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WEAPONS OF CHOICE

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ABSTRACT

Weapons of Choice*

We investigate the effect of natural resources on whether ethno-political groups choose to pursue their goals with peaceful as compared to violent means, distinguishing terrorism from insurgencies. We hypothesize that organizations are more likely to resort to terrorism rather than rebellion in richer countries where population mobilization is more difficult. We use data from the Minorities at Risk Organizational Behavior (MAROB) project, covering 118 organizations in 13 countries of the Middle East and North Africa over the 1980-2004 period. Our multinomial logit models combine group- and country-specific information and show that ethno-political groups are more likely to resort to rebellion rather than using peaceful means or becoming terrorists when representing regions rich in oil. Groups that participate in exerting power over their region are less likely to turn to large-scale violence.

JEL Classification: F51 and Q34
Keywords: oil, rebellion, resource curse and terrorism

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1. Introduction

The discovery and exploration of oil reserves gives rise to high hopes among the populations of these resource-rich countries. Resource-abundance can however also turn into a threat to stability and peace, particularly in poor and badly governed countries. While this aspect of the so-called "resource-curse" is widely discussed in the context of civil wars (e.g., Fearon and Laitin 2003, Collier and Hoeffler 2004), it has largely been neglected when analyzing the causes of terrorism. This neglect is surprising. In a large number of countries, natural resource abundance has disadvantaged the local population, leading to high regional unemployment and mass immigration (Karl 2007). It thus seems straightforward that marginalized populations in areas with a wealth of natural resources might resort to terrorism in order to express their grievances. This problem plays a particularly important role in the Middle East and North Africa (MENA) region, which has a large number of oil-rich, fragile states. Consider Iraq. Political groups such as the Kurdistan Democratic Party or the Patriotic Union of Kurdistan, which represent the Kurdish minority in the North of the country, first fought for more autonomy, then for their own state. During the course of this fighting, they have resorted to violent means, both at a terrorist scale and a larger battle-sized scale. While the public discourse of the movement focuses on the discrimination of this largest people without their own territory, petroleum reserves are likely to be another important driver of unrest. Despite obtaining significant regional autonomy in 1991, the situation has remained tense, with oil revenues being a main cause of conflict both among Kurds (Wimmer 2002) and between the Kurds and the national government (Chulov 2009).

In this paper, we investigate whether and to what extent the availability of oil determines if ethno-political organizations choose to pursue their aims with peaceful means, resort to terrorism, or start insurgencies, thus closing an important gap in the literature. Our focus is on political organizations claiming to represent the interest of specific ethnic populations before their own state, i.e., we look at activities within their own country.[1] To the extent that resorting to violence is a rational step taken by the respective organization, the type of violence applied is a strategic choice, depending on the organization's characteristics, the context, and the reaction of the state to its actions. As we argue in section 2, the 'choice of weapons' at the organizational level gives us some leverage to test for the importance of greed and grievances arising due to the existence of natural resources. If greed is the driving force, the aim of an organization will be to take control over the resource and to extract it for its own benefit, e.g., by ceding their territory from the rest of the country. To do so the organization would abandon peaceful political approaches. This means that, if greed is the dominant driver, we expect resource abundance to exclusively increase the risk of civil

[1] As Denny and Walter (2014) point out, the bulk of civil wars are initiated by an ethnic group, frequently as a consequence of grievances along ethnic lines.

war. In a similar way, if grievances play an important role, we expect the presence of resources to also lead to an increase in terror, for example due to inequalities in the allocation of returns from these resources or in the burden of environmental degradation arising from their exploitation. However, while some terrorists also aim at taking control over a region or country, such attacks are unlikely to be driven by greed predominantly.[2] While there are some studies on the country-level either predominantly focusing on greed or combining both lines of argument (see, inter alia, Collier and Hoeffler 2004, Collier et al. 2009, Reagon and Norton 2005) as well as a more recent article by Hunziker and Cederman (2012) analyzing the behavior of ethnic groups, we look at political organizations, thus adding an important perspective to the literature. As highlighted in Asal and Wilkenfeld (2013), the actions of an organization claiming to act on behalf of an ethnic group may not actually be representative of that group. At the same time, investigating ethnic groups in their entirety might hide important differences among the various organizations representing each group.

We test our hypotheses using data from the Minorities at Risk Organizational Behavior (MAROB) dataset, as we explain in more detail in section 3. In the same section we also explain how our multinomial logit panel models combine organization- and country-specific information to test for the determinants of an organization's choice between pursuing their goals with peaceful means, taking up arms for small-scale terrorist activities, or for a larger-scale rebellion.

We present our results in section 4. They show that insurgencies are more likely with larger resource extraction, both with respect to peace and to terrorism. The choice to engage in terrorist activities however is not affected by resource availability within a group's territory. This leads us to conclude that greed is the main channel through which natural resources affect violence. Ethno-political groups that participate in exerting power over the region they represent less frequently turn to insurgencies as a consequence of oil extraction compared to both peace and terrorism, while political and economic discrimination do not affect oil production's impact on the choice between violence or peaceful action.

The final section 5 concludes the paper.

2. Theory

As Hunziker and Cedermann (2012) point out, the civil war literature widely accepts the existence of a link between petroleum and intra-state conflict. Fearon and Laitin (2003), Humphreys (2005) and de Soysa and Neumayer (2007), among many others, find that countries rich in oil and gas have a higher risk of civil war. This is attributed to a number of factors that can broadly be classified to represent, first, greed or opportunity and, second, grievances. The greed-based hypothesis postulates that resources directly lead to rebellions or coups because controlling an area or state rich

[2] See Enders and Sandler (2012) and Brathwaite (2013) for a discussion of terrorists' motives.

in resources is comparably more valuable than one without such resources. The presence of natural resources has been shown to weaken institutions, as politicians have no incentives to develop them when they do not have to rely on a broad tax base (e.g., Fearon and Laitin 2003). Furthermore, resource abundance allows rebel groups easy access to finance, making revolutions more feasible (Collier et al. 2009). Natural resource abundance thus increases the incentives as well as the means and opportunities for dissenting groups to use violence to achieve their aims.

In contrast to the literature on larger scale civil unrest, natural resources hardly feature in the literature on what determines terrorism.[3] Exceptions to this are Tavares (2004), Bravo and Dias (2006) and Sambanis (2008). Tavares (2004) includes primary goods exports as a share of GDP as a measure of resource abundance in his analysis of what determines terrorism, but does not provide a specific theory as to why resources should matter. He does not find resource abundance to be associated with more terror – in fact he finds that resources reduce terror. Sambanis (2008) includes a binary variable indicating dependence on oil exports as a control variable in his cross-sectional analysis of what determines the existence of terrorism, and finds it not to be significant at conventional levels. Bravo and Dias (2006) test whether countries of geo-strategic importance are more prone to become victims of terror, and include the existence of large energy and mineral reserves among their variables of strategic importance. Their results show that top suppliers of minerals (but not of energy) experience more attacks, in a cross-section of 60 countries. Based on these papers, Gassebner and Luechinger (2011) include the share of a country's total exports made up by primary goods in their large-scale robustness analysis of what determines terror, exploiting varying definitions and sources of terrorism. Across their models, they do not find a robust relationship between the share of primary goods among a country's exports and the number of terrorist attacks against its citizens.

Arguably, presence of natural resources is important in determining the extent of terrorism as well as insurgencies. The neglect of natural resources in the literature on terrorism is thus surprising. Indeed, as de Soysa and Binningsbø (2009: 21) point out, there are strong reasons to expect natural resource abundance leads to the repression of large parts of the population. They cite the Venezuelan diplomat involved in founding the Organization of the Petroleum Exporting Countries (OPEC), Juan Pablo Pérez Alfonzo: "I call petroleum the devil's excrement. It brings trouble." The grievance-channel linking natural resources to civil war arguably applies to terrorism as well.

The empirical results in de Soysa and Binningsbø (2009) point to a substantial and robust effect of natural resource abundance on repression. Hunziker and Cederman (2012) show that violent reactions of ethnic groups become likely when members of the group feel themselves

[3] We refer here to oil, gas, diamonds and other non-renewable valuables rather than renewable resources such as wood or narcotics. There is a substantial literature on the relation between narcotics and terrorism, in particular regarding the financing of terrorist activity in Columbia (one example is Leech 2004).

deprived of their fair share of gains from natural resources and when these resources incur negative externalities on them. The examples of externalities that they give include the reorganization of land rights, pollution, disruptions of the labor market due to shifts in demand away from unskilled workers, large-scale in-migration, urbanization, and rapid centralization of state powers. They thus find the role of grievances to be of equal importance to that of greed in explaining civil war, rather than just having residual explanatory power.[4] Karl (2007) points out that the oil industry is highly capital-intensive and therefore creates few jobs, in particular for unskilled labor, and is dominated by foreigners, thereby marginalizing domestic businesses. He also stresses the absence of a significant multiplier effect of oil wealth, limited opportunities for technology diffusion, and consequently low living standards for large parts of the population in areas rich in oil. Among the unwelcome effects of oil Karl (2007) stresses increased prostitution, prevalence of HIV/AIDS, environmental damage, increases in the costs of living, and food instability. These all compound into a large amount of grievances potentially leading representatives of repressed minorities to resort to terrorist activities.[5]

Similar arguments can be made about participatory political institutions. Hunziker and Cederman (2012) find that the risk of civil war as a consequence of resource abundance is linked only to those groups that are excluded from central power as such groups perceive the interference by the central power, extraction, and the resulting externalities to be illegitimate. The effect of resources on terror should thus be mitigated with increased citizen participation in the wealth created by the resources and in deciding about how to exploit them (Karl 2007). We focus on political discrimination and democracy as well as access to political power to test this hypothesis.

As Karl (2007) points out, oil-induced income inequality is likely to be perceived as more severe compared to similar levels of inequality due to other reasons because the income generating process is perceived to be unfair. We therefore also interact our measure of resource abundance with economic discrimination.

So far, our hypotheses concern the choice of violence over peaceful means, but we have had no hypotheses regarding the likelihood of resorting to terrorism over insurgency or vice versa. This differs with respect to poverty. Terrorism is generally considered to be the "weapon of the weak." The stronger the state relative to dissenting groups, the higher the probability that such groups will turn to terrorism rather than other forms of violence.[6] We therefore expect organizations operating in resource rich areas to be more likely to resort to terrorism rather than rebellion in richer countries.

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[4] Also see Denny and Walter (2014).

[5] One might argue that natural resources would allow governments to buy consent or repress opposition, thereby reducing terror rather than increasing it (Karl 2007, de Soysa and Binningsbø 2009). However, such effects should be absorbed by control variables such as GDP per capita and democratic participation. We therefore hypothesize terror to increase as a consequence of natural resource abundance.

[6] According to Carter's (2014) game-theoretical analysis, states that are better able to fight groups with territorial objectives attract more terrorism.

In such countries mobilization of the population is more difficult given that the opportunity costs to rebel are higher for larger parts of the population. Additionally, the risk of engaging in violent activities is higher, increasing with the state's strength and the likelihood of being caught, injured, or killed. In contrast, when GDP per capita is lower and mobilization is therefore comparably easy, the availability of natural resources concentrated in a particular region makes rebellion more attractive. In poorer countries, governments frequently lack the resources to effectively address socio-political problems (de Soysa and Binningsbø 2009). In our empirical analysis, we therefore interact our indicators of resource abundance with per capita GDP, expecting the effect of resources on terror relative to insurgencies to increase with rising GDP per capita.[7]

3. Method and Data

Our approach follows a number of recent papers focusing on violent organizations, all relying on multinomial logit regressions. Among them, Gaibulloev and Sandler (2014) examine what determines how terrorist groups cease to exist. Asal et al. (2014) focus on an organization's choice to target civilians. Carter (2012) investigate the impact of state support on group survival, while Meierrieks and Krieger (2014) model the choice between terrorism and civil war, as we do here. We follow this literature and estimate our model as a multinomial logit. This allows us to determine differential impacts of the variables of interest on the strategic choice of the observed political organizations. This assumes that the process from peace to terrorism to insurgency is not continuous, i.e., it is not a process of (de-)escalation, but rather represents separate decisions. However, even if the process were ordered, the multinomial specification would still be important for us to be able to estimate separate coefficients for the explanatory variables for each possible outcome. When organizations engage in terror and larger scale insurgencies at the same time we code them as insurgencies, as our method of estimation requires the groups to be exclusive.[8]

We assume the three choices that every organization can take in each year (peace, terrorism, and insurgency) to be nested in organizations, as an organization's decisions in different years will not be independent from each other. We include random intercepts for each organization, thereby splitting the residual into one part that is identical for all decisions of the same group and one part that is specific to the choice of that organization in a particular year. We assume that the organizations' 'choice of weapon' in each year is conditionally independent given the organization

[7] Krueger and Maleckova (2003) show a higher standard of living to be positively correlated with the probability of becoming a terrorist. The results of Enders et al. (2014) show that terrorist attacks are most prevalent in middle-income countries over their whole sample period, and in lower income countries after 1993.

[8] Our results do not change when we omit those observations that are coded for more than one form of violence.

random effect and the explanatory variables.[9] Our reduced-form empirical model is at the organization-year level:

$$WEAPON_{i,t} = \alpha + \beta RESOURCES_{i,t-1} + \gamma X_{i,t-1} + \delta RESOURCES_{i,t-1} * X_{i,t-1} + \zeta Z_{i,t-1} + \varepsilon_{i,t}, \quad (1)$$

where *WEAPON* reflects organization *i*'s weapon of choice in year *t*, RESOURCES is our indicator of natural resource abundance in the preceding year, and *X* represents the variables we interact with oil production to test our hypotheses: (i) GDP per capita (in constant 2005 international dollars); (ii) two indicators for a groups' participation in power, and (iii) indicators of the group being economically or politically discriminated against. *Z* contains our control variables (at the country- and group-level) and ε is the error term.

Our main variables are taken from Asal et al.'s (2008) Minorities at Risk Organizational Behavior (MAROB) dataset. The dataset contains organization-level information on 118 political organizations claiming to represent the interests of all 22 ethno-political groups in 13 countries and territories of the Middle East and North Africa, over the 1980-2004 period.[10] Our dependent variable measures whether an organization is peaceful in a given year, whether it carries out any terrorist activity, or whether it is involved in a larger scale insurgency, thus ranging between zero and two. Distinguishing the two forms of violence is a key challenge to our econometric analysis. We will rely on a combination of action-based (the level of violence) and actor-based (the group's attributes) approaches (Asal et al. 2012). According to Mickolus et al. (2004: 2) "terrorism is the use or threat of use, of anxiety inducing extranormal violence for political purposes by any individual or group, whether acting for or in opposition to established government authority, when such action is intended to influence the attitudes and behavior of a target group wider than the immediate victims."[11] Criteria for the inclusion of a group in the MAROB database include that they must not be created by the government and that they have to be political in their goals and activities. Following a large number of previous studies, the definition for terrorism applied here is a narrow one, comprising violent attacks on civilians only (including non-security state personnel such as civil service personnel and government representatives that are not police, military, etc.), but excluding those on state institutions and the military, which are conceptually different and often termed as guerilla activities (see inter alia Abrahms 2012, Fortna 2014, Kydd and Walter 2006).[12] Specifically,

[9] We implement the model using the gllamm package in Stata 13.0 (Rabe-Hesketh et al. 2004). A possible third stage would be the country-level. However, due to the small number of countries in our sample the resulting model is fragile when clustering standard errors, including dummies for each country, or estimating a three-level model. We therefore do not use these models.

[10] The countries and territories included in the sample are Algeria, Bahrain, Cyprus, Iran, Iraq, Israel, Jordan, Lebanon, Morocco, Saudi Arabia, Syria, Turkey, West Bank and Gaza.

[11] See Enders and Sandler (2012) for a detailed discussion.

[12] Specifically, we code our dependent variable as terrorism when any of Asal et al.'s (2008) variables *orgst6* or *orgst7* are greater than zero, or *domorgviolence* equals one, four, or five. *Orgst6* is a three-scale ordinal

any group that attacked civilians directly on a low scale or forcefully secured their support is deemed to be a terrorist organization.[13] Large-scale violent events include those targeting security personnel and state institutions as well as those attacks that attempt to seize control over a town, guerilla activity, and civil wars fought by rebel military units with base areas. Violence arising from groups with control over a specific area with some degree of governance structure is also included in this category.[14]

Asal et al.'s (2008) data have two main advantages over alternative datasets. First, they are available at the organization- rather than the ethnicity- or country-level. Compared to data at the country level, this allows using geo-coded data on natural resources to test whether resources in a certain region affect violence related to the same region. More broadly, our data allow the investigation of more differentiated reasons for violence. Compared to the ethnic group-level, organization-level data allow exploiting variation in individual organizations' 'choice of weapons' that represent the same ethnicity. Rather than attributing violence to ethnicities as a whole, characteristics of groups from the same ethnicity can be distinguished (Asal and Wilkenfeld 2013). Second, the dataset includes peaceful as well as violent groups. This is contrary to most previous organizational-level studies that include organizations only once they become violent (Fortna 2014, Stanton 2013) and are therefore unable to examine the determinants of whether organizations choose to be violent per se (rather than the amount of violence). However, the data have a number of drawbacks as well that we would like to stress from the outset. The most important drawback is the limited regional coverage and the resulting small number of independent observations we can

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variable where values larger than zero indicate that a group forcefully secures financial, material, or personnel support from the local population. *Orgst7* is a three-scale ordinal variable, where values greater than zero imply that a group attacks civilians, including non-security state personnel. *Domorgviolence is* a six-scale ordinal variable where one indicates that an "organization is using violence as occasional strategy but is not specifically targeting persons," four implies that a group "is occasionally targeting civilians," and five shows that it is "targeting civilians regularly."

[13] The MAROB dataset defines terrorism in the narrow manner that we do, and this definition is similar to the criteria for inclusion in the most recent version of the Global Terrorism Database (GTD). Among the large number of definitions of terrorism, there are also broader ones encompassing those groups that mainly or exclusively attack state institutions. As our aim is to distinguish terror from broader insurgencies and to identify differences in their respective determinants, we choose this specific cutoff, while in reality the borders can be blurred. When we rely on the broader definition instead, our results regarding the determinants of violent behavior with peace as a base category remain very similar, while we hardly find differences between the two forms of violence.

[14] Specifically, we code our dependent variable as insurgency when Asal et al.'s (2008) variables *domorgviolence* equals two or three, *orgreb* is greater than two, or *orgst8 or orgst9 are* greater than zero. For *domorgviolence* this implies that an organization "is using violence regularly as a strategy but is targeting security personnel." *Orgreb* is an eight-scale ordinal variable where values greater than two imply that an organization is involved in "local rebellion," "small-scale guerrilla activity," "intermediate guerrilla activity," "large-scale guerrilla activity," or "civil war." *Orgst8 is a* three-scale ordinal variable with values greater than zero implying "small-scale" and "intermediate guerilla acivity"; *orgst9* is a three-scale ordinal variable where values greater than zero indicate that a group "controls movement into/ out of a territory" or "sets up government structures."

exploit for our regressions. The MENA region is different from other areas in a number of ways, so that we are unable to generalize our results to other regions of the world. What is more, while Asal et al. (2008) follow clear guidelines on how to code organizations' actions, the boundaries between terrorism and insurgencies in particular are sometimes blurred (Sambanis 2008), and the resulting data might be noisy. We have no reason, however, to expect a systematic bias in testing our hypotheses and aim at making this distinction as clear as possible by applying the strict definition described above.

We rely on two indicators for natural resource abundance, coded at the regional level. Our main resource indicator follows Hunziker and Cederman (2012) who use data from Horn's (2010) "Giant Oil and Gas Fields of the World" database which includes geocoded information on the location and size of petroleum occurrence in million barrels oil equivalents across the world (for fields containing at least 500 million barrels oil or gas equivalents). The data allow us to code the share of a state's oil reserves that is situated on a specific ethnic group's territory. We follow Hunziker and Cederman in using the annual value of a country's oil production (taken from Ross 2013) to estimate the return to oil production on a group's territory in a given year in 2009 US$.[15] The resulting resource-variable thus shows variation across groups and time and is well-suited to test for the importance of grievances. This is because the degree of oil extracted is what is likely to matter for grievance-inducing externalities, while the amount of wealth created is likely to determine perceptions about unfairly distributed gains from such resources. Given that the variable is highly skewed, we use it in logs.

Our second indicator of resource abundance is a binary indicator based on the geo-coded location of oil and gas fields in PRIO's Petroleum dataset v. 1.2 (Päivi et al. 2007).[16] Compared to the data in Horn (2010) it has the advantage of also including rather small fields. However, these data do not measure the degree of resource abundance. What is more, they hardly vary within groups in the same country and do not vary at all within the same country over time.

We use a number of variables to control for observed heterogeneity at the group and country level. At the group level, and also taken from the MAROB database, we control for the goals of a group. Specifically, we include indicator variables for organizations that aim to eliminate political, economic, or cultural discrimination, groups that aim for autonomy or independence, and groups that want to establish an Islamic state.[17] Asal et al. (2008) coded these variables based on the

[15] For a detailed discussion of the merits and drawbacks of this measure see Hunziker and Cederman (2012).

[16] Other, more easily lootable resources such as diamonds or narcotics might also be relevant for our hypothesis. However, such resources are hardly relevant in the region we consider here – the Middle East and North Africa.

[17] The goals of a group might reflect the degree of grievances it experiences and might thus close an important transmission channel for how resource abundance affects terrorism and insurgencies. When we exclude these variables, however, our results are very similar.

expressed aims and motivations of the groups as reported in newspapers and other sources. We expect fighting for autonomy or independence, or an Islamic state, to lead groups to taking up arms at a larger scale as these are goals that states do not usually give in to, considering how drastically this would cut into their authority and integrity. Organizations with "other" goals are the omitted category.

We control for whether organizations receive financial, political, humanitarian or military support from foreign states, as this is likely to fuel violence, for example through improved logistical support or finances. We control for negotiations between the state government and the political organization in the previous year, as members of the group that do not wish to reach an agreement with the state or that expect larger concessions when showing strength could opt for increased violence. In addition, we include whether or not the government uses violence against an organization, that is, if the organization is accepted as legal or if it faces lethal violence by the state.[18]

We also include variables from the Ethnic Power Relations dataset (Wimmer et al. 2009), measuring whether an ethnic group represented by an organization in our sample has political power at the regional level or has a share in central political power. In line with Dreher and Fischer (2010), we expect participation in power to reduce the extent of terrorism (and other forms of conflict). At the country level, we control for whether or not the country is a democracy, relying on indicators from Freedom House (2014) for the average of the civil liberties and political rights, ranging between one and seven, with higher values indicating less freedom.[19]

We include a country's logged GDP per capita (PPP) to proxy for its level of development. As Sambanis (2008) points out, the negative correlation between per capita GDP and civil war is widely accepted. GDP per capita however is not a robust determinant of terrorism (Abadie 2005, Sambanis 2008 – the evidence in Gassebner and Luechinger 2011 is mixed).[20]

We control for ethno-linguistic fractionalization because it is a common control variable in the conflict literature, assuming that a higher degree of fractionalization leads to a higher potential for conflict. However, the empirical evidence regarding the effects of fractionalization is mixed. We take these data from Yeoh (2012), measured as the probability that a randomly selected pair of individuals in a society will belong to different groups, ranging from 0 to 1, i.e., from complete homogeneity to every individual belonging to a separate group. In line with the previous literature

[18] This is a binary indicator that equals one when Asal et al.'s (2008) three-scale ordinal variable *stateviolence* is larger than one, indicating that a state is using "periodic lethal violence" or "consistent lethal violence against the organization."

[19] The empirical evidence on the effect of democracy on terror is mixed (Sandler 1995, Gassebner and Luechinger 2011), while a negative correlation between civil war and democracy is well-established (e.g., Sambanis 2008).

[20] According to Enders et al. (2014), the effect of GDP per capita on terrorist attacks is non-linear in their global sample. It is arguably linear among the sample of lower-middle and middle income countries that we consider here.

we expect greater levels of repression in countries with larger populations, where the chance for conflict is larger (de Soysa and Binningsbø 2009). Gassebner and Luechinger (2011) find population to be among the few variables that robustly increase terrorism. Collier and Hoeffler (2004) and Collier et al. (2009) find the risk of civil war to increase with population. Following Hunziker and Cederman (2012) we also control for the logged value of oil produced at the national level, which could be related to facets of the resource curse relevant at the country- rather than the group-level. Our sample consists of 13 countries only, however, so that we put less weight on the results for this variable compared to regional oil. We report the sources of all variables and their descriptive statistics in Appendix A, while Appendix B reports the exact definitions of all variables.

4. Results

Table 1 shows the results for our main specifications, with terrorism being the omitted base category, while Table 2 shows them with peace as the omitted category. The coefficients thus show what determines an organization's choice to pursue its goals with peaceful means or an insurgency, relative to choosing terrorism in Table 1, and give us the ability to compare the choice of the two forms of violence with respect to peace in Table 2. We report relative risk ratios (or odds ratios) that can be directly interpreted with respect to the quantitative effect of the variables. The exponentiated multinomial logit coefficients that we show in the table provide an estimate of the risk of the respective category relative to the omitted base category. It shows to what extent the relative risk ratio of an outcome changes relative to the reference group following a unit change in a variable, for constant values of the other variables in the model.[21] Odds ratios larger than one indicate a positive correlation between an explanatory variable and the respective outcome, while odds ratios less than one indicate negative relationships.

We start with omitting the interacted variables shown in equation (1). Column 1 of Table 1 shows what determines peace over terror, while column 2 compares insurgencies with terror. The respective columns of Table 2 focus on terror and insurgencies versus peace, respectively. As can be seen, ethno-political groups are more likely to engage in insurgencies the higher the value of the oil resources that were extracted from their territory in the previous year, both with respect to becoming terrorists (column 2 of Table 1), and to pursuing their aims with peaceful means (column 2 of Table 2). The odds ratio in column 2 of Table 1 is significant at the five percent level and indicates that the odds of a group being involved in an insurgency rather than in terrorist activities increase by a factor of 1.19 with an increase in the logged value of oil production in the group's area by one (its mean being 7.55). Similarly, and shown in column 2 of Table 2, groups are more likely to engage in

[21] See http://www.ats.ucla.edu/stat/stata/output/stata_mlogit_output.htm (accessed April 23, 2014).

insurgencies compared to peaceful means, by a factor of 1.25. There is no evidence that resource abundance in the group's territory affects its choice of peace versus terrorism however (this can be seen from columns 1 of both Table 1 and 2). These results point to the absence of important grievances arising from the extraction of oil among the countries and years in our sample. The result is thus in line with the observation that the resource curse is mainly related to the motives of greed and opportunity, rather than the importance of grievances.

Focusing on national oil production, the picture is different. Here, the results show terrorism to be more likely relative to peace and insurgencies (Table 1), while there is no significant difference on the choice of peace versus insurgencies (column 2 of Table 2). This might reflect the effects of perceived grievances arising from inequalities due to the availability of oil, spilling over to the country as a whole. It might also be reflective of a country's attractiveness towards terrorists as a consequence of their geopolitical importance, as argued in Bravo and Dias (2006). The result however might as well be the effect of omitted variables that are affected by the abundance of resources in a state, like the effect of oil on reduced state capacity, rather than being a direct causal effect of oil on terror.

Regarding the control variables of the models, the results of Table 1 show that peace and insurgencies are more likely in countries with larger populations, at the one and ten percent level of significance, respectively. They become less likely with larger GDP per capita, at the one and five percent level of significance. At the ten percent level, insurgencies are preferred over terror in less democratic countries (recall that higher values on the democracy indicator imply less freedom) and, at the five percent level, with greater ethno-linguistic fractionalization. Groups that aim at eliminating economic or cultural discrimination are more likely to turn to insurgencies compared to becoming terrorists, while groups supported by a foreign state, groups the state uses violence against, or groups the state negotiated with are significantly less likely to be peaceful, at least at the ten percent level. Groups with regional autonomy are more likely to be peaceful and to be involved in insurgencies (compared to terrorism, at the five and ten percent level).

Column 1 of Table 2 contains the same information as Column 1 of Table 1 (Peace vs. Terror compared to Terror vs. Peace), while column 2 allows us to compare what determines whether a group is involved in insurgencies as compared to being peaceful. The results show that insurgencies are more likely in countries with smaller populations, and larger ethno-linguistic fractionalization (at the five percent level). They are more likely for groups that aim to eliminate political or economic discrimination or aim to establish an Islamic state, as well as for groups that are supported by a foreign state or which the state uses violence against.

We next turn to testing whether the effect of oil extraction on the 'choice of weapons' depends on per capita GDP.[22] The results are reported in columns 3 and 4 of Tables 1 and 2. They show that there is no significant effect of per capita GDP on how resource extraction affects a group's choice of peace over terrorism (columns 1 of Tables 1 and 2). However, the effect of oil on insurgencies becomes stronger with rising per capita GDP compared to the choice of becoming terrorist (Table 1) and over choosing peaceful means (Table 2). The coefficient of the interaction variable exceeds one and is significant at the ten percent level. As is well known, interpreting the significance of interaction effects in nonlinear models such as ours might not be straightforward. However, these difficulties do not pertain to incidence rate ratios, which rely on a multiplicative rather than an additive scale (Buis 2010). In this case, the interaction reflects the ratio of the odds ratios of the two interacted variables (which do not depend on the values of the other variables in the model) and the significance of the incidence ratio is correctly calculated.

In Tables 3 and 4 we test variants of our basic model, adding interactions of oil extraction with binary indicators showing whether or not the ethnic group represented by an organization shares political power with others or experiences political discrimination. A group is considered to be increasingly politically discriminated against if a group is not only politically under-represented but if, additionally, there are either no measures taken to remedy the situation or even measures introduced that further restrict the group's political participation relative to other groups. We also interact oil extraction with our indicator of democracy. As can be seen from columns 1 and 2, groups that share power are less likely to engage in insurgencies, both compared to becoming terrorists (at the ten percent level, see Table 3) and to choosing peaceful means (at the one percent level, see Table 4). This result is in line with our hypothesis that groups that participate in power are less likely to choose violent over peaceful means. It is in line with Hunziker and Cederman's (2012) observation that the risk of civil war as a consequence of resource abundance is linked only to those groups that are excluded from central power.[23] Power sharing has no significant effect on the choice between terrorism versus peace however.[24] What is more, when we interact oil production with the index of democracy (in columns 3 and 4) we do not find significant differences on groups' choices. As shown in columns 5 and 6, we also find no effect of political discrimination on a group's choice to become violent (while we find the risk of insurgencies to be significantly higher compared to terrorism, at the five percent level, as can be seen in column 6 of Table 3). Arguably, in terms of a group's choice of strategy, its participation in power has a greater impact than the level of democracy in the country

[22] We also interacted oil production with the indicator showing that organizations pursue an economic goal but found no significant difference of the indicator on the organizations' choice between terror and insurgencies.

[23] Hunziker and Cederman (2012) interpret this result to indicate the importance of grievances rather than greed. However, ethnic groups participating in power might also be able to extract a larger share of the resources in their territory, reducing the chances of greed-based insurgencies.

[24] We also interacted oil with regional autonomy. Our models do not converge however.

overall. When an organization's political participation is controlled for, discrimination has no additional explanatory power.

Columns 7 and 8 interact oil production with economic discrimination, coded in accordance with political discrimination above. This interaction tests our hypothesis that oil-abundance is particularly harmful when the distribution of its costs and benefits is perceived to be unfair. However, we find the impact of oil production to be independent of economic discrimination against a group.

Appendix C tests the robustness of our main results to using PRIO's binary indicator of the existence of oil fields rather than oil extraction and focusing on the organizations' choice of using peaceful means or engaging in insurgencies rather than choosing to become terrorists. As before, the availability of oil in its territory increases the chances that an organization will turn to insurgencies (column 2), in particular in richer countries (column 4), but less so when it has a share in power (column 6). Rather than being affected by economic discrimination, we now find that organizations are more likely to be involved in larger scale violence as a consequence of oil extraction when being politically discriminated against. In summary, our main results are robust to using the alternative measure of resource abundance.

5. Conclusion

In this paper we investigated what determines ethno-political organizations' choice between pursuing their goals with peaceful means or violent action, distinguishing between smaller scale terrorist activities and larger scale insurgencies. According to our theory, the extraction of natural resources exerts externalities on ethnic groups populating the regions where resources are extracted, leading to grievances and, consequently, to an increased risk of both terrorism and rebellion. We argue that the motive of greed is largely absent from the choice to become a terrorist, while potentially predominating the choice to take up arms for larger scale insurgencies. Indeed, our results show that insurgencies are more likely with greater resource extraction, both with respect to peace and with respect to terrorism. The choice to take up arms for terrorist activities is not affected by resource availability however. This implies that greed dominates grievance as a motive for ethno-political organizations to turn violent as a consequence of oil production in the regions of the ethnicities that they represent (in line with the country-level analyses in Collier and Hoeffler 2004 and Collier et al. 2009).

Our theory and models introduced a number of interaction effects. Most importantly, based on the observation that terrorism is generally considered to be the "weapon of the weak," we hypothesized that terrorism is chosen over insurgencies where GDP per capita is higher. However,

we found no support for this hypothesis. On the contrary, our results show that the effect of oil production on insurgencies increases with per capita GDP, both with respect to terrorism and with respect to peace. In line with our hypothesis, we find the effect of oil on insurgencies to decrease when groups exercise some degree of power over their region. We do not find the impact of oil production on the choice of peaceful over violent means to be affected by economic and political discrimination however.

We conclude that the resource curse does not extend to the realm of terrorism within the groups and countries in our sample (admitting that the results might be different for other regions). We also conclude that mainly greed, rather than grievances determine organizations' choice to become rebellious.

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Table 1: Determinants of Peace and Insurgencies, Multinomial Logit, 1980-2004

	(1) Peace	(2) Insurgency	(3) Peace	(4) Insurgency
Log(group share oil production) (lag)	0.955	1.190**	1.235	0.647
	(0.578)	(0.040)	(0.623)	(0.244)
Interaction term oil and GDP			0.967	1.076*
			(0.518)	(0.099)
Log(national oil production) (lag)	0.768**	0.785**	0.777**	0.780***
	(0.012)	(0.010)	(0.017)	(0.009)
Log(GDP p.c.) (lag)	0.287***	0.333**	0.287*	0.194***
	(0.009)	(0.017)	(0.051)	(0.007)
Log(population)	17.494***	3.625*	19.854***	3.688*
	(0.000)	(0.071)	(0.000)	(0.077)
Freedom House indicators	1.600	1.703*	1.522	1.478
	(0.159)	(0.095)	(0.245)	(0.258)
Ethno-linguistic fractionalization	0.441	269.529**	0.547	419.371***
	(0.762)	(0.013)	(0.830)	(0.009)
Goal: eliminate political discrimination	0.850	10.918***	0.862	9.808***
	(0.878)	(0.004)	(0.893)	(0.007)
Goal: eliminate economic discrimination	0.255	6.517**	0.277	5.691*
	(0.184)	(0.030)	(0.240)	(0.053)
Goal: eliminate cultural discrimination	1.618	0.319	2.013	0.352
	(0.628)	(0.177)	(0.498)	(0.229)
Goal: autonomy, independence	6.974	2.776	7.348	2.227
	(0.111)	(0.313)	(0.117)	(0.434)
Goal: establish Islamic state	0.181	2.778	0.163	2.427
	(0.215)	(0.344)	(0.204)	(0.422)
Group supported by foreign state	0.305**	1.558	0.305**	1.471
	(0.024)	(0.361)	(0.025)	(0.434)
State negotiated with organization (lag)	0.227*	0.274	0.184**	0.251*
	(0.057)	(0.107)	(0.034)	(0.091)
State uses violence against group	0.234**	1.786	0.227**	2.152
	(0.018)	(0.270)	(0.018)	(0.163)
Ethnic group has regional autonomy	7.773**	6.187*	8.609**	7.109*
	(0.046)	(0.087)	(0.045)	(0.079)
Ethnic group shares political power with others	3.379	1.309	2.692	1.442
	(0.168)	(0.715)	(0.270)	(0.620)
Number of groups	88		88	
Number of observations	2859		2859	
log-likelihood	-384.242		-382.190	

Notes: Odds ratios shown. p-values in parentheses: *, **, *** significant at 10, 5, 1%.

Table 2: Determinants of Terror and Insurgencies, Multinomial Logit, 1980-2004

	(1) Terror	(2) Insurgency	(3) Terror	(4) Insurgency
Log(group share oil production) (lag)	1.048	1.247**	0.812	0.525
	(0.568)	(0.043)	(0.628)	(0.165)
Interaction term oil and GDP			1.034	1.112*
			(0.524)	(0.056)
Log(national oil production) (lag)	1.297**	1.017	1.285**	1.003
	(0.014)	(0.884)	(0.018)	(0.982)
Log(GDP p.c.) (lag)	3.488***	1.161	3.480*	0.673
	(0.009)	(0.768)	(0.052)	(0.487)
Log(population)	0.059***	0.216**	0.051***	0.190**
	(0.000)	(0.025)	(0.000)	(0.020)
Democracy	0.626	1.066	0.659	0.973
	(0.161)	(0.839)	(0.248)	(0.932)
Ethno-linguistic fractionalization	2.280	616.332**	1.781	739.690**
	(0.758)	(0.033)	(0.837)	(0.032)
Goal: eliminate political discrimination	1.176	12.819**	1.162	11.401*
	(0.878)	(0.045)	(0.894)	(0.078)
Goal: eliminate economic discrimination	4.016	26.515**	3.645	20.866**
	(0.187)	(0.013)	(0.246)	(0.033)
Goal: eliminate cultural discrimination	0.620	0.199	0.497	0.176
	(0.630)	(0.157)	(0.501)	(0.156)
Goal: autonomy, independence	0.143	0.393	0.136	0.301
	(0.113)	(0.518)	(0.124)	(0.440)
Goal: Islamic state	5.544	15.282*	6.162	14.907
	(0.219)	(0.097)	(0.213)	(0.122)
Group supported by foreign state	3.302**	5.172***	3.290**	4.850***
	(0.023)	(0.002)	(0.025)	(0.004)
State negotiated with organization (lag)	4.390*	1.203	5.410**	1.354
	(0.058)	(0.798)	(0.034)	(0.685)
State uses violence against group	4.284**	7.665***	4.413**	9.504***
	(0.018)	(0.001)	(0.018)	(0.000)
Ethnic group has regional autonomy	0.128**	0.798	0.116**	0.832
	(0.048)	(0.825)	(0.046)	(0.871)
Ethnic group shares political power with others	0.296	0.390	0.373	0.541
	(0.184)	(0.388)	(0.281)	(0.580)
Number of groups	88		88	
Number of observations	2859		2859	
log-likelihood	-384.200		-382.191	

Notes: Odds ratios shown. p-values in parentheses: *, **, *** significant at 10, 5, 1%.

Table 3: Determinants of Peace and Insurgencies, Multinomial Logit, 1980-2004, interaction terms

	(1) Peace	(2) Insurgency	(3) Peace	(4) Insurgency	(5) Peace	(6) Insurgency	(7) Peace	(8) Insurgency
Log(group share oil production) (lag)	0.921	1.227**	1.436	1.459	0.971	1.181*	1.008	1.261**
	(0.326)	(0.023)	(0.282)	(0.135)	(0.751)	(0.094)	(0.934)	(0.035)
Interaction term oil and power sharing	1.135	0.888*						
	(0.123)	(0.075)						
Interaction term oil and democracy			0.938	0.968				
			(0.200)	(0.391)				
Interaction term oil and political discrimination					1.010	1.041**		
					(0.663)	(0.050)		
Interaction term oil and economic discrimination							0.994	1.045
							(0.844)	(0.165)
Log(national oil production) (lag)	0.798**	0.797**	0.748***	0.762***	0.689***	0.675***	0.709***	0.677***
	(0.033)	(0.018)	(0.008)	(0.005)	(0.003)	(0.001)	(0.004)	(0.002)
Log(GDP p.c.) (lag)	0.335**	0.294***	0.323**	0.343**	0.390*	0.269**	0.434	0.384*
	(0.029)	(0.007)	(0.020)	(0.019)	(0.081)	(0.015)	(0.134)	(0.100)
Log(population)	12.991***	4.589**	17.483***	4.295*	32.199***	9.535**	25.295***	4.585
	(0.001)	(0.030)	(0.001)	(0.055)	(0.001)	(0.021)	(0.001)	(0.103)
Ethno-linguistic fractionalization	5.456	344.208***	0.143	82.398*	0.873	139.198*	2.313	621.778**
	(0.540)	(0.009)	(0.488)	(0.066)	(0.963)	(0.066)	(0.786)	(0.032)
Ethnic group shares political power with others	0.212	6.471**	2.069	1.424	0.674	2.189	0.622	0.387
	(0.228)	(0.021)	(0.506)	(0.653)	(0.739)	(0.493)	(0.728)	(0.490)
Democracy	1.491	1.296	2.101*	2.066*	1.771	2.079**	1.557	1.545
	(0.247)	(0.437)	(0.055)	(0.053)	(0.121)	(0.048)	(0.268)	(0.285)
Economic Discrimination							0.835	0.356**
							(0.692)	(0.018)
Political Discrimination					0.659	0.654		
					(0.275)	(0.241)		
Number of groups	88		88		86		86	
Number of observations	2859		2859		2643		2634	
log-likelihood	-378.700		-382,770		-343.772		-342.065	

Notes: Odds ratios shown. Additional group characteristics (as in Tables 1 and 2) are included in all regressions but not shown. p-values in parentheses: *, **, *** significant at 10, 5, 1%.

Table 4: Determinants of Terror and Insurgencies, Multinomial Logit, 1980-2004, interaction terms

	(1) Terror	(2) Insurgency	(3) Terror	(4) Insurgency	(5) Terror	(6) Insurgency	(7) Terror	(8) Insurgency
Log(group share oil production) (lag)	1.086	1.333***	0.687	0.999	1.031	1.218*	0.992	1.251*
	(0.321)	(0.010)	(0.255)	(0.998)	(0.735)	(0.076)	(0.931)	(0.080)
Interaction term oil and power sharing	0.881	0.782***						
	(0.125)	(0.001)						
Interaction term oil and democracy			1.068	1.034				
			(0.174)	(0.517)				
Interaction term oil and political discrimination					0.990	1.031		
					(0.664)	(0.137)		
Interaction term oil and economic discrimination							1.006	1.052
							(0.854)	(0.166)
Log(national oil production) (lag)	1.252**	0.998	1.331**	1.012	1.445***	0.975	1.411***	0.954
	(0.033)	(0.986)	(0.013)	(0.924)	(0.003)	(0.832)	(0.004)	(0.717)
Log(GDP p.c.) (lag)	2.982**	0.878	3.067**	1.055	2.557*	0.688	2.312	0.888
	(0.029)	(0.793)	(0.020)	(0.915)	(0.081)	(0.480)	(0.134)	(0.833)
Log(population)	0.077***	0.357	0.059***	0.257*	0.032***	0.305*	0.040***	0.182**
	(0.001)	(0.117)	(0.001)	(0.088)	(0.001)	(0.086)	(0.001)	(0.025)
Ethno-linguistic fractionalization	0.184	63.227	7.407	603.838**	1.136	158.128*	0.434	266.414*
	(0.542)	(0.138)	(0.466)	(0.020)	(0.965)	(0.077)	(0.792)	(0.077)
Ethnic group shares political power with others	4.742	30.671**	0.507	0.746	1.469	3.231	1.624	0.631
	(0.229)	(0.015)	(0.536)	(0.829)	(0.746)	(0.298)	(0.722)	(0.722)
Democracy	0.671	0.869	0.473*	0.976	0.567	1.178	0.641	0.992
	(0.248)	(0.647)	(0.058)	(0.943)	(0.122)	(0.592)	(0.270)	(0.981)
Economic Discrimination							1.197	0.426*
							(0.694)	(0.074)
Political Discrimination					1.519	0.996		
					(0.274)	(0.990)		
Number of groups	88		88		86		86	
Number of observations	2859		2859		2634		2634	
log-likelihood	-378.717		-382.624		-343.717		-343.117	

Notes: Odds ratios shown. Additional group characteristics (as in Tables 1 and 2) are included in all regressions but not shown. p-values in parentheses: *, **, *** significant at 10, 5, 1%.

Appendix

Appendix A: Descriptive Statistics and Sources

	Mean	SD	Min	Max	N	Source
"Weapon of Choice"	0.58	0.87	0	2	953	MAROB (Asal et al. 2008)
Regional Oil Production (Million US$)	2664	8197	0	76699	953	Horn (2010)
National Oil Production (Million US$)	12142	22467	0	76699	953	Horn (2010), Ross (2013)
Oil Indicator	0.43	0.49	0	1	953	PRIO (Päivi et al. 2007)
GDP p.c.	8910	5934	2162	23173	953	Penn World tables (Feenstra et al. 2013), World Bank (2014)
Population	16973	18091	2181	69342	953	World Bank (2014)
Democracy	4.94	1.65	1.5	7	953	Freedom House
Ethno-linguistic Fractionalization	0.54	0.21	0.26	0.82	953	Yeoh (2012)
Goal: eliminate political discrimination	0.51	0.50	0	1	953	MAROB (Asal et al. 2008)
Goal: eliminate economic discrimination	0.23	0.42	0	1	953	MAROB (Asal et al. 2008)
Goal: eliminate cultural discrimination	0.41	0.49	0	1	953	MAROB (Asal et al. 2008)
Goal: autonomy, independence	0.29	0.45	0	1	953	MAROB (Asal et al. 2008)
Goal: Islamic state	0.10	0.31	0	1	953	MAROB (Asal et al. 2008)
Group supported by foreign state	0.30	0.46	0	1	953	MAROB (Asal et al. 2008)
State uses violence against group	0.12	0.32	0	1	953	MAROB (Asal et al. 2008)
Ethnic group has regional autonomy	0.13	0.34	0	1	953	Ethnic Power Relations (Wimmer et al. 2009)
Ethnic group shares political power	0.20	0.40	0	1	953	Ethnic Power Relations (Wimmer et al. 2009)
State negotiated with group	0.06	0.24	0	1	953	MAROB (Asal et al. 2008)
Political Discrimination	2.41	1.68	0	4	878	Minorities at Risk Project (2009)
Economic Discrimination	2.14	1.55	0	4	878	Minorities at Risk Project (2009)

Appendix B: Definition of Variables

	Definition
"Weapon of Choice"	0 = no violent behavior; 1 = terrorism, i.e., attacks on civilians incl. non-security state personnel, no control of territory; 2 = insurgency, i.e., attacks targeting security personnel and state authorities, local rebellion, guerilla activity, civil war, control of territory.
Regional Oil Production (Million US$)	Value of the share of national hydrocarbon production in a year, located on an ethnic group's territory, in constant 2009 million US$ (for fields containing at least 500 million barrels oil or gas equivalents).
National Oil Production (Million US$)	Value of the national hydrocarbon production in a year in million constant 2009 US$ (for fields containing at least 500 million barrels oil or gas equivalents).
Oil Indicator	Indicates that hydrocarbon reserves are located in an ethnic group's territory.
GDP p.c.	GDP per capita, PPP, in constant 2005 US$.
Population	Measured in 1000s.
Democracy	Average of civil liberties and political rights indices; from 1 = free to 7 = not free; civil liberties: freedom of expression and belief, associational and organizational rights, rule of law, and personal autonomy and individual rights; political rights: electoral process, political pluralism and participation, and functioning of government.
Ethno-linguistic Fractionalization	Probability that a randomly selected pair of individuals will belong to different groups; from 0 = complete homogeneity to 1 = complete heterogeneity.

Appendix B (continued)

	Definition
Goal: remedial policies	Major organizational goals focused on eliminating discrimination and on creating or increasing remedial policies.
Goal: autonomy, independence	Major organizational goals focused on creating or strengthening autonomous status for group or on creating a separate state for the group or revanchist change in border of state.
Goal: eliminate economic discrimination	Group expresses economic grievances focused on elimination of discrimination or on creating or strengthening economic remedial policies.
Goal: eliminate cultural discrimination	Group expresses cultural grievances focused on elimination of discrimination or on strengthening economic remedial policies (i.e., establishing or increasing state funding for cultural protection and/or promotion).
Goal: Islamic state	Has the organsiation expressed the goal of creating an Islamic state/ an islamic government or of introducing Islamic law?
Group supported by foreign state	Has the organsiation received support from a foreign state in the year being coded - i.e., financial, humanitarian, political, or military support?
State uses violence against group	Does the state use periodic or consistent lethal violence against the organization?
Ethnic group has regional autonomy	Elite members of the group have no central power but have some influence at the subnational level (i.e., the provincial or district level, depending on the vertical organization of the state).
Ethnic group shares political power	Any arrangement that divides executive power among leaders who claim to represent particular ethnic groups (formal or informal arrangements).
State negotiated with group	The state negotiated with the group in the year and the state might even have made concessions.
Political Discrimination	0 = no discrimination, 1=neglect but remedial policies; 2=neglect, no remedial policies; 3=social exclusion, neutral policies; 4 = exclusion/ repressive policy.
Economic Discrimination	0 = no discrimination, 1=neglect but remedial policies; 2=neglect, no remedial policies; 3=social exclusion, neutral policies; 4 = exclusion/ repressive policy.

Appendix C: Determinants of Peace and Insurgencies, Multinomial Logit, 1980-2004, alternative oil measure

	(1) Peace	(2) Insurgency	(3) Peace	(4) Insurgency	(5) Peace	(6) Insurgency	(7) Peace	(8) Insurgency	(9) Peace	(10) Insurgency	(11) Peace	(12) Insurgency
Oil indicator	5.327	12.519**	9188.334	0.000	3.248	20.850**	5498.157*	1051.272	10.552	9.967	4.122	5.699
	(0.218)	(0.047)	(0.340)	(0.142)	(0.344)	(0.014)	(0.077)	(0.116)	(0.284)	(0.320)	(0.424)	(0.367)
Interaction term oil and GDP			0.420	6.654*								
			(0.436)	(0.083)								
Interaction term oil and power sharing					4.522	0.056*						
					(0.375)	(0.054)						
Interaction term oil and democracy							0.291	0.464				
							(0.114)	(0.292)				
Interaction term oil and economic discrimination									1.193	2.132		
									(0.810)	(0.340)		
Interaction term oil and political discrimination											1.555	2.513*
											(0.354)	(0.050)
Log(national oil production) (lag)	0.699***	0.871*	0.674***	0.872	0.712***	0.913	0.714***	0.855*	0.644***	0.815*	0.608***	0.768***
	(0.000)	(0.062)	(0.001)	(0.122)	(0.000)	(0.227)	(0.001)	(0.060)	(0.000)	(0.057)	(0.000)	(0.008)
Log(GDP p.c.) (lag)	0.381**	0.530	0.421	0.282**	0.401*	0.485	0.471	0.554	0.502	0.499	0.490	0.432
	(0.047)	(0.215)	(0.183)	(0.048)	(0.066)	(0.157)	(0.135)	(0.255)	(0.224)	(0.247)	(0.197)	(0.144)
Log(population)	19.918***	3.227	23.591***	3.539	19.109***	3.248	17.869***	4.512*	31.783***	4.068	56.874***	9.891**
	(0.001)	(0.128)	(0.007)	(0.197)	(0.000)	(0.114)	(0.002)	(0.068)	(0.002)	(0.172)	(0.000)	(0.029)
Democracy	1.469	1.501	1.562	1.299	1.297	1.121	1.975*	1.654	1.449	1.458	1.597	1.724
	(0.277)	(0.228)	(0.280)	(0.474)	(0.488)	(0.758)	(0.093)	(0.209)	(0.410)	(0.397)	(0.253)	(0.185)
Ethno-linguistic fractionalization	1.475	1555.735***	0.856	3118.047**	10.279	2512.501**	0.376	836.595**	4.537	1998.747**	2.746	1508.239**
	(0.896)	(0.003)	(0.969)	(0.006)	(0.441)	(0.003)	(0.750)	(0.012)	(0.684)	(0.028)	(0.756)	(0.017)
Ethnic group shares political power with others	2.525	1.208	2.064	1.329	0.510	5.049*	2.073	1.236	0.880	0.678	0.608	2.171
	(0.230)	(0.787)	(0.489)	(0.738)	(0.569)	(0.057)	(0.361)	(0.765)	(0.927)	(0.794)	(0.659)	(0.499)
Economic discrimination									0.846	0.505		
									(0.726)	(0.145)		
Political discrimination											0.600	0.759
											(0.135)	(0.425)
Number of groups	88		88		88		88		86		86	
Number of observations	2859		2859		2859		2859		2634		2634	
log likelihood	-384.538		-381.602		-381.200		-382.974		-346.001		-344.212	

Notes: Odds ratios shown. Additional group characteristics (as in Tables 1 and 2) are included in all regressions but not shown. p-values in parentheses: *, **, *** significant at 10, 5, 1%.