4. 10: Average causal mediated effect using Quasi-Bayesian Confidence Intervals – trade union and 5-year lead

	B-coeff	CI Lower 95%	CI Upper	Sig.α
Average causal mediated effect	-0.000442	-0.001225	0.00	0.18
Average direct effect	-0.008020	-0.011583	0.00	<2e-16
Total effect	-0.008462	-0.012136	0.00	<2e-16
Prop. Mediated	0.048986	-0.021196	0.16	0.18
Sample size used: 1066 Simulations: 1000				

Finally, the table above presents the results from the mediation analysis using model 3c and 4c as input. In model 3c, I find a significant effect of both the treatment variable (oil and gas income) on the mediator (the presence of a trade union in a resistance campaign. Furthermore, in model 4c

I find a significant effect of the treatment variable (oil and gas income) and the mediator (the presence of a trade union in a resistance campaign) on the outcome variable (democracy t+5). However, the results in table 11 fails to detect a significant average causal mediated effect. Both the average direct effect and the total effect on democracy is significant, but the effect of oil on democracy does not run through a lower probability of the presence of a trade union in a resistance campaign. Below is a plot of the average causal mediated effect.

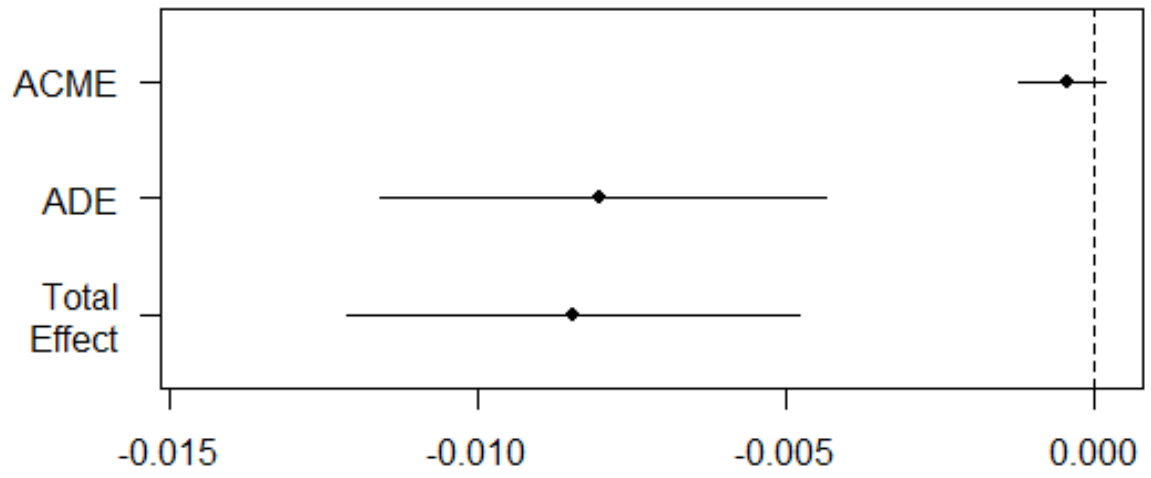


Figure 6: Illustration of the average causal mediated effect of trade unions on the link between oil wealth and democracy (t+5)

Here we can see that while this simulation which used model 3c and 4c as input detected a slightly larger average causal mediated effect than the other simulations, the mediated effect is not significant. Following this, I conclude that while it looks like countries with oil wealth are able to stifle, coopt or suppress trade unions, the link between oil wealth and medium-term democracy does not run through this effect.

4.3 Robustness tests

So far, the results do not find support for the claim that the link between oil and democracy runs t hrough depressed mobilization. While the R mediation package offers a sensitivity analysis via th

e **medsens** (Tingley et al., 2014), this would only be relevant if the previously presented results d etected a significant average causal mediated effectIn this part of the paper, I run some robustnes s tests to make sure that potential biases in the data are not driving my results. Firstly, Weidmann and Ward (2010) argue that it is important to control for temporal dependencies in the data. It is p ossible that the coverage of protest events has increased over time because of growth in the medi a sector and the emergence of new media. Therefore, the results from my analyses can be disturb ed by an unobserved time-trend. I run a simple robustness test on this by adding a linear time-tren d to the models that measure the effect of oil and gas wealth on the mediators (number of organiz ations that participate in a maximalist dissent and the presence of a trade union in a resistance ca mpaign) . If this changes the estimates of the independent variable (oil and gas income), the previ ously presented results might be disturbed by temporal dependence in the data.

Table 4. 11: Robustness test of OLS models

	Dependent variable:		
	Log no. organizations *OLS*		
	Model 5a	Model 5b	Model 5c
Log. Oil and gas income pc_{t-1}	0.00069	0.00069	0.004741
	(0.013)	(0.013)	(0.013)
Urban pop $(\%)_{t-1}$_	-0.010187***	-0.010187***	-0.010483***
	(0.002)	(0.002)	(0.003)
Log. Population $_{t-1}$	0. 134995***	0. 134995***	0.147889***
	(0.022)	(0.022)	(0.022)
Log. GDP pc $_{t-1}$	0.142591***	0.142591***	0.156007***
	(0.038)	(0.038)	(0.038)
GDP Growth $_{t-1}$	-0.005655*	-0.005655*	-0.008410**
	(0.003)	(0.003)	(0.003)
Civil Society index $_{t-1}$	0.632578***	0.632578***	0.563458**
	(0.18)	(0.18)	(0.179)
Log battle-related deaths $_{t-1}$	0.084253***	0.084253***	0.079444***
	(0.01)	(0.01)	(0.01)
Region dummy	0.080435	0.080435	-0.101825
	(0.096)	(0.096)	(0.1)
Polyarchy $_{t-1}$	-1.449564***	-1.449564***	-1.507465***
	(0.231)	(0.231)	(0.235)
Year	0.022872***	0.022872***	0.02225***
	(0.003)	(0.003)	(0.004)
Intercept	-47.8248823***	-47.8248823***	-46.774906***
	(6.54)	(6.54)	(7.1)
Observations	1155	1115	1066
Adjusted R2	0.2149	0.2149	0.2251

Note: *** = p < 0.001, ** = p < 0.01, * = p < 0.05, . = p < 0.1

The results in table 4.11 show that over time, the reported number of organizations that participat e in maximalist dissent increases. The linear time-trend year is significantly and positively related to the dependent variable. However, while for instance the percentage of urban population and G DP per capita become more significantly correlated to the number of organizations that participat e in a maximalist dissent, the effect of the treatment variable oil is still insignificant. Therefore, th e failure to detect a significant chain of relations between oil wealth, diverse coalitions and demo cracy in Africa is not caused by temporal dependencies in the reported number of organizations i n resistance campaigns.

Table 4. 12: Robustness test for logit models

	Dependent variable:		
	Trade union *Logits*		
	Model 6a	Model 6b	Model 6c
Log. Oil and gas income pc_{t-1}	-0.0131237***	-0.0131237***	-0.0157775***
	(0.004)	(0.004)	(0.004)
Urban pop $(\%)_{t-1}$_	-0.0022962*	-0.0022962*	-0.002310**
	(0.0009)	(0.0009)	(0.001)
Log. Population $_{t-1}$	0.0013391	0.0013391	0.0021603
	(0.007)	(0.007)	(0.007)
Log. GDP pc $_{t-1}$	0.0805228***	0.0805228***	0.0845697***
	(0.012)	(0.012)	(0.012)
GDP Growth $_{t-1}$	-0.0019543*	-0.0019543*	-0.0020657*
	(0.001)	(0.001)	(0.001)
Civil Society index $_{t-1}$	0.1539749**	0.1539749**	0.1857566**
	(0.056)	(0.056)	(0.057)
Log battle-related deaths $_{t-1}$	-0.0054791 .	-0.0054791 .	-0.0059477 .
	(0.003)	(0.003)	(0.003)
Region dummy	0.0154254	0.0154254	-0.0030996
	(0.031)	(0.031)	(0.031)
Polyarchy $_{t-1}$	-0.3615823***	-0.3615823***	-0.4568831***
	(0.073)	(0.073)	(0.073)
Year	0.0037312***	0.0037312***	0.004386***
	(0.001)	(0.001)	(0.001)
Intercept	-7.8237562***	-7.8237562***	-0.4352198**
	(2.07)		
		(2.07)	(0.143)
Observations	1155	1155	1066

Note: *** = p < 0.001, ** = p < 0.01, * = p < 0.05, . = p < 0.1

Table 4.12 presents the results of the logit models where the dependent variable is the presence of a trade union in a resistance campaign. In model 6a and 6b, the treatment variable oil becomes more significant when adding a linear time-trend, and in model 6c the coefficient slightly increases. Therefore, it is possible that the previous analyses failed to detect a significant mediated effect of oil wealth on democracy through the probability of the presence of a trade union in a resistance campaign. To test if the results changes when I control for temporal differences in the data, I rerun the OLS models with the treatment variable (oil and gas income) and the mediator (trade union dummy) on the dependent variable democracy measured at one (t+1), three (t+3) and five (t+5) years after the observation year (t) (See appendix for results). However, as the tables below show, there is still no significant average causal mediated effect when temporal dependencies on the reported presence of a trade union in a resistance campaign is accounted for. In table 4.15, the estimation of the causal mediated effect shows that there is almost a significant chain of relations between oil wealth, the presence of a trade union and medium-term democracy in Africa, and compared to the previously presented result, the average causal mediated effect is significant on the ten percent level.

Table 4. 13: Average causal mediated effect using Quasi-Bayesian Confidence Intervals – trade union and 1-year lead

	B-coeff	CI Lower 95%	CI Upper	Sig.α
Average causal mediated effect	0.000117	-0.000292	0.00	0.54
Average direct effect	-0.0016	-0.003940	0.00	0.2
Total effect	-0.001483	-0.003823	0.00	0.22
Prop. Mediated	-0.050417	-1.12368	1.13	0.62
Sample size used: 1155 Simulations: 1000				

Table 4. 14: Average causal mediated effect using Quasi-Bayesian Confidence Intervals – trade union and 3-year lead

	B-coeff	CI Lower 95%	CI Upper	Sig.α
Average causal mediated effect	-0.000339	-0.00992	0.00	0.18
Average direct effect	-0.004755	-0.007637	0.00	<2e-16
Total effect	-0.005094	-0.007877	0.00	<2e-16
Prop. Mediated	0.060917	-0.031737	0.24	0.18
Sample size used: 1155 Simulations: 1000				

Table 4. 15: Average causal mediated effect using Quasi-Bayesian Confidence Intervals – trade union and 5-year lead

	B-coeff	CI Lower 95%	CI Upper	Sig.α
Average causal mediated effect	-0.000583	-0.001409	0.00	0.078
Average direct effect	-0.007255	-0.010946	0.00	<2e-16
Total effect	-0.007838	-0.011392	0.00	<2e-16
Prop. Mediated	0.068360	-0.007407	0.21	0.078
Sample size used: 1066 Simulations: 1000				

The results from the robustness tests support the initial results, and I conclude that controlling for a linear time-trend did not make the average causal mediated effects significant.

5.0 Discussion

As previously mentioned, the "oil curse" on democracy has reached near consensus in the academic discourse. The funny thing about curses in stories is that in the quest to lift it, the heroes usually begin by acquiring information on how the curse works, or else any attempts to lift it will be futile. For instance, one of the first objectives is to determine when the curse was cast. Previous literature on oil and democracy argue that oil mainly became a hindrance to democratic transition

after the transformative events of the 1970s when regimes gained access to revenues which were previously grabbed by foreign owned companies (Ross & Andersen, 2014; Ross, 2015). This suggests that when African governments could access a stream of revenues, the prospects for democratization changed, which brings us to the next question: why? The purpose of this paper of this paper has been to test one of the proposed explanations for the relationship between petroleum wealth and democracy. In this part of the paper, I will discuss the results presented in the previous chapter and address some potential weaknesses with my approach to answer the research question: *Does the relationship between oil wealth and democracy in Africa run through depressed mobilization?* To examine if the effect of oil wealth on democracy is mediated through depressed mobilization, I test two arguments: i) oil is related to lower prospects for democratization through less diverse resistance campaigns, and ii) oil is related to lower prospects for democratization through a lower probability of the presence of a trade union in a resistance campaign.

Previously in this paper, I present a chapter on the determinants of successful resistance campaigns. Following previous studies, I argue that more organizationally diverse resistance campaigns are more likely to lead to democratizations due to a larger base which the campaign can draw upon which allow them to mobilize more people, give them more tactical diversity which increases resilience and the ability to target more segments of society which increases leverage (Chenoweth & Stephan, 2011). If oil wealth is related to lower prospects for democratization, the effect could run through less diverse resistance campaigns if countries with oil wealth use the largesse of their wealth to stifle or suppress these organizations (Ross, 2009). However, after running a set of mediation analyses where I test the chain of relations between oil and gas wealth, the number of organizations that participate in maximalist dissent in a given country-year and democracy, I find no support for this claim. Oil and gas wealth is not significantly correlated with the number of organizations that participate in resistance campaigns in any of the models. Consequently, the results do not suggest that countries with oil wealth successfully forestall the formation of independent civil society groups that favour democracy as this should have been reflected in a lower number of organizations independent from the state that participate in maximalist dissent in a given country-year. Moreover, a higher number of organizations that participate in maximalist dissent has a significant negative effect on the democracy measured one year after, while the effect is not significant in the models where the dependent variable democracy is measured three and five years after the observation year (t).

As a result, I fail to detect a significant chain of relations between oil wealth, diverse coalitions and democracy. However, the analyses still provide some interesting information on democratization in Africa. From the analyses presented in this paper, it does not look like more organizationally diverse campaigns increase the prospects for democratization in Africa. While these findings stand in contrast to the presented theory, I argue that a potential problem in my analyses is the operationalization of diversity. The presented case literature on civil resistance shed some light on why the total number of organizations that participate in maximalist dissent might not be a good proxy for organizational diversity. For instance, the case of the Occupy Nigeria movement shows that campaigns might suffer from organizational diversity if the organizations have different campaign goals and prefer different approaches to resistance, and thus are unable to provide a unified front against the regime (Branch & Mampilly, 2015) This can provide opportunities for regimes to coopt key organizations and withstand pro-democracy protests. Moreover, cases studies of civil resistance in Africa argue that African civil societies suffer from fragmentation – organizations have been forced to balkanize into elite or grassroot entities which do not represent a broad sector of society (Kaiser & Okumu, 2004). Hence, a high number of organizations that participate in maximalist dissent can in some cases captured more fragmented coalitions with less durable organizations. Following this, future studies on the effect of diverse resistance campaigns on the prospects for democratization in Africa could investigate other proxies for diversity, for instance the number of types of organizations that participate in political contention.

After employing model-based causal mediation analysis to test the chain of relations between oil and gas income (treatment), diverse coalitions measured as the number of organizations that participate in a maximalist dissent in a given country-year (mediator), and democracy (outcome), I find no support for any average causal mediated effects. I therefore reject **H1:** *Oil wealth is related to lower levels of democracy through less diverse resistance campaigns.* Consequently, there is a chance that I am committing a type 2-error which is a false acceptance of the null hypothesis. As discussed above, the operationalization of the mediator might not capture the diversity per se, but fragmentation of civil society and less durable organizational structures. Future studies on diverse coalitions and prospects for democratization should explore other operationalizations. Furthermore, the mediator measures the number of organizations that participate in maximalist dissent does not separate between violent groups and nonviolent groups.

Nonviolent campaigns are more likely to success compared to violent campaigns (Chenoweth & Stephan, 2011), and it is a possibility that the small minority of violent groups is affecting the results. However, I argue that if this was the case, it would not increase the probability of a type 2-error, but a type 1-error which is false rejection of the null hypothesis. The reason for this is the fact that countries with oil wealth are more conflict prone than countries without petroleum wealth (Ross, 2012; Ross, 2015). And because violent campaigns have higher physical barriers, more informational problems because contenders do not want to reveal information about their fighting capacity to the enemy, higher moral barriers and more commitment problems (Chenoweth & Stephan, 2011), they are less likely to attract a wide range of organizations compared to nonviolent campaigns. Therefore, while this could have led to a negative correlation between oil wealth and the number of organizations that participate in maximalist dissent in a given country-year, my results find no significant relationship between oil and gas income and the number of organizations that participate in maximalist dissent.

In the chapter on the determinants for successful resistance campaign, I present previous studies on democratization that argue that trade unions can play an important role in domestic democratization processes. The effect of oil on democracy might run through the absence of key actors in resistance campaigns. Trade unions bring leverage and resilience to resistance campaigns because of durable mobilization infrastructures and interdependence with the state (Butcher, Gray & Mitchell, 2018). However, the purpose of trade unions is to promote the interests of the workers they represent. If states with oil revenues can use the largesse of their wealth on patronage when necessary, they can dampen the pressure from these organizations. To test this claim, I run a set of mediation analyses where I test the chain of relations between oil and gas wealth, the presence of a trade union in an event of maximalist dissent in a given country-year and democracy.

In the first step of the mediation analysis, I run three logit models which measure the effect on oil and gas income (treatment variable) on the probability of the presence of a trade union in a resistance campaign (mediator) controlled for other explanatory variables related the treatment and the mediator. Higher levels of oil and gas income significantly decreases the probability of the presence of a trade union in a resistance campaign in all three models. These results support previous research on the effect of oil wealth which argue that countries with petroleum revenues can use the largesse of their wealth to dampen pressure from such organizations (Ross, 2009).

Secondly, I run three OLS models which measure the effect of oil and gas income lagged by one year (treatment) and the presence of a trade union in a resistance campaign (mediator) on democracy measured one, three and five years after the observation year (t). In the model where the dependent variable is the polyarchy variable measured one year after the observation year (t), I find no significant effect of oil wealth or the presence of a trade union in a resistance campaign on democracy measured one year after the observation year (t). However, in the second model where the outcome variable is the polyarchy score measured three years after the observation year (t), oil and gas income is significantly to lower levels of democracy, and trade unions are positively associated with higher levels of democracy. In the third model which applies the polyarchy score measured five years after the observation year (t) as the dependent variable, I find a significant negative effect of oil and gas wealth on democracy, and significant positive effect of the presence of a trade union in a resistance campaign. Following this, if oil wealth decreases the probability of the presence of a trade union in a resistance campaign, and the presence of a trade union in resistance campaign is positively correlated with democracy, it is possible that the negative effect of oil on democracy runs through the effect of oil on the presence of a trade union in a resistance campaign.

However, these results are not supported by the results from the mediation analyses because the average causal mediated effects are not significant. While I conclude that oil wealth decreases the probability of the participation of a trade union in maximalist dissent, and the participation of a trade union in maximalist dissent increases the prospects for democratization when I measure democracy five years after the observation year (t), the mediated very small and not statistically significant. Based on these findings, I reject **H2**: *Oil wealth is related to lower levels of democracy through a negative impact on the likelihood of a trade union's participation in a civil resistance campaign*. Again, by rejecting the hypothesis, there is a possibility that I am committing a type 2-error. I first test for this by running a robustness test by including a linear time-trend to control for potential temporal tendencies in the ARC dataset, but the average causal mediation effects do not become significant. Another potential challenge with the results is the specification of the models. In the data and research design chapter, I describe the specifications of the models and the steps I take to reduce potential biases. One of them is to introduce the lagged democracy variable as an explanatory variable as a proxy to capture factors that pertain to the relationship between existing institutions, resistance movements and democratization. Lagged dependent variables can

sometimes cause the estimates of the other explanatory variables to be biased downwards, and thus the models that are used as input in the mediation analysis might understate the real effect of the treatment variable and the mediator on democracy in Africa. Consequently, the average causal mediated effect might not be strong enough to reach statistical significance. Future studies on the topic can explore the opportunity to employ instrumental variables for mobilization to examine if the effect of oil wealth on democracy runs through actualized mobilization.

Unlike the mediator used to capture diverse campaigns, none of the trade unions that participate in maximalist dissent are violent groups, so the results are not potentially driven by group differences in the use of violent tactics. However, it is unlikely that all types of trade unions have a similar effect on the prospects for democracy. The trade union dummy is coded as one if there is evidence for the participation of a trade union in an event of maximalist dissent, and that includes all types of trade unions of different sizes, and both sectoral and national. It is reasonable to expect large national unions to have larger effect on democracy than small, sectoral unions with a narrower base of unionized workers. While I have argued that trade unions are key players in pro-democracy movements, this might not be true for all types of trade unions, and it is possible that the inclusion of these small trade unions make it less likely to detect a significant effect on democracy. Future studies in the topic should explore what kind of actors we should expect to increase the prospects for democracy in Africa.

Another potential drawback in this study is study is the length of the timeseries which is too short to capture the effect of depressed mobilization on longer-term democracy. I am not able to capture the effect of oil wealth and trade unions in resistance campaigns on longer-term democracy. Countries with oil wealth might be able to systematically withstand pro-democracy movements over longer period of time because they can stifle or suppress independent civil society organizations whenever they consider it necessary, and this can have longer-term effects on the prospects for democracy. Moreover, while members of the trade unions acted as generals in early protest waves in Africa (Mueller, 2018), they have later been joined by other types of organizations that might be important for the prospects for democracy, for instance other professional organizations and religious groups (Mueller, 2018; Kaiser &Okumu, 2004). Consequently, future studies on the link between oil wealth and democracy should explore if states with oil wealth are able to avoid unified fronts of key actors in pro-democracy movements because of the opportunity

to dampen social pressure from one or several groups by increasing public patronage or co-opting key organizations. A good way to test this could be to combine the presence of proposed key actors into a dichotomous variable that measures the participation of a mobilized coalition of key actors in maximalist dissent, and test if the relationship between oil and democracy runs through a lower probability of a coalition of key actors.

Previously in this paper, I presented some alternative explanations to the link between democracy. The link between oil and democracy can perhaps be better explained by the ability of the elite to maintain elite cohesion in the face of resistance campaigns, use repression with fewer consequences and ultimately concede to pro-democracy movements less often. The mediators which are applied to capture actualized mobilization in this paper (the total number of organizations that participate in resistance campaigns in a given country-year and the presence of a trade union in a resistance campaign in a given country-year) do not capture the outcome of the campaign. In this paper, I do not find any evidence to support the claim that the link between oil and democracy is explained by oil rich regimes propensity to spend their oil wealth to stifle or suppress independent civic organizations that might favour democratization (Ross, 2009) in terms of actualized mobilization, but the models do not capture the if the outcomes of the actualized mobilization have different results in countries in Africa with oil wealth.

6.0 Conclusion

In this paper, I have examined the relationship between oil wealth, mobilization and democracy in Africa to answer the question: Does the relationship between oil wealth and democracy in Africa run through depressed mobilization? In this context, I have chosen to focus on civil society organizations. Ross (2009) argues that the link between oil and democracy might run through the civil society effect which occurs when regimes use the largesse of their oil wealth to stifle or suppress independent civil society organizations that might favour democratization. This paper makes an attempt to bridge the gap between studies that show how oil impedes democracy and new knowledge on the role of mobilization, civil society organizations and nonviolent resistance in democratic transitions by combining structural and contingent approaches to explore the effect of oil wealth on democratization in Africa. To answer the research question, I have examined two different chain of relations. Firstly, I test if the relationship between oil wealth and democracy runs through less organizationally diverse coalitions in resistance campaigns. I measure diverse

coalitions as the number of organizations that participate in maximalist dissent in a given country-year. Secondly, I test if the relationship between oil and democracy runs through the absence of key actors in resistance campaigns which I operationalize as the participation of a trade union in maximalist dissent in a given country-year.

I use model-based causal mediation analysis to test the relationship between oil wealth, mobilization and democracy, and the empirical contribution of this paper is the results of these mediation analyses. More specifically, the paper tests two hypotheses: H1: "Oil wealth is related to lower levels of democracy through less diverse resistance campaigns" and H2: "Oil wealth is related to lower levels of democracy through a negative impact on the likelihood of a trade union's participation in a civil resistance campaign". The mediation analyses do not detect any significant average causal mediated effects. I therefore reject both hypotheses. However, the results from these analyses raises new interesting questions on democratization in Africa. Contrary to the presented theory in this paper, a high number of organizations that participate in maximalist dissent in a year (t) is not positively correlated with democracy one, three or five years after. This suggests that the narrative about diverse resistance campaigns might not apply to Africa. However, there are some points to consider before rejecting the idea of diverse coalitions. Firstly, the operationalization of diverse coalitions measures the total number of organizations, and not the total number of types of organizations. The latter would probably be a better operationalization of organizationally diverse coalitions. Secondly, a higher number of organizations might capture a fragmentation of civil society. African countries often have multiple ethnic and religious groups with different goals and interests, and this might make it difficult to provide a unified front against authoritarian regimes. Future research on pro-democracy movements in Africa could look closer at the link between diverse coalitions and democratization to examine if the relationship is curvilinear. However, based on the analyses presented in this paper, I argue that the link between oil and democracy does not run through less diverse resistance campaigns.

Moreover, while I fail to detect a significant mediated effect between oil wealth, the participation of a trade union in maximalist dissent and democracy, my results also show that countries with higher levels of oil income have a lower probability of experiencing the participation of a trade union in maximalist dissent in a given country-year. This lends support to the presented theory which states that oil rich countries have the opportunity to spend the largesse of their wealth to

dampen pressure from trade unions by for example increasing public patronage when economic conditions are bad. However, according to the results this does not explain the link between oil wealth and democracy as I fail to detect a significant mediated effect. Future studies on the topic can examine if there are similar results when including other types of organizations to measure the effect of key actors in resistance campaigns, for instance professional organizations, religious groups and women's organizations.

Based on the findings presented in this paper, I find no support for the claim that the link between oil wealth and democracy in Africa runs through depressed mobilization, and I argue that it is more likely that the oil-democracy link is caused by the ability of the elite to maintain elite cohesion in the face of resistance campaigns (even diverse movements), use repression with fewer consequences and ultimately concede to pro-democracy movements less often. However, further research is necessary before reaching a firm conclusion on this topic, and in the discussion I suggest several possible ways forward.

This study presents a new approach to test the proposed mechanisms for the relationship between oil wealth and democracy, the model-based causal mediation. The mediation design provides interesting opportunities to test causal pathways, and the development of a deeper understanding of the relationship between oil and democracy in Africa is a natural step forward in the discourse. To figure out how this relationship works is more than an academic exercise. In the past few years, several African countries like Zimbabwe, Senegal and Gambia have announced that they will begin exploration and drilling in new fields. Simultaneously, the demands put forth during the Arab spring did not lead to a democratic awakening for most of the oil rich countries in North Africa (Brancati, 2016: 179). The findings of this paper align with the academic discourse as it states the importance of understanding the posing challenges towards civil society organizations and democratization in Africa. A deeper understanding of the issues related to increased revenues from oil and gas is important to take a step towards an improved understanding of possible mechanisms that impede democratization in the region.

7.0 References

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Appendix

Average Causal mediated effect using bootstrapping

Average causal mediate effect – number of organizations and 1 year lead

‘	B-coeff	CI Lower 95%	CI Upper	Sig.α
Average causal mediated effect	-8.08e-05	-3.48e-04	0.00	0.39
Average direct effect	-1.53e-03	-3.86e-03	0.00	0.17
Total effect	-1.61e-03	-3.94e-03	0.00	0.17
Prop. Mediated	5.02e-02	-4.85e-01	0.52	0.5
Sample size used: 1155 Simulations: 1000				

Average causal mediate effect – number of organizations and 3 year lead

‘	B-coeff	CI Lower 95%	CI Upper	Sig.α
Average causal mediated effect	-4.73e-05	-2.76e-04	0.00	0.6
Average direct effect	-5.38e-03	-8.33e-03	0.00	<2e-16 ***
Total effect	-5.43e-03	-8.37e-03	0.00	<2e-16 ***
Prop. Mediated	8.71e-03	-2.20e-02	0.06	0.6
Sample size used: 1155 Simulations: 1000				

Average causal mediate effect – number of organizations and 5 year lead

	B-coeff	CI Lower 95%	CI Upper	Sig.α
Average causal mediated effect	-3.14e-05	-2.72e-04	0.00	0.76
Average direct effect	-8.39e-03	-1.20e-02	0.00	<2e-16
Total effect	-8.42e-03	-1.20e-02	0.00	<2e-16
Prop. Mediated	3.73e-03	-1.68e-02	0.04	0.76
Sample size used: 1066 Simulations: 1000				

Average Causal mediated effect using bootstrapping

Average causal mediate effect – trade union and 1 year led polyarchy

‘	B-coeff	CI Lower 95%	CI Upper	Sig.α
Average causal mediated effect	-0.000125	-0.000225	0.00	0.52
Average direct effect	-0.001736	-0.004448	0.00	0.16
Total effect	-0.001611	-0.004075	0.00	0.18
Prop. Mediated	-0.077770	-1.447225	0.69	0.54
Sample size used: 1155 Simulations: 1000				

Average causal mediate effect – trade union and 3 year led polyarchy

‘	B-coeff	CI Lower 95%	CI Upper	Sig.α
Average causal mediated effect	-0.000265	-0.000844	0.00	0.26
Average direct effect	-0.005166	-0.008314	0.00	<2e-16
Total effect	-0.005431	-0.008411	0.00	<2e-16
Prop. Mediated	0.048848	-0.038412	0.19	0.26
Sample size used: 1155 Simulations: 1000				

Average causal mediate effect – trade union and 5 year led polyarchy

‘	B-coeff	CI Lower 95%	CI Upper	Sig.α
Average causal mediated effect	-0.000439	-0.00125	0.00	0.17
Average direct effect	-0.007985	-0.01316	0.00	<2e-16
Total effect	-0.008424	-0.01364	-0.01	<2e-16
Prop. Mediated	0.052133	-0.03035	0.13	0.17
Sample size used: 953 Simulations: 1000				

Results from Robustness test 2: OLS – dependent: variable polyarchy, mediator: trade union

	Dependent variable:		
		Polyarchy *OLS*	
	Model 7a: *1-year lead*	Model 7b: *3-year lead*	Model 7c: *5-year lead*
Log oil and gas income pc_{t-1}	-0.0015962	-0.0047680**	-0.0079852***
	(0.001)	(0.002)	(0.002)
Trade union dummy	-0.0085351	0.0262047*	0.0300704*
	(0.009)	(0.012)	(0.015)
Urban pop $(\%)_{t-1}$	0.0001030	0.0007298*	0.0008430*
	(0.0002)	(0.0003)	(0.0003)
Log. Population $_{t-1}$	0.0015084	0.0056125*	0.0075027*
	(0.0002)	(0.003)	(0.003)
Log. GDP pc $_{t-1}$	0.0018528	0.0016114	0.0070743
	(0.004)	(0.005)	(0.006)
GDP Growth $_{t-1}$	-0.000311	-0.0002922	-0.0003083
	(0.0002)	(0.0003)	(0.0004)
Civil Society index $_{t-1}$	0.1770519***	0.1982785***	0.2066312***
	(0.018)	(0.023)	(0.027)
Log battle-related deaths $_{t-1}$	-0.0030689**	-0.0033342**	-0.0027870 .
	(0.001)	(0.001)	(0.001)
Region dummy	0.004809	-0.0140979	-0.0146657
	(0.01)	(0.012)	(0.015)
Year	-0.0005513 .	-0.0015713***	
	(0004)	(0.0004)	
Polyarchy $_{t-1}$	0.6918081***	0.5844859***	0.493984***
	(0.023)	(0.03)	(0.035)
Intercept	1.0948794 .	3.0975192	-0.1216493
	(0.65)	(0.7261)	(0.074)

Observations	1155	1155	1066
Adjusted R2	0.8408	0.7262	0.6475

Note: *** = p < 0.001, ** = p < 0.01, * = p < 0.05, . = p < 0.1

List of countries included in data:

Guinea-Bissau

Equatorial Guinea

Gambia

Mali

Senegal

Benin

Mauritania

Niger

Cote d'Ivoire

Guinea

Burkina Faso

Liberia

Sierra Leone

Ghana

Togo

Cameroon

Nigeria

Gabon

Central African Republic

Chad

Congo, Rep.

Congo, Dem. Rep.

Uganda

Kenya

Tanzania

Burundi

Rwanda

Somalia

Djibouti

Ethiopia

Eritrea

Angola

Mozambique

Zambia

Zimbabwe

Malawi

South Africa

Namibia

Lesotho

Botswana

Swaziland

Madagascar

Morocco

Algeria

Tunisia

Libya

Sudan

South Sudan

Egypt

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