

**Greed, Grievance, and Mobilization:
The Onset of Protest, Rebellion, and Civil War**

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Greed, grievances, and mobilization are generally offered as explanations for rebellion and civil war. We extend arguments about the precursors to non-violent protest, violent rebellion, and civil war. These arguments motivate a series of hypotheses that are tested against data from the Minorities at Risk Project. The results of our analysis suggest, first, that the factors that predict anti-state activity at one level of violence do not always hold at other levels; second, the response by the state has a large impact on the subsequent behavior of the rebels; and third, that the popular notion of diamonds fueling civil unrest is not generally supported. We draw inferences from our results to future theoretical and policy development.

Introduction

Recent arguments and evidence suggest that civil wars are rooted in causes that reflect a combination of "greed and grievance" (Collier, 2000). The more widely accepted explanations generally focus on the grievance dimension, which assumes some form of resource or political deprivation (eg. Gurr, 1970; 2000). The greed explanation on the other hand assumes that rebels act in pursuit of self-interested material gain. Oil, diamonds, timber, and other primary commodities form the basis of the contestable resources over which rebels fight their governments. The term "greed", moreover, serves as a convenient moniker to describe self-interested behavior and the resources available to pay selective benefits. In effect, a strong resource base serves as a mechanism for mobilization.

We posit that grievance-based issues are at the core of the process that leads to civil conflict, but that "greed" becomes salient when the rebel leadership begins to face a difficult task of motivating soldiers. In effect, grievance leads to collective behavior, but defection is always a problem so rebel leaders resort to selective benefits that tap into self-interested behavior. That is, since preferences of the leadership and soldiers generally differ, the leaders must pay selective benefits to keep rebel soldiers from defecting. This is made easier when extractable resources are contested and controlled by rebel forces. The most visible instances currently involve Sub-Saharan African countries trading in easily extractable diamonds, but the opiate trade in Asia and South America also reflects this role of exploitable resources as one mechanism for fueling civil wars. Our argument proceeds as follows. First, we ground our discussion in a general body of literature, for which the greed explanation provides a small but influential component. Next we present a theoretical framework from which to think about the role of self-

interested versus collective behavior in civil wars. We then present a research design and analysis that uses data on civil conflicts in the Post WWII era to test hypotheses derived from our model. Finally we discuss the results of our analysis. Briefly, the results of our analysis suggest that income and distributional issues, repressive policies of the state, and access to exploitable resources is each associate with the onset of protest, rebellion, and civil war. Ethnicity and regime type provide mixed results.

Grievances, Mobilization and Civil Wars

There is a rather long history in the study of internal conflicts, with much of the early research on internal conflict focused on questions related to levels of inequality and deprivation. Gurr (1970) and others (eg. Davies, 1962) articulated models suggesting that the gap between expectations and achievement would contribute to the willingness of people to rebel; in particular rebellion was fueled by movements in this perceived deprivation. In effect if recent trends led to the expectation of a continued increase in the satisfaction of economic and social needs, any sharp or sudden decline from that trend would result in an intolerable gap between expectations and achievements. Gurr outlined the social determinants of relative deprivation and made more explicit the criteria with which to evaluate the desires and achievements of a social group. The evidence supporting the deprivation arguments was not overwhelming, but in spite of this the logic behind the arguments had intuitive appeal (Brush, 1996). Numerous scholars have alternatively challenged or advanced these types of arguments with varying degrees of empirical or logical success (eg. Gurr and Moore, 1997; Lichabach, 1994).

A variant of the relative deprivation argument posits that inequality is a cause of internal dissent and revolution. Structural inequality has been linked to the mass political

violence characteristic of revolutionary movements in the developing world, though the evidence is mixed as to whether it is income or land inequality that is of greatest importance (Russett, 1964; Midlarski, 1988; Muller and Seligson, 1987). The inequality - either land or income -- generates discontent among those who go without, resulting in large-scale political violence that if handled poorly by the state can evolve into civil war. As with evidence pertaining to relative deprivation as a cause of civil conflict, inequality as an explanation rests on strong theoretical foundations though the evidence is mixed, possibly a result of unreliable data sources (Brockett, 1992).

The difference between relative deprivation and inequality as an explanation for civil upheaval may seem subtle at first, but the underlying causal mechanisms are profoundly different. In the former instance the perceived deprivation is a psychological process where judgment is made relative to one's own expectations. The aggregation of these individual perceptions and frustrations leads to a social movement intent on violent political change. The mechanisms of inequality work differently. Rather than an individual judging their situation relative to their own expectations and achievements, inequality is judged relative to others within society. Both explanations are consistent with each other and both are likely to be evident concurrently. But those who argue for inequality as the causal mechanism are implicitly positing that issues of social and economic justice generate the motives behind armed opposition movements.

Others argue, however, that grievances are not sufficient for organized internal conflict and point to the need to have mobilized groups acting collectively (eg. Tilly, 1978; Tarrow, 1994). Those who view mobilization as the key to civil unrest tend to minimize the importance of inequality or relative deprivation-type factors, arguing that

these conditions are, for the most part, always present (eg. Tilly, 1978). Given that there are structural "reasons" for expressing discontent, it is the ability to mobilize resources that determines the extent of internal conflict. To Tilly this is conceived as groups contending over political issues, while Huntington (1968) framed this in terms of the incongruity between political mobilization -- meaning political modernization -- and political institutions that results in revolution.

DeNardo (1985) and Lichbach (1990) formalized the decision to participate in opposition movements, strengthening the logical arguments at the core of the mobilization thesis. DeNardo demonstrates that civil wars require, among other things, effective strategies; strategies facilitate the mobilization around issues of discontent. Lichbach (1990) uses a game theoretic approach to show that a rational person will not rebel against inequality, absent a change in the expected payoff from participation in the movement. That is, inequality alone is not sufficient to generate a rebellion. Effectively the collective action problem should prevent the rational peasant from participating in an organized rebellion (Lichbach, 1994; Olson, 1968). Overcoming the collective action problem appears to be a critical link in mobilizing mass action, with selective incentives appearing to be a necessary ingredient (Lichbach, 1994), though others minimize the role of the collective goods problem in social movements (eg. Tarrow, 1994). In essence DeNardo's analysis suggests one way to conceive of a solution to the collective goods puzzle by insulating the non-elite from the elite. Put differently, strategists are able to deflect some of the costs associated with participation in armed conflict and therefore change the potential payoff to the participants.

Many of these ideas have been tested empirically against data on groups with the potential for protest and rebellion. Gurr (1993; 2000) identifies the population of minority groups at risk and uses data on a number of contextual variables to draw inferences about the conditions under which these groups are more likely to engage in protest or rebellion. It is presumably the at risk population that are the most likely to rebel against state authority. Critical to the likelihood of at risk groups protesting or rebelling are incentives and opportunity (Gurr, 2000). According to Gurr, incentives are generally rooted in various forms of discrimination, while opportunity depends on a number of factors, one of which is the authority of the rebel leadership. The greater the level of authority accorded the leadership the easier it is to mobilize soldiers in pursuit of a collective good. As the authority wanes, so to does the support of the populace. The evidence he presents points to a combination of three factors as the critical determinants of civil conflict: domestic structures, opportunity to mobilize, and the structure of incentives.

An economic variant of the mobilization argument has suggested that civil war might be fueled by self-interested behavior, such that rebels are motivated by “greed” rather than grievance (Collier, 2000; with Hoeffler, 2000). In effect the argument presents an economic model of rebellion, where participation is a form of crime and the rebels are criminals acting in pursuit of economic gains. Accordingly, the popular conception of rebellion as a result of severe deprivation is misleading, and generally reflects a view of extant conditions used by the rebel leadership to generate support of potential rebel soldiers (Collier, 2000:4). An economic model does not deny that grievance plays a role in explaining civil conflict, but sees grievances as being ubiquitous

across most at risk countries. Those rebel organizations that are able to mobilize troops and sustain a war effort are those that are and remain economically viable. Without resources even the most extreme grievances will be insufficient to generate civil unrest. When operationalized in terms of export commodities, the evidence seems to support the economic basis of civil violence (Collier and Hoeffler, 2000).

The economic constraints model and the mobilization variant converge conceptually on the focal point of generating participation in the rebel cause, whether as a form of labor, or as a result of identity with a group. In effect, entrepreneurs are able to capitalize on either economic or social needs to organize an opposition to the state. Both assume that grievances are a common condition in risk prone countries and that the largest factor preventing civil war is the constraints on the ability to mobilize. To the mobilization theorists these constraints are rooted in the collective action problem where private side payments are necessary to overcome the free rider problem. Without selective benefits it is difficult to get the soldiers to join the movement.

From the economic perspective the soldiers are employees working for a wage and the source of revenue to pay the soldiers is the looting associated with the conflict. Heath et al (2000) and Mason (1996) present this as a maximization issue for potential rebel soldiers deciding whether to support the government or the rebel movement. Each participant, from this perspective, is a self-interested actor, even though the soldiers might be manipulated into believing that they are fighting in pursuit of the redress of grievances (Collier, 2000).

Given this background on theoretical antecedents we articulate a model that builds on both the mobilization and grievance dimensions. We argue that grievance

forms the backbone of protest and rebellious movements, but that resources become necessary to pay selective benefits to keep the rational rebel soldier supporting a rebellious movement, and in order to offset government efforts to lure the rebel soldiers away.

A Theoretical Framework

We work from the rather long tradition, which posits that political mobilization reflects rational behavior (eg. Popkin, 1979; Lichbach, 1990; Heath et al, 2000). That is, people mobilize against their state in response to current or anticipated deprivation, but they do so only if it is in their interest. This deprivation can be rooted in access to either material or political resources, though both are often linked through the mechanisms for distributing a society's wealth. We also assume that the preferences of the soldier (non-elite rebel) and the movement leader differ on at least one significant dimension (Mason, 1996). Rebel leaders seek authority and control, albeit possibly so that they can help redress actual grievances. But at the core they view success in terms of a new distribution of political power, whether that is through a power sharing arrangement or outright and total control over the bureaucracy. The non-elite rebel, on the other hand, is motivated by personal gain in the form of a minimally accepted improvement in their personal standard of living. That is, while the rebel leadership will demand a share of political power, rebel soldiers will only demand adequate provisions that provide for conditions associated with their physical quality of life. One implication of this difference in goals is reflected in the importance of protection and resources in the provision of selective benefits provided to rebel soldiers.

We start with the notion of grievance. Grievance borne of deprivation is an individual concern that manifests itself collectively. Quite often material and political deprivation is aggregated within specific groups with a homogeneous cultural identity. For example, a religious or linguistic minority might suffer disproportionately in a given society, and this form of aggrievement can lead to unrest across the social lines that distinguish the minority group (Gurr, 2000). Therefore, while collective cohesion is a function of targeted maldistributions, it is individual penury that allows for this collective mobilization. We look for the roots of revolution and civil war in the maldistribution of resources within society that affects disproportionately particular communities of people. In effect, deprivation writ large borders on a necessary condition for civil war, though deprivation is not a sufficient condition. Lichbach (1994:389) captures this notion of individual motivation by articulating what scholars see as several truths of peasant upheavals:

- 1) peasants are unconcerned with broad purposes, philosophical systems, political theories, and the like;
- 2) peasant grievances are specific and well defined, limited and local;
- 3) peasant actions are...designed to satisfy material self interest, and therefore;
- 4) peasants will...participate in collective action when they stand to gain particularistic benefits.

The rebel elite, on the other hand, are willing to risk more, but also portend to gain more if they are successful – even if success entails a compromise outcome. That is, their motivation for leading a rebellion will be more in line with altering the material and political resources of a collectivity of people over self interested accumulation. In effect, in pursuit of this broad goal the rebel elite will organize those for whom the

deprivation is personal, and when necessary pay selective benefit to keep rebel soldiers in the fold.

Put differently, grievances are not socially constructed by rebel entrepreneurs (Collier, 2000), but instead lie at the core of the motivation to organize in response to the maldistribution of resources, such as land (Midlarsky, 1988) income (eg. Muller and Seligson, 1987), or political access. Initially, such involvement brings with it very little cost. However, as the state begins to respond to what it perceives as a threat, costs will be incurred at the individual level (Regan and Henderson, 2002; Gartner and Regan, 1996). As the cost of protest or rebellion increase a rational individual will look to defect from the movement, unless the rebel leader can find a way to counterbalance the costs by way of selective benefits. As the opposition movement germinates the requirements of the selective benefits can be rather low, but as the threat to the state increases, so to does the level of repression and subsequently the demands by rebel soldiers for selective side payments. That is, there is a distinction between the onset of protest and the onset of higher levels of civil conflict. Mobilization may be a necessary condition for civil conflict but non-violent protest and violent rebellion are distinct. This is evident in the data on Minorities at Risk (Gurr, 2000). Because initial mobilization may carry minimal cost, grievances may well be sufficient to motivate the disaffected to participate in protest activities. In economic terms the cost of rebel labor is low because the size of the potential labor pool is large. However, the costs associated with full scale revolt or civil war are such that only the provision of selected benefits that outweigh the costs imposed by the state for participation can spur an individual to remain committed

to the cause, and protection may be the most important side payment (eg. Heath et al, 2000).

Mason (1996; and with Heath et al, 2000) poses the question of when the non-elite will support the rebels or the government. Presumably each individual has the option of whether to lend support to one side, or neither, and that choice is predicted on maximizing their utility for a given level of effort. Three factors influence the conditions under which non-elite support a rebel movement: anticipated benefits, costs, and estimates of the likelihood that support for one group would be detected by the other. In the latter instance the costs are incurred when participation is detected. Using a maximization model analogous to the choice between paying or evading taxes, Mason demonstrates that when there are public benefits from rebel participation (ie, non-excludable), then rebel support will be largely a function of the fear of punishment if their support is detected (1996:70). When fear of detection is high the rebel leadership must resort to paying selective benefits (excludable). However, when the rebels control a specific region and rebel soldiers can be adequately protected, selective benefits can be reduced in proportion to the amount of protection offered by the rebels. Protection comes primarily in the form of shielding participants from the political repression meted out by the state, such that as the state increases repression more people will mobilize around the rebel cause in order to avoid the abuse at the hands of the state.

The general arguments present a picture of a group that seeks redress from its absolute or relative level of deprivation, most often a result of formal or informal government policies to channel resources in particular patterns. This distribution of resources – or maldistribution – increases the incentives for the non-elite to support the

elite who are organizing an armed challenge to state authority. But rebel soldiers act rationally and only support a movement when they expect to gain materially from participation. Absent a strong philosophical attraction to the rebel movement the soldiers will be motivated most directly by the provision of both excludable and non-excludable benefits. Both the state and the rebel elite jockey for the support of the masses by providing a mix of protection, punishment, and benefits.

Our argument suggests that the importance of economic incentives, or at the extreme, avarice, depends on two factors: the level of repression a state administers toward suspected rebels, and the amount of protection the rebel movement can provide the individual. When repression is high the individual will be more concerned with protection, thereby decreasing the importance of economic concerns. In effect the excludable good provided by the rebel elite is protection against acts of violence perpetrated by the state. However, as coercion by the government decreases, concerns over protection gives way to those of income with the result that the individual participant must be paid for by means of some other excludable good, which we might think about in terms of income paid for their labor.

The escalation from political protest to civil violence or war is a function of the actions and reactions of the rebels and the state, and we argue, follows an identifiable sequence (Moore, 2000; 1998). As grievances lead to opposition against state policies, political entrepreneurs begin to mobilize opposition supporters. The state response is to try to minimize mobilization through efforts at coercion or concession (Bayan, 2002; Regan and Henderson, 2002). As the state gets more coercive the rebel entrepreneurs have a greater opportunity to provide protection to potential supporters, possibly in spite

of not being able to offer economic incentives comparable to those offered by the state (Heath et al 2000). Initially the opposition may adopt non-violent means, but as the opposition grows it will press for greater demands or concessions from the state, in part because their ability to do so has increased, but also because their constituency will reflect a wider spectrum. As the state responds with increasing repression the level of violence moves from protest to rebellion, and possibly to civil war (Gurr, 2000).

From this theoretical framework we articulate a series of testable hypotheses:

H1: The greater the level of inequality the higher will be the probability of observing the onset of protest, rebellion, and civil war.

Since the ability to provide excludable or non-excludable benefits sufficient to secure the support of the masses will be partially a function of the level of discontent at the status quo position, the lower the level of absolute or relative level of penury – political or material – the greater the marginal utility of each increment of a public or private benefit. Therefore potential rebels can be mobilized more easily when the pre-conflict status quo position provides for a rather low level of utility. This would be reflected in the wealth of the country that is distributable (per capita GDP) and the degree to which it is distributed equitably (GINI).

H2: Higher levels of political repression will decrease the likelihood of the onset of protest, but increase rebellion and civil war.

Civil wars do not emerge wholly from the wellspring of discontent, but rather move from lower levels of unrest toward large-scale violence and civil war.

Recruitment and mobilization are critical. The ability to recruit and organize rebel soldiers will be a function of the degree of protection that can be provided in return for support, or conversely, the level of random punishment meted out by the government. Initially repression will help to dissuade potential protesters from participation, but people involved in violent forms of rebellion will respond differently to government repression. When the opposition engages in violence high levels of state repression will lead potential rebel supporters to conclude that the probability of punishment is high and approaching certainty. Under these conditions potential supporters will join the movement in pursuit of protection from random punishment by the state.

H3.1: The existence of exploitable resources will increase the likelihood of the onset of rebellion, and civil war.

H3.2: However, given the lower cost for participation in protest activity extractable resources will have no effect on the onset of protest.

The ability to pay private selective benefits only to those who participate in the rebel movement is vitally important to a movement's viability. In general the government will have greater access to resources with which to pay selective benefits, even though they may choose to attempt to stifle participation through repression. In order for the rebel elite to compete with the state in providing private benefits they must obtain access to resources. Localized and easily extractable resources provide the most efficient means to generate income. Once – or if – they acquire access to exploitable resources these can be converted into private benefits that increase the incentives for the soldiers to maintain loyalty. The greater the ability to pay these selective benefits the

more loyal the rebel soldiers and the more difficult is the task facing the state in trying to offer its own array of private benefits.

We now move to present the results of tests of these hypotheses against data on protest, rebellion, and civil wars in the latter quarter of the 20th century. We describe our research design and testing procedures below.

Research Design

As our theoretical discussion suggests that we view the onset of civil war as a process that begins with low levels of protest and proceeds through higher levels of rebellion and finally, if not sufficiently addressed civil war. In order to test this conception of civil conflict we require data that is capable of capturing civil violence on a scale that reflects this process. We use data derived from the Minority at Risk (MAR) project for our outcome variables, with a temporal period spanning the years 1976-97.¹ We are restricted by data limitations to this time period, although we have no reason to expect a different underlying process during earlier or later periods. We use a logit estimator on three outcome variables reflecting non-violent protest, violent rebellion, and civil war, and then transform the coefficients associated with the logit into estimates of the predicted probabilities of observing each outcome. The difference among our indicators reflects the degree of violence, if any, associated with each type of action, with protest being non-violent, rebellion a violent activity, and civil war large-scale violence by armed and organized opposition forces.

¹ Specifically, we used the MARGene (Bennett and Davenport 2003) to generate country year data on protest and rebellion. The MARGene program produces data on the minimum, maximum and mean levels of protest or rebellion in a country/year. We use the maximum level for each of our indicators. If a country experiences both protest and rebellion in one year we use the higher level of action.

Outcome Variables

In an effort to capture the underlying process of civil conflict we used the Minority at Risk measures of protest and rebellion to create a 12 point ordinal scale we believe captures a continuum of civil conflict. The level of protest is measured on a five-point scale that at the low end are instances of “verbal opposition” and “symbolic resistance”, and at higher values indicate “small”, “medium”, and “large” scale demonstrations, respectively. The key element is that violence is not part of the protest indicator, and therefore captures the early stages of civil unrest. The Minorities at Risk Rebellion scale reflects a condition where violence becomes part of civil unrest, and to our minds involves an increasingly contentious period with greater risk of spiraling toward civil war. The MAR data record rebellion on a seven-point scale that measures the occurrence and intensity of rebellion within society. At the low end this variable captures the occurrence of “banditry and sporadic terror”, up to “intermediate guerilla activity”, “large scale rebellion”, and finally “protracted civil war”. We combine protest (0-5) and rebellion (6-12) into a single twelve-point scale. Using this scale we create three dichotomous variables of protest, rebellion, and finally civil war. If the highest action in a single year falls between a 1 and a 5 on this scale, *Protest* takes on a value of one. If the highest action is between a 6 and an 11, *Rebellion* takes on a value of one. Finally, if the highest action is a 12, *Civil War* takes on a value of one. These three dichotomous variables are our dependent variables.

The difference between protest and rebellion resides not in the size of the action but in the degree of threat targeted at the state. That is, the rebellion scale is differentiated from the protest scale by the fact that rebellion is classified by the MAR

data as anti-regime in nature. Therefore actions on the rebellion scale will be seen as a greater threat to the regime, and in response the regime is likely to increase the cost for those actions. Small scale banditry and sporadic terror may well be of a smaller scale than a large demonstration, but because the risk to the state is much higher when rebels use violence to attempt to destabilize or overthrow the state, the cost imposed by the state for participating in rebellious activities will be significantly higher for the individual.

Predictor Variables

We use eleven predictor variables that reflect conditions extant in the country that we argue should account for the frequency with which we observe protest, rebellion, or civil war. The data are derived from various sources; we report on each in turn.

Gini Index: The Gini Index is a measure of distribution of resources within a society, in effect measuring the degree to which resources are distributed equitably, or skewed toward a concentrated distribution (see Nagel 1974; Midlarsky 1988). When the actual distribution of resources is identical to a line of perfect equality, the value of the Gini score would be zero. As the actual distribution deviates from the ideal the Gini score for that country will increase to the upper bound of 1.0, reflecting a condition of extreme inequality. Data for the Gini index is taken from Deininger and Squire (1996). The data provided, moreover, reflects values at fixed intervals rather than annual observations, and for many countries data for most or all time periods are missing. This leaves options of either eliminate all cases of missing Gini data, or deriving the mean Gini value for the country in question to fill in missing cases. We adopt the

second strategy. When data are missing entirely for a country we fill in missing data by replacing those years with zeros and then including a dummy control variable for each instance where we created the zero Gini score (Green, 1993: 275). This procedure is known as modified zero-order regression, and allows us to complete the analysis without sacrificing existing data on other variables in the model.

Per Capita GDP: Per capita GDP reflects the wealth of a country without consideration of how that wealth is distributed. We use the natural log of per capita GDP as our indicator of national wealth, using data provided by Sambanis (2001).

Lagged Political Repression: To measure repression we use the Political Terror Scale (Poe, Tate, and Keith 1999; Gibney and Dalton, 1996). The Political Terror Scale measures human rights violations on a scale of 1-5, five being more severe violations.² The mean level of repression in a country-year is just over two; the mode is one.

Extractable Resources: Extractable resources are commodities for which the source is controllable in a defined area, the resource is easily extractable and exportable, and the proceeds from the sale can be substantial. We operationalize this in terms of three categories of exploitable commodities: diamonds, other gemstones, and opiates. Both diamonds and other gemstones – such as rubies, sapphires, and emeralds – are located in specific regions that can be controlled by rebel movements, and are small and easily transportable. Opiate production –

² The PTS is calculated using either the *U.S. State Department* or the *Amnesty International* annual reports. We rely on the *State Department* data as it is a more complete. The *Amnesty international* data contained roughly 25 percent more missing data.

poppy and coca – is also adaptable to specific locations and is transportable and marketable. We make the assumption that if a country produces any of these extractable resources in one year, then they have access to do so in all years. A diamond mine, for instance, does not go away simply because production declines in any particular year. Data for diamond, gemstones and opiate production are derived from the Diamond Registry, the National Gemstone association, and the US Drug Enforcement Agency, respectively.

Population: Population size is often associated with more frequent occurrences of civil violence (Powell 1982; Gurr et al, 2003). With a larger population the pool of possible rebels is larger; this decreases the risk that any one individual is punished for his rebellious action and as a result makes rebellion more attractive. To control for the affects of population size on the frequency of civil violence we include a logged population variable into the model. Data are derived from Poe, Tate, and Keith (1999).

Regime Type: We control for the regime characteristics in a country using the POLITY IV data. Our scale is based on the established 21 point index created by subtracting the autocracy from the democracy scores (-10 to 10). To test for a possible curvilinear relationship between regime-type and civil violence we include normalize the regime data to zero and include a squared-term into the model.

EthnoLinguistic Fractionalization: Ethnic heterogeneity is argued to be related to the onset of civil war (Sambanis, 2001), such that the more

heterogeneous the population the higher the likelihood of observing a civil war onset. We control for fractionalization using data provided by Sambanis (2001).

Previous levels of Protest or Rebellion: we control for previous levels of protest or rebellion by including lagged measures of each in our models. More specifically, in the second model where our outcome variable is rebellion, we include a lagged measure of protest; in the third model we include a lagged measure of rebellion.

Results

We present the results for all three models in Table 1. Model 1 reflects the conditions that lead to non-violent protest, Model 2 violent rebellion, and Model 3 civil war. We interpret the results of the analysis together in this section, and subsequently discuss the implications of each model individually in the following section.

[Table 1 about here]

We start with our indicators of income and its distribution. Our measure of the distribution of resources, the GINI index, is significantly associated with both protest and civil war, but is unrelated to violent rebellion, though it is positively related on protest and but negatively related to civil war. Further, the control for instances of missing GINI data is significant in all three models. Our interpretation is that when controlling for instances where there is not enough data to generate an GINI score for a country, or to extrapolate from existing data for some years to missing data on others, income

distribution is a significant predictor of the onset of protest, rebellion, and civil war³. Per capita income, as measured by lagged GDP, is insignificant in two of the three models. Oddly, the variable is significant in predicting civil war but in an unexpected direction; higher per capita income leads to a higher probability of civil conflict. This finding is unexpected and runs counter to much of our understanding about how individual wealth influences the probability of civil conflict. However, much of our understanding is not about individual wealth but about how that wealth is distributed in society. Per capita income does not tap into distribution; the Gini index may be more appropriate.

Extractable resources in the form of diamonds, gemstones, and opiate production provide contradictory findings. Extractables appear to significantly increase the probability of protest, while significantly decreasing the occurrence of rebellion. In model three extractables appear not to be associated with the occurrence of civil war. This is counter to our expectations and is also counter to other research pointing toward the role of resources as a factor in fueling civil war, as well as the conventional wisdom of diamonds being at the core of civil war.

Lagged levels of political repression are a very strong predictor of the current level of civil unrest. In regards to protest and rebellion the coefficient is negative – the more repression dished out by the state in year $t-1$ leads to less civil violence in the current year. That is, repression seems to work as a means of controlling the population; however, this seems to be true only in regard to lower scale violence. On the other hand

³ Although interpreting this variable does not hold much value, in general if the coefficient associated with the control variable divided by the coefficient associated with the complete data is close to the mean value of the GINI data, then the missing data were generated as a result of a random process. If the ratio of the control to the actual is quite different from the mean of the data, then some unobserved but systematic processes contributed to the missing data. In our analysis the protest and rebellion results suggest missing data for GINI scores are generated somewhat randomly, but those for civil wars are considerably more systematic in origin.

repression significantly increases the probability of full-scale civil war. As the level of repression increases rebel groups appear to bypass low scale events and move toward full scale civil war.

Interestingly, ethno-linguistic heterogeneity is associated with protest and civil war, but not rebellion. Somewhat counter-intuitively, higher levels of heterogeneity significantly reduce the occurrence of protest, but consistent with past work, heterogeneity significantly increases the occurrence of civil war. At an intuitive level these relationships are also consistent with what one might expect given notions of pluralism and democracy, where in more democratic states heterogeneity would increase the propensity to protest but not the escalation to violence, and in fact decrease the likelihood of civil war.

The level of democracy appears to be related to protest and civil war in a non-linear fashion, but the shape of that non-linearity is inverted when moving from protest (U shaped) to civil war (inverted U shaped). This non-linear result is rather intuitive for civil wars, with autocratic and democratic countries being associated with low probabilities of experiencing such high scale levels of political violence. In effect the highly autocratic governments can suppress opportunities for the organizing necessary for civil war, and highly democratic countries are efficient at channeling dissent. In the middle range countries they have insufficient capabilities to do either and therefore are more likely to experience organized armed rebellion that escalates to the level of civil war. Conversely, we would expect high levels of protest to be associated with high levels of democracy, but we would not expect highly autocratic countries to be tolerant of protest activities. In the middle ranges of regime characteristics we would anticipate that

the regime would put down efforts at protest, and in fact the coefficient associated with the lagged repression variable supports this inference.

We provide estimates of the predicted probabilities of protest, rebellion, and civil war in Tables 2-4. All three tables begin with a baseline probability of the specific outcome; changes from that baseline probability are then calculated for specific variation on the predictor variables.

[Table 2 about here]

For the baseline probability we use a hypothetical conflict, though one with a close relationship to the conditions in the Central African Republic, pre-1993. The baseline reflects a state with a fairly skewed distribution of wealth, high levels of repression, no access to extractable resources, relatively undemocratic, and somewhat high levels of ethnic fractionalization, in effect a country with a considerable likelihood of having anti-state grievances.⁴ This produces a baseline probability of observing protest at .19 (see Table 2). We then change the conditions to see how they influence the probability of protest. For example, as a state goes from highly repressive to non-repressive (5 to 1) the probability that we observe protest activities increases by 230%. Clearly, as the state relies on repressive tactics individuals see the potential cost of protest to be too great, but as the state becomes less coercive protest activity becomes more attractive. Having access to extractable resources increases the probability of protest by 28 percent, and moving from a heterogeneous to an more homogenous country increases protest by 63%.

⁴ More specifically, the baseline values are: .60 GINI, Repression=5, extractable resources=0, regime score=6, ELF=60, log of population=18.

Table 3 provides the same type of analysis as Table 2. The baseline model reflects the same conditions described in table 2 (see above). Again, altering these variables provides interesting insights into why rebellion occurs. Population has the biggest affect; when the population of the state decreases by one standard deviation below the mean the probability of rebellion decreases by 84 percent. States that are the most repressive again have a negative impact on the probability of repression. As a state moves from highly repressive to non-repressive, the probability of rebellion increases 64 percent. Clearly rebellion is less costly, and thereby more likely, when the state is less coercive.

[Table 3 about here]

[Table 4 about here]

Finally, Table 4 presents the probability of civil war. Again, the baseline reflects the same conditions as above. A change in the level of repression from high to a low results in an decrease probability of civil war by about 99 times the base rate. Repression may work to quell small scale protest and rebellion, but when used in excess it may actually lead to a higher probability of conflict. Moreover, population plays a significant role in the occurrence of civil war. A state with low population levels decreases its chance of experiencing civil war by over 50 percent. Becoming less fractionalized ethnically decreases the probability of civil war by 13 percent.

Discussion

The results of our analysis point to interesting inferences about the conditions that contribute to the propensity for protest, rebellion, and civil war. At the outset, it is

evident that these three outcomes are not the same, nor maybe are they part of the same process. That is, the conditions under which states will experience non-violent political protest appear to be quite different from the conditions that will lead a citizenry to organize an armed opposition to state authority. For example, regime characteristics are related to the onset of both protest and civil war, but the shape of that relationship is dramatically different for each outcome. Middle levels of the conditions associated with democratic government are associated with a low likelihood of political protest, but high likelihood of civil war. This would suggest that some of the intermediate institutions of democracy provide for a sufficient amount of political and economic opposition, as well as the ability to organize around those issues, that opponents can mount a formidable challenge to state authority. Alternatively, this same environment is not conducive to non-violent forms of protest, where probably the inability of the state to channel opposition demands leads away from non-violent methods toward violent ones. There are prescriptions in this result that might point to the way in which states – or international organizations – cater to the demands of the people in countries undergoing some of the rudimentary steps toward democratic governance. For instance ensuring a mechanism for opposition groups to protest what they see as failed policies of the state might circumvent some of the pressures for these groups to organize in armed opposition.

The distribution of resources within a country also appears to influence the likelihood of the mobilization of opposition groups, and at least at the level of observed protest, as resources are distributed more equally the likelihood of protest declines, quite dramatically. The relationship between the distribution of resources and rebellion and civil war is more difficult to discern from our analysis. Although the results suggest a

significant relationship between the GINI index and civil war onset, the missing values on the index are not distributed randomly, and we expect some unobserved, yet systematic, factors are contributing to those missing data.

Repression stands out as one mechanism that both appears to control low levels of disenchantment with state policies, yet fuels the mobilization of armed opposition to the state. Gurr's early work suggested a curvilinear relationship between repression and rebellion and to a large degree this is borne out by our analysis (1970). According to our results if a state engages in high levels of political repression then the likelihood of non-violent protest drops by nearly 70 percent over that of a similar state that does not repress. In effect, repression works to cut off protest activities, but this does not imply that repression is an effective tool of political control. In fact our results suggest that highly repressive states have a far greater probability of experiencing a civil war. We infer from this that repression might work with largely unorganized groups but that by repressing as state might be facilitating that organization, and as Gurr pointed out, may leave little choice but rebellion when repression is sufficiently brutal.

Two other elements of the contemporary debates about the onset of civil war and lesser forms of anti-state activities are addressed by our results. The first is the relationship between access to extractable resources and the ability of opposition groups to mobilize against the state. Much of the current debate suggests that access to resources facilitates the mobilization process, and in effect serve as a means to purchase rebel labor. Our results point to a different inference. Using diamonds, gemstones and opiates as our indicator of extractable resources, we find that they bear no relationship to the onset of civil war, that they are associated with a decreased probability of observing violent

rebellion, but that they increase the probability of observing protest movements by 38% over a state without such extractable resources. While we posited the opposite relationship than our data demonstrates, we speculate on why this may be so. Easily extractable and marketable resources that could be used to fund a rebellion need to be localized, valuable, and easily recoverable. This gravitates toward precious stones and illegal opiates. Precious stones, however, are frequently mined in industrialized countries that in general experience less rebellion than others. Our data, then, would pick up both an increased frequency of precious stone mines and a decreased propensity to rebellion and civil war. Conversely, these same countries might be more likely to experience and tolerate non-violent protest activities. But even rich industrial countries do not produce opiates as a matter of course, and therefore illegal opiate production would generally be relegated to the less developed part of the world, precisely those countries that would be less tolerant of protest and more likely to experience rebellion and/or civil war. We checked this against our data by disaggregating extractable resources into its three constituent parts, and we find that diamond production is strongly associated with a decreased probability of rebellion and civil war, but an increased likelihood of observing protest. Opiates are not significantly associated with either anti-government activity, and gemstones have a much more ambiguous relationship.⁵ This would suggest to us that the resource argument is not incorrect, but rather is much more nuanced than generally held.

Conclusion

The results of our analysis of the factors that lead to protest, rebellion, and civil war suggest that although there are many similarities in the underlying processes, there

⁵ These results are not presented in the text but can be obtained from the author.

are also significant differences. Regime type, for instance, appears to be non-linearly related to both protest and civil war, but the shape of the curve is inverted across the two outcomes. Likewise repression is one of our strongest predictors of protest, rebellion, and civil war, but that relationship, too, displays a different directional impact depending on the outcome. Repression will tend to decrease protest and rebellion, but increase civil war. This is consistent with arguments about the role of protection as one vehicle to overcome the collective action problem.

We also advance the notion that civil war is part of a complex process that probably starts at lower levels of anti-state activity, and if handled poorly at low levels might escalate to higher levels, including large scale and organized violence. That is, the etiology of civil war is rooted in grievances and responses by the state to demands that are not necessarily initially expressed in terms of organized armed rebellion.

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TABLE 1: Logit Analysis of Civil Conflict

	Model 1 (Protest Onset)	Model 2 (Rebellion onset)	Model 3 (Civil War)
Gini (mean)	.016(.004)***	.0002(.004)	-.052(.009)**
Gini (control)	-.522(.206)***	.82(.202)***	-.971(.407)**
Per Capita	-.039(.096)	-.104(.094)	.332(.132)**
Lag Repression	-.498(.067)***	-.188(.062)***	.935(.126)**
Extractables	.425(.140)***	-.549(.140)**	.336(.245)
Log Population	-.671(.056)***	.689(.056)***	.124(.072)*
Democracy	-.225(.051)***	.188(.051)***	.315(.081)**
Democracy²	.008(.002)***	-.007(.002)***	-.016(.004)**
ELF	-.016(.002)***	.014(.002)***	.006(.003)*
Constant	14.59(1.31)***	-13.7(1.29)***	-9.60(1.88)**
LL	-941.78	-919.00	-328.80
Chi²	393.66***	284.94***	234.12***
N	2019	2019	2019

*Note: Robust Standard errors in parenthesis. ***p>.01; *p>.10.*

Table 2: Predicted Probabilities – Protest

	Probability	% Change in Probability
Base Model	.19	—
Gini-low	.13	-16
Least Repressive	.63	+230
Access to Extractables	.18	+28
Population- low	.87	+357
Democracy-high (18)	.14	+26
Demcracy-low (1)	.35	+84
ELF – low (20)	.31	+63

Note: Base conditions reflect the following values: Gini is high (50), Repression is High (5), there is no access to extractables(0), Population is high (18), log per capita GDP is low (6) Democracy is in the middle (6), and ELF is High (60).

Table 3: Predicted Probabilities – Rebellion

	Probability	% Change in Probability
Base Model	.25	
Least Repressive	.41	+64
Access to Extractables	.16	-36
Population – low (15)	.04	-84
Democracy-high (18)	.29	+16
Democracy-low (1)	.14	-44
ELF-low (20)	.15	-40

Note: Base conditions reflect the following values: Gini is high(50), Repression is High (5), there is no access to extractables (0), Population is high (18), log per capita GDP is low (6) Democracy is in the middle (6), and ELF is High (60).

Table 4: Predicted Probabilities – Civil War

	Probability	% Change in Probability
Base Model	.15	
Gini- low (20)	.45	+200
Per Capita- high (9.5)	.36	+140
Least Repressive	.004	-99
Population – low (12)	.07	-53
Democracy-high (18)	.04	-73
Democracy-low (1)	.06	-60
ELF – Low (20)	.13	-13

NOTE: Base conditions reflect the following values: Gini is high(50), Repression is High (5), there is no access to extractables (0), Population is high (18), log per capita GDP is low (6) Democracy is in the middle (6), and ELF is High (60).