

Violent Dissent and Rebellion in Africa^{*}

SABINE C. CAREY

School of Politics & International Relations
University of Nottingham
University Park
Nottingham
NG7 2RD
UK
sabine.carey@nottingham.ac.uk

Forthcoming in *Journal of Peace Research*, January 2007

^{*} I thank Michael P. Colaresi and Håvard Hegre for their helpful comments. The support of the Leverhulme Trust is gratefully acknowledged. The usual caveats apply. The data used in this article can be found at <http://www.prio.no/jpr/datasets>. Comments and questions can be sent to sabine.carey@nottingham.ac.uk.

Violent Dissent and Rebellion in Africa

SABINE C. CAREY

School of Politics & International Relations, University of Nottingham

This article analyzes how the selection process for the executive affects the risk of rebellion and insurgencies in sub-Saharan Africa between 1971 and 1995. Four executive recruitment processes are distinguished, which are characteristic for the African context: (1) a process without elections, (2) single candidate elections, (3) single party, multiple candidate elections, and (4) multiparty executive elections. The results suggest that single candidate elections and multiparty elections substantially reduce the risk of insurgencies compared to systems without any kind of executive elections. They further show that during times of political instability the risk of large-scale violent dissent increases substantially. The article supports findings of the civil war literature that higher levels of income are associated with a lower risk of intrastate violence, while oil-exporting countries are at a higher risk of rebellion. In short, this article further strengthens the need to use more specific measures of elements of political regimes, which also take into account regional particularities, in order to paint a more informative picture of how political structures influence the risk of internal violence.

Introduction

There has been growing interest within the academic community to explain the occurrence, duration, and termination of civil war in recent years (e.g., Buhaug & Gates, 2002; Collier & Hoeffler, 2002, 2004; DeRouen Jr & Sobek, 2004; Fearon, 2004; Fearon & Laitin, 2003). Conflicts in Africa have received particular attention. In the media Africa is often labeled ‘the lost continent’, implicating that little can be done to improve the situation in this conflict-ridden part of the world due to its extreme poverty, corruption, and ethnic violence. Pictures from conflicts in places such as Darfur strengthen the image of Africa as a continent that is lost to chaos and immense human suffering. Scholars have been trying to understand how much ethnicity, poverty, and lack of good governance are to blame for this dire situation in many African countries (e.g., Ali & Matthews, 1999; Buhaug & Rød, 2005; Collier & Hoeffler, 2002; Elbadawi & Sambanis, 2000; Henderson, 2000).

While the majority of research analyzes the dynamics and characteristics of intra-state violence in the general form of civil war, some studies focus specifically on one particular actor, either the state or the rebels (Gates, 2002). Herbst (2004) analyzes how national militaries in Africa perform during a civil war. Other studies focus on the strategies and resources rebels use to recruit soldiers and to organize themselves (Gates, 2002; Herbst, 2000a; Kasfir, 2005). The present study contributes to this research that tries to understand what factors motivate rebels and facilitate their violent activities. It analyzes how political institutions influence the outbreak of violent, large-scale internal dissent in sub-Saharan African countries between 1971 and 1995. It focuses on how different types of executive selection processes and changes to these processes affect the risk of insurgencies. Analyzing the impact of regime type in the form of the general

category of democracy on the risk of civil war has previously produced inconclusive results (Collier & Hoeffler, 2004; Fearon & Laitin, 2003; Reynal-Querol, 2002). This study concentrates on the recruitment process for the most powerful position in the country, accounting for special characteristics of this process that are commonly found on the African continent.

In the following section, I present the argument for why violent dissent is an important issue to analyze and how it is related to civil war. Then, I develop a model of how political institutions influence the outbreak of such extreme forms of dissent. I outline the operationalization of the main variables and give a summary of what factors have been linked to the outbreak of civil war in general. I present the results from the empirical analysis and conclude with suggestions on what policy implications we might draw from this study.

Why Large-Scale Violent Dissent

This study focuses on violent, large-scale internal dissent. It is defined as protest activity that is violent in nature, that is carried out by an organized group, and that is intended to weaken or overthrow the government. It includes activities usually referred to as rebellion, guerrilla warfare, and insurgencies.¹ It is related to civil war and other internal conflict, since such forms of violent dissent often take place during, or might lead to, what is classified as a civil war or internal conflict. Although studies often refer to rebellion when analyzing civil war, rebellion or violent, large-scale internal dissent are narrower in their conception than civil war or intrastate conflict since they focus on the non-state actor without requiring a certain type of behavior from the state. Studies of conflict in general or of civil war in particular concentrate on the total violence present

in a country, where both state and non-state actors participate in the actions. This article focuses on rebellion, or large-scale violent dissent, which means that the violent behavior of only one actor, i.e. the rebels, is the center of the analysis. An additional difference between large-scale violent dissent and civil war is that definitions of civil war usually require that a certain threshold of deaths has been crossed (e.g., Gleditsch et al, 2002; Sambanis, 2004; Sarkees, 2000).²

By focusing on one particular actor we can investigate factors that affect such violent activities against the state, analyzing motivations and circumstances that lead to the outbreak of rebellion. Organized and violent organizations, such as guerrilla and rebel groups, play an important role in determining the overall conflict potential of a country. As these types of groups can rely on a dissident network and because they pursue violent tactics, they pose a substantial threat to the stability of a country and to the position of its government. Large-scale violent dissent can be assumed to have a significant influence on the general conflict propensity of a country and to facilitate the escalation of conflict by triggering violent responses from the state, an argument supported by previous research (Carey, 2004; Davenport, 1995).

The level of violence can have devastating effects on the general population by getting caught in the struggle of the rebel groups. The violent tactics of rebels against ordinary civilians are a widespread phenomenon, such as the violent recruitment or abduction of child soldiers in the conflicts in Angola, Liberia, Sierra Leone, the Sudan, and Congo-Kinshasa (Mkandawire, 2002). Insurgencies carry extremely high humanitarian costs for the people living in the affected countries, but also for those who live in neighboring areas due to the large flows of refugees that such attacks usually trigger and the instability that such intense forms of dissent bring with them to

surrounding areas. Therefore, it is important to develop a better understanding of the factors that are likely to increase the risk of such violent and large-scale internal dissent.

Political Institutions and Large-Scale Violent Dissent

Previous work on civil war in general and on rebellion in particular has emphasized the importance of political regimes and institutions. Semi-democracies, or mixed political regimes, as well as periods of political regime changes have been widely associated with an increased risk of violence and civil war. Henderson and Singer, for example, analyze the impact of political, economic, and cultural factors on the onset of civil war and find that 'semi-democracy has the greatest impact on the probability of post-colonial civil war' (2000: 295). This is because in semi-democracies the level of threat and fear of repression is not sufficient to prevent violent dissent and rebellion, while at the same time institutions and mechanism that are necessary to solve conflicts peacefully have not been fully established (see also Ellingsen & Gleditsch, 1997; Gleditsch 1995; Hegre et al, 2001; Henderson & Singer, 2000). Hegre et al. (2001) find strong support for the argument that semi-democracies are particularly prone to civil war, even when those regimes are consolidated. Sambanis (2004) further confirms the finding that anocracies are at a higher risk of civil war, using various civil war data. Elbadawi and Sambanis (2000) conclude that the higher incidence of civil war in Africa compared to other continents is due to failed political institutions, poverty, and economic dependence on natural resources and cannot be blamed on ethnic diversity.

Clearly, political institutions play a predominant role for understanding civil war. They shape the interaction between state and non-state actors; they influence the opportunity costs of dissent, both in violent and non-violent forms. With respect to

insurgencies, the strength of the state and the legitimacy of its main institutions are likely to influence whether or not rebels fight against the government. Instead of analyzing the impact of regime type on guerrilla warfare with broad categories such as democracy, semi-democracy, and autocracy, I concentrate on one particular aspect: the *executive selection process*. This has three benefits. First, it allows me to draw more detailed conclusions and recommendations than analyzing the rather complex concept of democracy. Second, the executive in African countries is generally the most powerful political position in the country. The process by which the executive is selected characterizes the type of legitimacy the leadership is based upon and it indicates the level of competitiveness of the elections. Focusing on the executive selection process, therefore, tackles a particularly influential element of the political system. Finally, since by definition semi-democracies combine both democratic and autocratic elements, it is often unclear to what extent regimes are mixed and how this is reflected in their political institutions. By concentrating on the executive selection process, I can single out its specific degree of competitiveness and inclusiveness, while taking into account characteristics that are particularly common within the African context.³

Based on the Africa Research Program,⁴ I distinguish between four categories of the executive selection process: (1) a process without elections for the executive, (2) cases in which the executive was elected but where only one candidate stood in the election, (3) a process where multiple candidates competed in the executive election within a one-party system, and (4) multiparty elections, where multiple candidates from different parties competed for the post. These four categories reflect the specific nature of African executives.

In line with research on semi-democracies and civil war outlined above, I expect that the most restricted and the most open processes of selecting the executive are associated with a lower risk of the outbreak of insurgencies. Leaders who rule without any form of institutional elections are likely to be the ones who keep the tightest grip on their country and as such reduce the ability to stage a rebellion. Similarly, countries that are ruled by an executive who won elections against candidates from other political parties are expected to experience fewer insurgencies since the election process for the most powerful political position allowed for competition between different groups. Potential rebels might have had the opportunity to put their own candidate in the field in order to challenge the incumbent, therefore reducing the motivation for and potential benefits of a violent attack. Countries where the executive was elected without competition from a challenger might pose the most dangerous situation. The leader did not feel powerful enough to forgo elections altogether but nevertheless has enough control over the political process to prevent any challenger from running against him. Not having the opportunity to field their own candidates, organized groups might feel disenfranchised from political power. Under such conditions, the benefits outweigh the costs for people to initiate an insurgency. As a result, they are likely to turn towards guerrilla tactics and violent dissent. These arguments are summarized below:

H₁: Political systems with a non-elected executive have a lower probability of outbreak of large-scale violent dissent than systems with executive elections.

H₂: Political systems with multiparty executive elections have a lower probability of outbreak of large-scale violent dissent than systems with no executive elections.

H₃: Political systems with single candidate executive elections and one-party executive elections have a higher probability of outbreak of large-scale violent dissent than systems with no executive elections.

Recent research has shown that times during which political institutions undergo change are very unstable and often coincide with high levels of violence and unrest (e.g. Bratton and van de Walle, 1997; Hegre et al., 2001; Tarrow, 1994; Zanger, 2000). Similarly, changes in the selection process for the most important post in the country are expected to increase instability, which in turn heightens the risk of large-scale violent dissent. *Changes in the executive selection process* influence the political opportunity structure of a country as it opens up, or limits, the possibilities for actors that have previously been outside the realm of state power to influence how this crucial post is filled. The effect of change in the executive selection on rebellion is likely to depend on the nature of the change. Analyzing state repression, previous studies found that changes towards more authoritarian structures increase repression, whereas changes towards democracy decrease it (Davenport, 1999; Zanger, 2000). For insurgencies, allowing more competition in the recruitment process of the executive is likely to change the costs and benefits attached to staging a guerrilla attack. Opening up the process can be perceived as an opportunity to influence the political process by non-violent and therefore less costly means.

At the same time, if drastic changes are being made to the executive selection process, the instability and insecurity created by such substantial changes are likely to outweigh the benefits of more competition that might be gained by moving towards a more democratic recruitment process. The drastically different nature of the executive

selection process is likely to increase insecurity on the sides of both potential rebels and the government. During drastic changes of political institutions, the government is likely to be more vulnerable. In this weakened position it poses an easier target for insurgents than a government that is set within well-established norms and procedures, which decreases the perceived costs of initiating large-scale violent dissent. Drastic changes to the selection process for one of the most powerful political institution in the country not only open up the political opportunity structure (Tarrow, 1994), but also weaken the state, and this has previously been linked to a higher risk of rebellion (Herbst, 2000a,b). Also, substantial transformations of the political system in general weaken the state. As this instability has repeatedly been shown to increase the risk of civil war, I test for the impact of *political instability* in general, not just with respect to the executive selection process, on the onset of large-scale violent dissent (Fearon & Laitin, 2003; Hegre et al., 2001; Hegre & Sambanis, 2005; Sambanis, 2004).

H₄: Opening the executive selection process for more competition decreases the probability of outbreak of large-scale violent dissent.

H₅: Large changes to the executive selection process increase the probability of outbreak of large-scale violent dissent.

H₆: Political instability increases the probability of outbreak of large-scale violent dissent.

To compare executive selection variables with more conventional measures of political institutions, I test two additional models, in which I replace the executive selection and change variables with indicators from the widely known Polity IV project (Marshall and Jaggers, 2002). I incorporate several control variables that are commonly

used in the civil war literature and that are of particular interest for analyzing insurgencies. Before outlining the control variables, I discuss the operationalization of rebellion and the main variables of interest, which capture the executive selection process.

Operationalization of the Executive Selection Process

To measure large-scale violent internal dissent, I use the Cross-National Time-Series Archive by Arthur Banks (2000). The variable combines two count variables from this archive, one that counts the number of guerrilla attacks and one that counts the number of rebellions, or revolutions, in each country-year. Guerrilla attacks are defined as ‘[a]ny armed activity, sabotage, or bombings carried on by independent bands of citizens or irregular forces’ (Banks, 2000). Rebellions are defined as large-scale, organized, and violent forms of events that are aimed at ‘[a]ny illegal or forced change in the top government elite’ (ibid.). Both forms of dissent refer to violent activities and are carried out by an organized group, which are the two criteria used to identify large-scale violent dissent in the context of this study. For example, in 1995 countries such as Angola, Liberia, and Uganda experienced such forms of dissent.

The variable is measured as a binary variable that takes on one if at least one guerrilla attack or rebellion was recorded for that year and zero for all other cases. Country-years of ongoing insurgencies were coded as missing since the analysis focuses on the onset of large-scale violent dissent and not on incidence or duration. I combine the two variables as both measure the large-scale violent forms of dissent I am interested in. The only difference between guerrilla attacks and rebellions according to Bank’s definition is that the objectives of rebellions are more far-reaching because they are

aimed at an overthrow of the government. It is not difficult to imagine, however, that dissent might start as a guerrilla movement, which involves unconventional tactics in trying to damage the government, but which adopts the more radical goal of overthrowing the government or of achieving secession from the central government later in the process. Since the basic tactics and characteristics of these two types of dissent are so similar, they are combined into one indicator of large-scale violent internal dissent, or insurgency.

To capture the nature of political institutions I use the 'Executive Scale' from the Africa Research Program.⁵ The data are based on various reference materials on Africa, such as *Africa Confidential* and *Africa Research Bulletin* and identify how the present incumbent came into power. The executive scale measures the electoral competition for the selection process of the executive in sub-Saharan Africa between 1970 and 1995.⁶ For my analysis, I create four dummy variables. The first variable, labeled '*not elected*' is coded one for cases where an executive exists but was not elected, zero otherwise. The second variable, '*single candidate*', is coded one for cases where the executive is elected but did not face any competition from a challenger and zero otherwise. The third variable, '*single party*', is coded one where more than one candidate competed in the elections for the executive but where opposition parties were banned, i.e. where the candidates were from the same political party, zero otherwise. And finally, the fourth variable, labeled '*Multiparty*', is coded one for all cases where candidates from more than one party competed in the elections for the executive.⁷

Using this measure instead of more common indicators for regime type or democracy has two advantages in the African context. First, it focuses exclusively on the most powerful political post in the country. Second, it accounts for the variety in one-

party systems found in Africa, where some one-party systems allow for more competition than others. The data differentiate between countries where only one candidate was up for election, where more than one candidate was on the ballot, but running for the same party, and countries with different candidates from different political parties.

To capture the direction of change in the executive selection process I subtract the ordered executive variable (1 = a not elected executive, 2 = one candidate executive elections, 3 = one party, multiple candidate election, and 4 = multiparty elections) from its lagged values and lag the change variable by one year. Positive values of this variable $change_{t-1}$ indicate that the executive selection process has become more competitive, negative values indicate a shift toward a less competitive selection process. To analyze the impact of large changes on the onset of rebellion, I create two step indicators; $step12_{t-1}$ is coded one for country-years during which a change of one or two steps on the executive scale has occurred, $step34_{t-1}$ is coded one for country-years during which a change of three or four steps has occurred, zero otherwise. As discussed above, particularly large changes, independent of whether they lead to a more open or a more closed executive selection process, are expected to create instability and to might increase the risk of rebellion. To test the impact of political instability in general (H_6), I include a dummy variable $instability_{t-1}$ indicating changes of more than two points on the polity variable over the past three years, which is the variable *inst3* from Fearon and Laitin (2003).⁸ All change variables are lagged by one time period.

To compare the results with data from the Polity project, I first create four dummy variables based on the variable *xrcomp*. This variable captures the competitiveness of executive recruitment and is conceptually closely related to my main

variables of interest. The dummy variables indicate an unregulated executive recruitment (*unregulated*), executive recruitment via selection, such as hereditary selection or designation (*selection*), dual recruitment, where one executive is selected by hereditary succession and the other by competitive election (*dual*), and executive recruitment through multiparty elections (*election*). This gives me an alternative measure of the executive selection process, although it does not capture the specifics of African context, such as the high proportion of one-party systems. Again, I create three change variables. $Change_{xr(t-1)}$ subtracts the original values from $xrcomp$ at time t-1 from $xrcomp$ at time t, so that positive values indicate a change towards a more competitive executive recruitment. $Step12_{xr(t-1)}$ is coded one for all country years where one or two steps in $xrcomp$ occurred during the previous year, $step3_{xr(t-1)}$ is coded one for all country years where three steps in $xrcomp$ occurred, and zero otherwise.⁹ Again all change variables are lagged by one time period.

Table I in here

Table I lists summary statistics of selected variables. The dataset contains 88 cases (12%) of onset of violent dissent. 33% and 35% of cases are classified as countries with a not elected or unregulated executive. Single candidate elections, or selection, are the most common form of executive recruitment. Changes of more than two steps in the executive selection scale are relatively rare. This is also reflected in the continuous change variables, where over 90% of the cases are coded as not experiencing any change.

In a third model, I replace the executive selection variables with the general regime type variable *polity*, which is the *polity2* variable from Polity IV and ranges from –10 (autocracy) to +10 (democracy). In this model, I include a dummy variable for inconsistent regimes (*anocracy*), which are expected to increase the risk of rebellion in line with the civil war literature (e.g., Fearon & Laitin, 2003; Hegre et al, 2001; Hegre & Sambanis, 2005). This variable is based on the *polity2* scale, where the original values between –6 and +6 are coded as one, all others as zero. Change is measured by $change_{pol(t-1)}$ which measures the changes of *polity2* from one year to the next.¹⁰ This change variable is also lagged by one year.

Control Variables

Several factors have emerged from previous research that are associated with an increased risk of civil war. Although civil war and large-scale violent dissent are not identical in their characteristics, I include the most common factors that have been found to influence civil war in as far as they inform how we conceptualize the dynamics of rebellion and guerrilla warfare. Prior to outlining the control variables drawn from the civil war literature, I briefly discuss three factors that play a particular important role when analyzing the outbreak of large-scale violent dissent: state violence, insurgencies in neighboring countries, and rural population density.

Large-scale violent dissent is likely to break out as a response to attacks by the national military or other *government forces*. This argument is supported by a large body of research that suggests that internal dissent is a reaction to government violence and repression (e.g., Carey, 2006; Francisco, 1995; Lichbach, 1987; Moore, 1998). Being attacked by government forces is likely to increase the motivation of potential rebels to

take up arms. I incorporate a measure that captures whether a government was fighting domestic groups at time $t-1$ and expect that such government attacks increase the risk of rebellions at time t . The variable is taken from the Africa Research Program and is coded one when a government was involved in fighting at time $t-1$, zero otherwise.

A second aspect that is expected to increase the risk of insurgencies is the occurrence of *neighboring dissent*. Guerrilla groups in one country might support rebels in other countries, both with the arms, expertise, and people, and as such enable domestic groups to start a rebellion in their own country. Insurgencies in one country might encourage similar activities in a bordering country. This argument has also been tested in the civil war literature, being supported by some studies (Sambanis, 2001), but not by others (Fearon & Laitin, 2003; Hegre et al., 2001). To measure the presence of large-scale internal conflict in neighboring countries, I create a variable that counts the number of bordering countries in which rebellions or guerrilla warfare took place at time $t-1$.

As large-scale violent dissent needs to be organized, the population density is likely to affect the ability of dissidents to group together potential rebels. I include a measure of *rural population density*. Governments have often less control over rural than over urban areas (Herbst, 2000b). Therefore, guerrilla movements are most often formed in rural areas, where their members are recruited from (Mkandawire, 2002). The geographical *area* of a country is expected to affect the ability of rebels to initiate violent attacks as well. In a larger country, guerrilla activities might be more difficult to coordinate. However, the vastness of many countries in sub-Saharan Africa, coupled with the relatively poor infrastructure, makes it more difficult for national governments to successfully project power across the whole area of the country, which should make

guerrilla activities more likely (Herbst, 2000b). I expect that countries occupying a geographically larger area are more prone to insurgencies than smaller countries.¹¹ The data for rural population density per square kilometer and the geographical size of the country in logged square kilometers are taken from the World Bank's World Development Indicators (WDI).

I control for *mountainous terrain*, which has received increasing attention in the civil war literature (e.g., Buhaug & Rød, 2005; Fearon & Laitin, 2003; Sambanis, 2004) and is particularly interesting when explaining the onset of insurgencies. Mountainous countries are expected to offer hideout places for rebels to plan attacks and to organize themselves. Therefore, countries with more mountainous terrain are expected to have a higher risk of experiencing an insurgency. The variable is taken from Fearon and Laitin (2003) and measures the percentage of mountainous terrain in each country.

Analyses of civil war have often classified rebellion as an economic activity that is driven by greed and by the opportunity to seek profit (e.g., Collier, 2000; Collier & Hoeffler, 2004). Collier and Hoeffler (2002) find that Africa has been particularly vulnerable to civil war due to its extremely poor economic performance. Although most of these arguments refer to civil war, they are relevant for the onset of insurgencies as economic performance influence the opportunity costs of potential rebels. I control for economic conditions using three variables commonly found in the civil war literature: *income per capita*, *economic growth*, and an indicator for *oil-exporting* countries. Both higher income and economic growth are expected to decrease the risk of the onset of guerrilla warfare since potential rebels face higher trade-offs for participating in violent dissent (e.g., Collier & Hoeffler, 2002; Elbadawi & Sambanis, 2000; Fearon & Laitin, 2003; Hegre & Sambanis, 2005). Oil-exporting countries are expected to be at a higher

risk of insurgencies due to the rents available from oil (de Soysa, 2002; Fearon & Laitin, 2003; Ross, 2004).¹² All three variables are taken from Fearon and Laitin (2003); income and growth are log-transformed.

An increasing number of studies analyze the impact of ethnic diversity on the outbreak and incidence of civil war (e.g., Collier & Hoeffler, 2002; Fearon & Laitin, 2000, 2003; Hegre et al., 2001; Sambanis, 2004). I control for *ethnic heterogeneity* and *ethnic dominance* since those two elements influence the ability of rebels to mobilize members of the population to initiate insurgencies. More ethnically heterogeneous populations as well as those with an ethnic majority are expected to be at a higher risk of rebellion.¹³ The data are taken from Fearon and Laitin (2003).¹⁴

Finally, to account for the temporal dependence I include a *decay function* of the number of years a country did not experience any large-scale violent dissent. The decay function is calculated as $\exp\{(-\text{years without dissent})/\alpha\}$ (Raknerud & Hegre, 1997; Toset et al., 2000). ‘Years without dissent’ were assigned the value 99 if the country had not experienced intra-state conflict of violent dissent since independence.¹⁵ I used 4.328 as value for α so that the effect of previous large-scale violent dissent is halved after three years.¹⁶ Multicollinearity does not pose a problem since the highest variance inflation factor is 2.55.

The Risk of Large-Scale Violent Dissent

Following previous studies on the outbreak of civil war, I use logit regression with robust standard errors to empirically investigate the risk of large-scale violent dissent in Africa.¹⁷ The data comprise 38 countries from sub-Saharan Africa between 1971 and 1995. As mentioned above, to concentrate on the outbreak of rebellions, I exclude all

consecutive years of insurgencies from the analysis. If guerrilla attacks cease for a whole year and then start again, the second outbreak is included in the analysis. Table II shows the results; Model I uses the executive selection variables from the Africa Research Program, where the reference category are cases where the executive was not elected.¹⁸ For comparison, Model II uses the executive selection measures from the Polity IV dataset, with an unregulated executive recruitment as reference category, while Model III employs the widely used polity indicator. The estimated correlation matrix for the estimates of Model I is included in the Appendix.

Table II in here

Before discussing the results with respect to regime characteristics, I briefly review the effects of the control variables on the onset of rebellion. The results obtained from the control variables are very similar across the models. Many variables that were expected to influence the opportunity costs of staging a rebellion are statistically insignificant. Neighboring dissent, rural population density, geographical area, mountainous terrain, and economic growth do not seem to affect the onset of large-scale violent dissent, as they fail to reach meaningful levels of statistical significance. Also, ethnic heterogeneity and ethnic dominance are not statistically significant.¹⁹ However, if government forces were fighting during the previous year, the risk of rebellion in the current year increases about threefold. As expected, being attacked by the government substantially increases the risk of violent dissent in the following year. Also, two of the three economic indicators are statistically significant with the sign in the hypothesized direction. Higher income per capita is associated with a lower risk of insurgency, while

oil-exporting countries have a higher probability of rebellion. In a country with higher per capita income it is indeed more difficult for dissidents to initiate an insurgency, probably because it is more difficult to mobilize usually young men to join a rebel movement. An alternative explanation is that higher per capita income indicates a stronger state, which is less likely to face an insurgency. Oil-exporting countries face a higher risk of insurgencies, which can be argued is due to the rent-seeking opportunities in such countries. These results support previous research that concluded that the higher incidence of civil war in Africa is due to poverty, failed political institutions, and economic dependence on natural resources - not ethnic diversity (Elbadawi & Sambanis, 2000).

With respect to regime characteristics, the results show that any form of executive election is better than not electing the executive at all. A country where only one candidate stood for the executive election has an almost 80% lower risk of rebellion than a country without an elected executive, while a country with multiparty elections reduces that risk by 85%. Although the single party variable has a negative sign, it does not reach statistical significance at any meaningful levels; but only ten cases in the data are classified as single party election. The results show that even symbolic elections that do not give the voters any choice are associated with a substantially lower risk of violent dissent, compared to countries where the executive has been chosen without an election. These results clearly do not support Hypothesis 1, which expected a non-elected executive to be associated with a lower risk of rebellion. The results also offer no support for Hypothesis 3, which argued that single candidate and one-party elections increase the risk of such violence. Hypothesis 2, however, is supported as multiparty executive elections substantially reduce the probability of large-scale violent dissent.

The results suggest an only limited impact of changes in the executive selection process on the risk of insurgencies; none of the hypotheses on change (Hypotheses 4 and 5) are supported. Continuous change of the executive selection process (Model I) just reaches the 0.1 level of statistical significance, but it has a positive sign, suggesting that changes towards more competitive executive selection increases the risk of rebellion, which is contrary to what was expected. However, the level of statistical significance is very low and the coefficient is very small (with an odds ratio of 1.39). None of the step-change indicators reach conventional levels of statistical significance. In Models II and III none of the lagged change variables are statistically significant either. However, political instability is statistically significant and has a particularly large effect in the model using the Africa-specific regime variables (Model 1). Here, the risk of large-scale violent dissent increases almost 3.5 times after the country experiences political instability. In the other two models, the risk of rebellion more than doubles during that time. These results lend strong support to Hypothesis 6, which expected political instability to increase the probability of outbreak of large-scale violent dissent.

Figure 1 in here

Figure 1 shows the point estimates and the 95% confidence intervals of the predicted probabilities of insurgency onset under various scenarios. For all scenarios the continuous control variables are set at their mean and the binary variables at zero, which is their modal value. The first vertical line shows the 0.14 probability, together with the 95% confidence interval, of an insurgency breaking out in a country where the executive has been chosen without an election, the second line shows the risk of an insurgency

with single candidate executive elections, the third represents a country with multiparty executive elections. 'Change_{t-1}' indicates the probability for a country undergoing a major change towards more competitive elections, i.e. moving three points up on the ordinal executive scale at t-1. For this scenario, the executive selection process is coded as multiparty election because if a country is three points higher on the executive selection scale at time t than at time t-1, then it has to have a system of multiparty elections at time t. The last vertical line represents the risk of rebellion in a country with political instability at time t-1 in a system of single candidate executive elections, as this is the most common form of executive selection in the sample. Note that due to the generally small probability of an insurgency breaking out, the y-axis ranges from 0 to 0.5.

The graph shows that both a country with single candidate executive elections and one with multiparty executive elections have a lower risk of insurgencies than a country with a selected executive (with a probability of 0.036 and 0.024 respectively, compared to 0.145 for non-elected executive). It also shows that large changes in the executive selection process towards more competition increase the risk of rebellion (with a probability of 0.063), but the confidence interval is larger than for the other variables shown in this figure. Years of political instability in a country with single candidate elections for the executive (represented by the last vertical line in Figure 1) have a probability of 0.114 for rebellion, which is more than three times higher compared to a country with same characteristics but without political instability at time t-1.

Model II, which uses executive selection dummy variables based on *xrcomp* from Polity IV, shows that countries with an unregulated executive selection process (which is the control variable), are most prone to insurgencies. Compared to these

countries, those with a selection process have only a 22% risk of rebellion, and the risk of large-scale violent dissent in countries with executive elections is only 40% compared to a country with an unregulated executive selection process. The variable capturing a dual selection process is not statistically significant ($p=0.112$), but the coefficient indicates again a substantially lower risk of insurgency outbreak.

The results from Model II cannot be directly compared to those from Model I since the categories used in Model II are much broader because they do not distinguish between different types of elections. Whereas the message from Model I is that any election is better than no election, Model II shows that any regulation of the executive selection process is better than an unregulated process. This is not surprising, since the lack of regulation reduces the predictability of the selection process and as such is more prone to violence. In Model II elections only reach statistical significance at $p=0.056$, which could be due to the vague and broad nature of this measure. None of these alternative measures for changes in the executive selection process reach any meaningful level of statistical significance, although the negative signs suggest that changes towards a more competitive process are associated with a lower risk in rebellion.

Model III employs the commonly used polity and anocracy measures. The results show that the level of regime type does not affect the risk of insurgencies. These findings are in line with recent work, which fails to find support for the argument that democracies have a lower risk of civil war onset (Collier & Hoeffler, 2004; Fearon & Laitin, 2003; Reynal-Querol, 2002). Also changes towards a more democratic system ($change_{pol(t-1)}$) are not statistically significant. The models that use the executive selection variables give us more details on which institutional characteristics lower the

risk of rebellion, while the indicators from the Africa Research Program (Model I), provide the most details, which are also specific to the African continent.

Conclusion

This study analyzed how one particular aspect of political regimes affects the outbreak of insurgencies in sub-Saharan Africa. It focused on the impact of the executive selection process and on changes to this process. The results provided certain details on how political institutions and insurgencies are linked that more general measures for democracies are unable to give. They highlighted that any election of the executive is better than choosing the executive without election with respect to the outbreak of rebellion. Multiparty elections or elections where the electorate had the 'choice' of only one candidate substantially reduce the risk of large-scale violent dissent compared to countries where the executive was selected without an election. The risk of insurgencies in a country with a one-party system and multiple candidates competing for the post of the executive was indistinguishable from the risk in a country without elections, but this could also be due to the small number of such cases (N=10). Using a different measure for the executive selection process supported the result that the more open the executive selection process, the lower is the risk of insurgencies. The more restricted the process of selecting the most powerful political position in the country, the lower the opportunity costs of staging a rebellion, all else being equal, as there are no institutionalized and peaceful means available to potential rebels to influence the choice of the executive.

Concentrating on executive recruitment as one element of political regimes, therefore, does not produce an inverted U-shaped relationship between level of democracy and risk of internal violence as previous work has suggested. Other studies

(e.g., Collier & Hoeffler, 2004; Fearon & Laitin, 2003; Reynal-Querol, 2002) have not found any statistically significant link between democracy and civil war, using the general polity indicator. This lack of a relationship between the overall democracy measure and internal violence has been replicated in this present study, where the polity scale and the anocracy dummy variable were not statistically significant in analyzing large-scale violent dissent. These results lend strong support to the argument that it is worth disaggregating political regimes to find out exactly how different political institutions affect the risk of internal violence. More substantial information and more accurate linkages are discovered using more detailed measures instead of broad categories of democracy. The fact that some previous research has failed to find a significant impact of political regimes on civil war or other internal conflict does not necessarily mean that the nature of political regimes does not matter for such events. Instead, it calls out for more specific measures of certain elements of political regimes, which also take into account regional particularities, as the results from this article suggest.

Changes to the executive selection process have been shown to affect the risk of rebellion only marginally. Only the variable measuring continuous changes in the executive selection process in Model I, which uses the Africa-specific data on executive selection, is statistically significant, but with a positive impact, i.e. suggesting that changes towards a more competitive system slightly increase the risk of rebellion at time t . None of the alternative measures of change reach statistical significance. Political instability, however, increase the risk of insurgencies more than threefold. With respect to the control variables, the results lend further support to the argument that intra-state

violence is driven by political and economic factors instead of being the result of ethnic diversity or ethnic dominance.

I argued above that concentrating on one aspect of a political regime allows us to make more detailed policy prescription than using general measures. So what have we learned from this research? First, executive elections matter. Even if they do not allow for adequate competition and choice, they are a step in the right direction. It can also be argued that once the citizens get the taste for electing their leaders, over time they demand more meaningful representation and more competitive selection procedures. When the willingness to reform is limited, making the executive selection process more democratic, which might be particularly difficult, however, substantially decreases the risk of violent dissent. The results highlight again that the international community should be vigilant when a country undergoes significant changes to its political institutions. Political instability often creates a power vacuum, or at least destabilizes the current balance of political power. Rebels are likely to use this opportunity of weakened state power with initiating guerrilla warfare and insurgencies during these times.

The present analysis focused exclusively on what drives large-scale violent dissent in sub-Saharan Africa. This type of violence has serious implications for the stability of countries and for the people living within the affected areas. Further research into these extreme forms of protest is needed to gain a better understanding of the dynamics behind them in different parts of the world.

Table I. Summary Statistics for Selected Variables

		<i>Value = 1</i>	<i>%</i>
Onset		88	12.22
Instability		97	13.47
<i>Executive selection process based on the Africa Research Program</i>			
Level variable:	Not elected	235	32.64
	Single candidate	309	42.92
	Single party	10	1.39
	Multiparty	166	23.06
	Total	720	100
Change Variable:	Step12 _{t-1}	36	5.00
	Step34 _{t-1}	16	2.22
	Change _{t-1}	-3	0.42
		-2	0.42
		-1	1.39
		0	92.78
		1	1.81
		2	1.39
		3	1.81
	Total Change _{t-1}	720	100
<i>Xrcomp from Polity IV</i>			
Level Variable:	Unregulated	257	35.79
	Selection	360	50.14

	Dual	20	2.79	
	Election	81	11.28	
	Total	718	100	
Change Variable:	Step12 _{xr(t-1)}	25	3.48	
	Step3 _{xr(t-1)}	9	1.25	
	Change _{xr(t-1)}	-3	4	0.56
		-1	12	1.67
		0	684	95.26
		1	5	0.70
		2	8	1.11
		3	5	0.70
	Total Change _{xr(t-1)}	718	100	

Table II: Logit Regression: Lagged Regime Characteristics and Onset of Large-scale Violent Dissent

	<i>Model I</i>	<i>Model II</i>	<i>Model III</i>
	<i>Executive Selection</i>	<i>Executive Selection</i>	<i>Regime Type</i>
		<i>(Polity)</i>	<i>(Polity)</i>
<hr/>			
Executive Selection			
Single candidate	-1.507*** (0.35)		
Single party	-0.544 (1.63)		
Multiparty	-1.926*** (0.47)		
Change _{t-1}	0.332* (0.20)		
Step12 _{t-1}	-0.467 (0.63)		
Step34 _{t-1}	-0.785 (0.75)		
Selection		-1.494*** (0.33)	
Dual		-2.008 (1.26)	
Election		-0.911* (0.48)	
Change _{xr (t-1)}		-0.014 (0.25)	
Step12 _{xr (t-1)}		-0.743 (0.84)	
Step3 _{xr (t-1)}		0.069 (0.88)	
Polity			-0.045 (0.03)
Anocracy			0.085 (0.36)
Change _{pol (t-1)}			0.065 (0.05)
Instability _(t-1)	1.236*** (0.36)	0.861* (0.37)	0.783* (0.37)
Govt. forces _(t-1)	1.092*** (0.32)	1.044*** (0.31)	1.029*** (0.30)

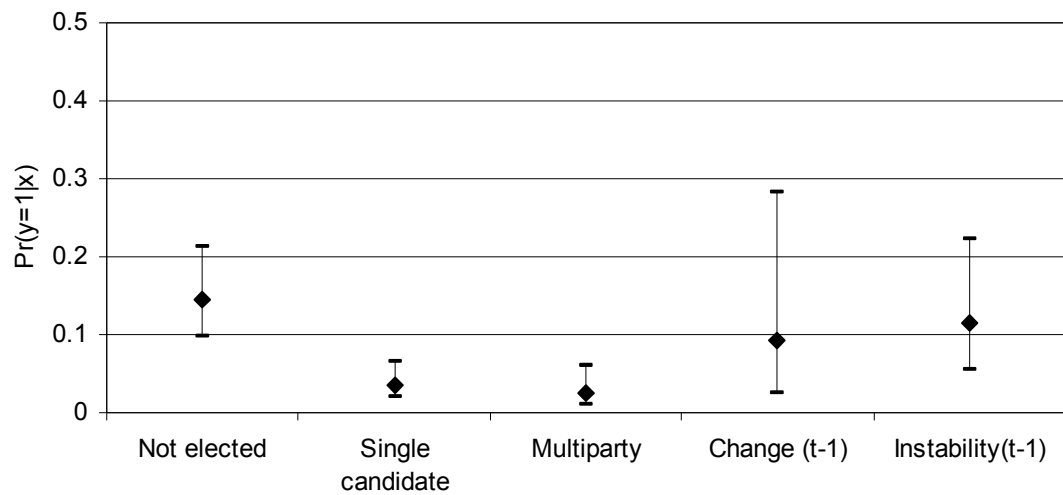
Neighb. dissent _{t-1}	0.126	(0.14)	0.055	(0.14)	-0.013	(0.14)
Rural pop. density ^a	0.289	(0.23)	0.327	(0.20)	0.265	(0.20)
Area ^a	-0.072	(0.12)	0.080	(0.12)	-0.004	(0.11)
Mountainous terrain	-0.002	(0.01)	0.005	(0.01)	-0.004	(0.01)
Income per capita ^a	-1.265***	(0.36)	-0.695*	(0.33)	-1.089**	(0.36)
Economic growth ^a	-1.349	(1.64)	-0.637	(1.69)	-0.284	(1.72)
Oil	1.049*	(0.50)	1.084*	(0.49)	1.245**	(0.47)
Ethnic heterogeneity	-0.167	(1.09)	-0.188	(0.99)	-1.115	(0.91)
Ethnic dominance	0.045	(2.06)	2.149	(2.16)	-0.208	(2.04)
Decay function	-1.602***	(0.44)	-1.478***	(0.44)	-0.784*	(0.35)
Constant	-0.217	(2.71)	-4.099	(2.73)	-1.933	(2.40)
N	720		718		746	
N of onsets	88		88		90	
Wald Chi ²	57.2***		61.95***		41.12***	
Pseudo R ²	0.138		0.123		0.072	
Log pseudolikelihood	-230.489		-234.304		-254.980	

Note: Robust standard error in parentheses.

* p<.1, ** p<.01, *** p<.001 (two-tailed test).

^a Variables transformed using the natural log.

Figure 1. Probability of Large-Scale Violent Dissent under Different Institutional Settings, Point-Estimate and 95% Confidence Interval.



Note: Note that the scale of the y-axis representing the probability of outbreak of large-scale violent dissent ranges from 0 to 0.5 in this graph.

Notes

¹. Desai and Eckstein argue that an insurgency ‘combines three elements: first, the “spirit” of traditional peasant “rebellion”; second, the ideology and organization of modern “revolution”; and third, the operational doctrines of guerrilla warfare’ (1990: 442). One characteristic they attribute to insurgencies is that they take place in a rural setting. This distinction between rural and urban location does not factor into the characterization of internal violent dissent as understood in the present study. To avoid repetition, I use the terms rebellion, guerrilla warfare, and insurgencies to describe large-scale violent dissent.

². For a detailed discussion of operational definitions of civil war, see Sambanis (2004).

³. This is not to say that other regime characteristics, for example whether a country is a federal or a unitary state, have no influence on the conflict potential of a country. But since in the African context the executive plays a particularly important role, the way in which that post is filled is likely to further contribute to our understanding of what countries are in danger of experiencing the outbreak of insurgencies and rebellions.

⁴. See <http://africa.gov.harvard.edu/>.

⁵. See <http://africa.gov.harvard.edu/data/data1.htm> for further details and for the data.

⁶. The values of the original executive scale are: 1 ‘no executive exists’, 2 ‘executive exists but was not elected’, 3 ‘executive is elected, but was the only candidate’, 4 ‘executive is elected, and more than one candidate competed for the office’, 5 ‘multiple parties were also able to contest the executive elections’, and 6 ‘candidates form more than one party competed for the executive elections’.

⁷. Liberia in 1990 is the only case in the dataset that is coded as ‘no executive exists’. It is treated the same way as a not elected executive. To check the influence of this case on the results, I ran the analysis without this observation. This had no effect on the results.

⁸. Political instability captures instability that results from any substantial changes to the political system during the past three years, whereas the other change and the two step-change variables focus specifically on changes in the executive selection process in the past year.

⁹. Cases with larger changes were not present in the data.

¹⁰. A squared change variable capturing large changes independent of the direction of change could not be included due to collinearity.

¹¹. The civil war literature usually controls for the size of the population, finding that larger populations are more prone to civil war (e.g., Fearon & Laitin, 2003; Sambanis, 2004). Since geographical and population size of a country are highly correlated, I only include a measure for geographical size since the argument relating to this indicator is theoretically more interesting than population size. Population size, if replacing geographical size, is positive but statistically insignificant with $p = 0.9$.

¹². For a detailed discussion of the link between natural resources and civil war, see Ross (2004).

¹³. For a more detailed discussion of how ethnicity influences civil war, see Fearon and Laitin (2003).

¹⁴. The variables I used are *ef* for ethnic heterogeneity and *second* for ethnic dominance. To check the robustness of the results, I replace those data with two variables from Collier and Hoeffler (2004), *elfo* and *etdo4590*. The results remained substantially the same.

-
- ¹⁵. I used the PRIO/Uppsala data (Gleditsch et al., 2002) on intra-state conflict for information on conflict prior 1970, which is the beginning of my data.
16. Beck, Katz & Tucker (1998) suggest using splines to account for the time dependence of peace duration. Using a counter for the number of peacyears with splines produces very similar results.
- ¹⁷. Using rare events logit (King and Zeng 2001a, b) or generalized estimating equations (Zorn, 2001) produce almost identical results.
- ¹⁸. As mentioned above, this includes one case of no executive (Liberia in 1990), but excluding this case does not affect the results.
- ¹⁹. The results are the same if alternative measures are used for ethnic fractionalization and polarization.

References

- Ali, Taisier M. & Robert O. Matthews, 1999. *Civil Wars in Africa: Roots and Resolution*. Toronto: McGill-Queens University Press.
- Banks, Arthur, 2000. *Cross-national Time-series Database*. [machine-readable data file] Cross-National Time-Series Data Archive.
- Beck, Neil, Jonathan N. Katz & Richard Tucker, 1998 'Taking Time Seriously: Time-Series-Cross-Section Analysis with a Binary Dependent Variable', *American Journal of Political Science* 42(4): 1260-1288.
- Bratton, Michael & Nicolas van de Walle, 1997. *Democratic Experiments in Africa. Regime Transitions in Comparative Perspective*. Cambridge: Cambridge University Press.
- Buhaug, Halvard & Scott Gates, 2002. 'The Geography of Civil War', *Journal of Peace Research* 39(4): 417-433.
- Buhaug, Halvard & Jan Ketil Rød, 2005. 'Local Determinants of African Civil Wars 1970-2001', paper presented at the ECPR General Conference, Budapest, 8-10 September.
- Carey, Sabine C., 2004. 'Domestic Threat and Repression: An Analysis of State Responses to Different Forms of Dissent', In Sabine C. Carey and Steven C. Poe, eds., *Understanding Human Rights Violations: New Systematic Studies*. Aldershot: Ashgate (202-220).
- Carey, Sabine C., 2006. 'The Dynamic Relationship between Protest and Repression', *Political Research Quarterly* 59(1): 000-000.
- Collier, Paul, 2000. 'Rebellion as a Quasi-Criminal Activity', *Journal of Conflict Resolution* 44(6): 839-853.

- Collier, Paul & Anke Hoeffler, 2002. 'On the Incidence of Civil War in Africa', *Journal of Conflict Resolution* 46(1): 13-28.
- Collier, Paul & Anke Hoeffler, 2004. 'Greed and Grievance in Civil War', *Oxford Economic Papers* 56(4): 563-595.
- Davenport, Christian, 1995. 'Multi-Dimensional Threat Perception and State Repression: An Inquiry into Why States Apply Negative Sanctions', *American Journal of Political Science* 39(3): 683-713.
- Davenport, Christian, 1999. 'Human Rights and the Democratic Proposition', *Journal of Conflict Resolution* 43(1): 92-116.
- DeRouen Jr, Karl R & David Sobek, 2004. 'The Dynamics of Civil War Duration and Outcome', *Journal of Peace Research* 41(3): 303-320.
- Desai, Raj & Harry Eckstein, 1990. 'Insurgency: The Transformation of Peasant Rebellion', *World Politics* 42(4): 441-466.
- De Soysa, Indra, 2002. 'Paradise Is a Bazaar? Greed, Creed, and Governance in Civil War, 1989-99', *Journal of Peace Research* 39(4): 395-416.
- Elbadawi, Ibrahim & Nicholas Sambanis, 2000. 'Why are there so many Civil Wars in Africa? Understanding and Preventing Violent Conflict', *Journal of African Economies* 9(3): 244-269.
- Ellingsen, Tanja & Nils Petter Gleditsch, 1997. 'Democracy and Armed Conflict in the Third World', In Ketil Volden and Dan Smith, eds., *Causes of Conflict in Third World Countries*, Oslo: North-South Coalition and International Peace Research Institute, Oslo (69-81).
- Fearon, James D., 2004. 'Why Do Some Civil Wars Last So Much Longer Than Others?' *Journal of Peace Research* 41(3): 275-301.

- Fearon, James D. & David D. Laitin, 2003. 'Ethnicity, Insurgency, and Civil War', *American Political Science Review* 97(1): 75-90.
- Francisco, Ronald A., 1995. 'The Relationship between Coercion and Protest: An Empirical Evaluation in three Coercive States', *Journal of Conflict Resolution* 39(2): 263-282.
- Gates, Scott, 2002, 'Recruitment and Allegiance: The Microfoundations of Rebellion', *Journal of Conflict Resolution* 46(1): 111-130.
- Gleditsch, Nils Petter, 1995. 'Democracy and the Future of European Peace', *European Journal of International Relations* 1(4): 539-571.
- Gleditsch, Nils Petter, Peter Wallensteen, Mikael Eriksson, Margareta Sollenberg & Håvard Strand, 2002. 'Armed Conflict 1946–2001: A New Dataset', *Journal of Peace Research* 39(5): 615–637.
- Hegre, Håvard, Tanja Ellingsen, Scott Gates & Nils Petter Gleditsch, 2001. 'Toward a Democratic Civil Peace? Democracy, Political Change, and Civil War, 1816-1992', *American Political Science Review* 95(1): 33-48.
- Hegre, Håvard & Nicholas Sambanis, 2005. 'Sensitivity Analysis of the Empirical Literature on Civil War Onset', paper presented to the Norwegian National Political Science Conference, Hurdalsjøen, January 5–7.
- Henderson, Errol A. 2000. 'When States Implode: The Correlates of Africa's Civil Wars, 1950-92.' *Studies in Comparative International Development* 35(2): 28-47.
- Henderson, Errol A. & J. David Singer, 2000. 'Civil War in the Post-Colonial World, 1946-92', *Journal of Peace Research* 37(3): 275-299.
- Herbst, Jeffrey, 2000a. 'Economic Incentives, Natural Resources and Conflict in Africa.' *Journal of African Economies* 9(3): 270-294.

- Herbst, Jeffrey, 2000b. *States and Power in Africa: Comparative Lessons in Authority and Control*. Princeton: Princeton University Press.
- Herbst, Jeffrey, 2004. 'African Militaries and Rebellion: The Political Economy of Threat and Combat Effectiveness', *Journal of Peace Research* 41(3): 357-369.
- Kasfir, Nelson, 2005. 'Guerrillas and Civilian Participation: The National Resistance Army in Uganda 1981-86,' *Journal of Modern African Studies* 43(2): 271-296.
- King, Gary & Langche Zeng, 2001a. 'Explaining Rare Events in International Relations', *International Organization* 55(3): 693-715.
- King, Gary & Langche Zeng, 2001b. 'Logistic Regression in Rare Events Data', *Political Analysis* 9(2): 137-163.
- Lichbach, Mark I., 1987. 'Deterrence or Escalation? The Puzzle of Aggregate Studies of Repression and Dissent', *Journal of Conflict Resolution* 31(2): 266-297.
- Marshall, Monty G. & Keith Jaggers, 2002. Polity IV Project: Political Regime Characteristics and Transitions, 1800-2002. Dataset Users' Manual, University of Maryland.
- Mkandawire, Thandika, 2002. 'The Terrible Toll of Post-Colonial "Rebel Movements" in Africa: Towards an Explanation of the Violence against the Peasantry', *Journal of Modern African Studies* 40(2): 181-215.
- Moore, Will H., 1998. 'Repression and Dissent: Substitution, Context, and Timing', *American Journal of Political Science* 42(3): 851-873.
- Raknerud, Arvid, and Håvard Hegre, 1997. 'The Hazard of War: Reassessing the Evidence for the Democratic Peace', *Journal of Peace Research* 34(4): 385-404.
- Reynal-Querol, Marta, 2002. 'Political Systems, Stability and Civil Wars', *Defense and Peace Economics* 13(6): 465-483.

- Ross, Michael L., 2004. 'What Do We Know About Natural Resources and Civil War?' *Journal of Peace Research* 41(3): 337-356.
- Sambanis, Nicholas, 2001. 'Do Ethnic and Non-Ethnic Wars Have the Same Causes? A Theoretical and Empirical Inquiry (Part 1)', *Journal of Conflict Resolution* 45(3): 259-282.
- Sambanis, Nicholas, 2004. 'What is Civil War? Conceptual and Empirical Complexities of an Operational Definition', *Journal of Conflict Resolution* 48(6): 814-858.
- Sarkees, Meredith Reid, 2000. 'The Correlates of War Data on War: An Update to 1997', *Conflict Management and Peace Science* 18(1): 123-144.
- Toset, Hans Petter Wollebæk, Nils Petter Gleditsch and Håvard Hegre, 2000. 'Shared Rivers and Interstate Conflict', *Political Geography* 19(8): 971-996.
- Tarrow, Sidney, 1994. *Power in Movement: Social Movements, Collective Action and Politics*. Cambridge, UK: Cambridge University Press.
- Zanger, Sabine C., 2000. 'The Global Analysis of the Effect of Political Regime Changes on Life Integrity Violations, 1977-93', *Journal of Peace Research* 37(2): 213-33.
- Zorn, Christopher J.W., 2001. 'Generalized Estimating Equation Models for Correlated Data: A Review with Applications', *American Journal of Political Science* 45(2): 470-490.