

Good neighbors, bad neighbors, and domestic disputes:
The effect of interstate relations on civil war, 1948—1992

Clayton L. Thyne
University of Iowa
Department of Political science
clayton-thyne@uiowa.edu

Abstract

Recent papers examining the onset of civil war have made tremendous gains in our understanding of the causes of domestic conflict. This paper seeks to extend this work by investigating the effect of interstate relations on civil war. In this paper, I argue that relations between states send signals to potential rebel organizations that affect their predicted probability of staging a successful rebellion. Hostile activity will embolden the potential rebel group, making civil war more likely. Friendly interstate relations, on the other hand, suggest that the sender is a potential ally for the government if a rebellion is attempted, which should lower the probability of rebellion. This theory is tested using COPDAB and WEIS events data from 1948 through 1992 along with variables for trade and military disputes to capture interstate interaction. These measures are added to existing models of civil war onset from Fearon and Laitin (2003) and Hegre et al. (2001). Results indicate the day-to-day interstate interactions indeed have a significant impact on the probability of civil war.

Paper prepared for the 2005 Illinois State University Conference for Students of Political Science.

I. INTRODUCTION

Conflict scholars have become increasingly interested in improving our understanding of civil war. This interest is not surprising given the terrible consequences of civil conflict. Civil wars have caused over 16.2 million deaths from 1945 through 1999 and have lasted over six years on average. These statistics stand in stark contrast to the negative effects of interstate wars (3.33 million deaths with an average duration of 3 months in the same time period), which have traditionally received far more attention in the conflict literature (Fearon and Laitin 2003, p. 75; Singer and Small 1994). In addition to physical injury, civil wars have been found to disrupt society by causing massive flights of refugees (Collier et al 2003, p. 18) and by interrupting social programs such as education (Lai and Thyne 2004).

Regarding economic indicators, a large literature supports the notion that civil wars have a devastating effect on a country's economy. In times of crisis, governments divert resources from social programs to military expenditures, creating what Russett (1964) calls a “guns for butter” effect.¹ Additionally, civil war has a negative impact on a country's infrastructure, as rebels work to disrupt the normal flow of economic goods (Bruck 2001; Canning 1998; Collier et. al. 2003). Third, wealth is often pushed abroad, as frightened residents try to protect their assets (Collier, Hoeffler and Patillo 2002). Finally, studies of economic indicators show that civil war tends to significantly slow economic growth (Collier 1999; Stewart, Huang and Wang 2001). The harmful economic and social effects of civil war show quite clearly why continued research explaining the onset of civil war is needed.

One important area of civil war research examines the effects of third parties on both the duration and outcomes of civil war. Scholars such as Balch-Lindsay and Enterline (2000), Regan (2002) and Collier, Hoeffler and Soderbom (2004) have made significant progress in our understanding of how third party intervention affects the duration of civil wars. Regan (2002), for example, finds that use of force by a third party intervener can lead to longer civil war. A similar line of research examines the role of third parties in affecting the outcomes of civil war. For example, Walter (2002) argues that third parties have an important role in ensuring the peace following a post-conflict settlement. While the previous authors focus on civil wars that have already begun, one area of civil war research that has received relatively little attention is the effect of third parties on the *onset* of civil war. The vast majority of the onset research, as we shall see in the next section, examines variables within the state such as economic inequality and state strength. Few scholars have attempted to discover how outside influences might affect the potential rebel's decision to rebel. Two notable exceptions provide a solid base on which to expand civil war research. Gleditsch (2003) provides one of the first tests of the international dimensions of civil war, finding that increased trade and regional democracies have a pacifying effect on the probability of civil wars while transborder groups and adjacent conflict increase the probability of civil wars. Gleditsch and Beardsley (2004) also provide sound evidence that interstate interactions affect civil conflict in their examination of three Central American civil wars. These authors use machine-coded events data to show that transnational third parties can alter levels of cooperation among domestic adversaries.

¹ Also see Collier et. al. 2003, p. 14; Raheem & Akinroye 2002; Adeola 1996; DeGrasse 1983.

This article seeks to advance this area of research by examining how interaction between states can affect the probability of civil war. The study is guided by the following questions: How might hostile relations between states affect domestic problems within a state? How might friendly relations between states enable a country at risk for civil war to ward off rebel attacks? Or possibly, do interstate interactions, whether friendly or hostile, make any difference in the probability of civil war onset? Briefly, I argue that both friendly and hostile dyadic relations between governments send signals to potential rebel organizations regarding their predicted probability of staging a successful rebellion. This argument is developed using Grossman's (1999) model of rebellion and a second model of civil war continuation offered by Mason and Quinn (2003). The theory is tested using events data to capture dyadic relationships from 1948 through 1992. Results show that interstate relations indeed have a significant impact on a rebel group's decision to stage a rebellion. Specifically, hostile relations between states can increase the probability of civil conflict while friendly relations have the opposite effect.

II. LITERATURE REVIEW

Over the past fifty years, social scientists have provided many logically-sound and empirically-supported theories to explain why civil wars occur. This body of research can be broken down into three main explanations for civil war, including socio-economic factors, political causes, and incentives to rebel.² The first category examines civil war as the result of social divisions in a state. Frye (1992, p. 607) provides an explanation of the primordialist view of civil conflict, explaining that ethnic groups satisfy an individual's primal need to belong to a group in an anarchic "Hobbesian" world. These divisions can lead to civil war, especially when a large ethnic minority is discriminated against (Connor 1994; Horowitz 1985). More recent work explains that these divisions are exacerbated in difficult economic times as one group suffers disproportionately from the poverty, which foments grievances that can lead to civil war (Russett 1964; Muller 1985). Further, Andersen (1983), Deutsche (1953) and Gellner (1983) explain that these situations are the most dangerous when there is a large minority that could potentially overthrow the majority.

Beyond the social and economic causes of civil war, a second body of literature examines the role of political causes of civil war. Gurr (1970) provides one of the earliest attempts to examine the relationship between the government and the people in explaining civil conflict. He argues that social discontent is a result of the discrepancy between the conditions in life that people inherently expect (value expectations) and the social conditions that limit what they are actually capable of achieving (value capabilities). This division, which Gurr calls "relative deprivation," is often blamed on the party in power and can provoke civil war. A plethora of scholars have extended Gurr's work by focusing on the roles of democratic versus authoritarian regimes in providing both adequate social conditions and peaceful means by which people can express discontent (for example see Krain and Myers 1997; Powell 1982; Muller and Weede 1990; Henderson and Singer 2000; and Hegre et al. 2001).

² The literature is broken down into three categories for the purpose of presenting a coherent literature review. One should note, however, that many of these arguments and variables cut across the main categories (i.e. do not fit exclusively in one category or another).

Recently, civil war scholars have moved beyond the traditional explanations for civil war. Arguing that the causes for civil war extend far beyond grievances, Hirshliefer (1995) explains that civil war is really an interaction of preferences, opportunities and perceptions. At this point, DeNardo (1985) and Grossman (1991, 1999) make a strong contribution to our understanding of civil wars by modeling civil conflict in a rational choice framework. These analyses shift the theoretical flow of civil war research by modeling rebels as rent-seeking entrepreneurs (i.e. greed driven) rather than as victims of a repressive state or ‘out group’ discrimination. Most recently, Collier and Hoeffler (2001) extend Grossman’s model with the claim that opportunity explains civil war better than grievances, which rebel leaders use as excuses for greed-driven rebellions. Collier and Hoeffler’s work is extended in part by Fearon and Laitin (2003) who focus on indicators of state strength to explain rebellion.

As we can see from this brief review, the literature explaining the onset of civil war is quite large. Considering the simultaneous growth of the globalization literature in international relations, it seems somewhat ironic that few have attempted to directly examine the effect of interstate interactions on intrastate conflict. The following section attempts to build on the civil war onset literature cited above by filling this gap.

III. THEORY

As I mentioned above, the most recent vein of literature examines the decisions of potential rebels in a rational choice framework. This study builds upon this tradition by working within an existing model of civil war onset as a framework for analysis. Mason and Quinn (2003) draw on previous work from Wittman (1979) and Mason and Fett (1996) to develop a model intended to capture a rebel group’s decision to sustain peace or take up arms. According to Mason and Quinn, the payoff to the rebel organization for resuming³ a conflict can be represented as follows:

$$EU_c = P_v(U_v) + (1 - P_v)(U_d) - \sum_{t_0}^{t_v} C_t$$

Where EU_c is the rebel’s expected utility of resuming the conflict, P_v is the probability of achieving victory, U_v is the expected payoff from victory, $(1 - P_v)$ is the probability of defeat, U_d is the payoff (costs) of defeat and C is the rate at which the costs of conflict will be absorbed from the time of conflict onset (t_0) to the future time of victory (t_v). For war to be rational, the expected utility of starting the conflict (EU_c) must be positive. Regarding the first two terms of the equation, we can see that the probability of rebellion should increase in the presence of any variables that either (1) raise the utility of post-conflict payoffs (U_v); (2) lower the costs of defeat (U_d) or (3) raise the probability of victory (P_v).

³ One should note that this model is originally meant to examine the rebels decision to take up arms following a lapse in fighting. Given Mason and Quinn’s (2003) argument that the majority of civil wars are a continuation of past fighting, it is reasonable to assume that this model works with the vast majority of instances of civil war onset.

Thus far, the literature has paid a great deal of attention to the second term (U_v = utility of post-conflict payoffs), which is commonly referred to as the “greed” argument. Collier and Hoeffler (2001), for example, focus on both the post-conflict payoffs and wealth gained during the war (i.e. looting and predation) in their model of greed-driven civil wars. Civil wars such as those in Colombia and Cambodia presented high payoffs for rebels due to the high availability of lootable resources (drugs in the former, timber in the latter). Though the greed-driven approach has been met with harsh criticism recently (Sambanis 2004; Ballentine and Sherman 2003), both the strength of the theoretical argument and consistently strong empirical results show that, despite its deficiencies, the presence of lootable resources indeed appears to have a strong effect on the probability of civil war onset. To this point, however, researchers have yet to adequately examine the first term (P_v = probability of rebel victory), which I take up in the remainder of this paper.

Fortunately, Grossman (1999, p. 273) has provided a framework for understanding the factors that may determine rebel victory (P_v). He models the probability of rebel victory with the following equation:

$$p = 1 - \frac{1}{1 + \theta I / S}, \theta \geq 0$$

Where I represents time allocated to the insurgency, S represents time allocated to soldiering and θ quantifies the expected effectiveness of insurgents relative to soldiers.⁴ The current realization of θ , Grossman explains, can reflect factors such as the current potential revolutionary’s skill in organizing a revolution, the government’s ability to suppress the revolution, and current foreign support for either the revolutionary leader or the incumbent ruler. A closer look at this term reveals that the effectiveness of rebel fighters depends primarily on state strength, which has been found to have a significant impact on the onset of civil war. Several scholars have attempted to capture this term in civil war models. For example, Hegre and his colleagues (2001) used the Polity dataset to capture repression, which should lower the rebel’s effectiveness to conquer the government (θ). They found an inverted U relationship between repression and the probability of rebellion, arguing that despite the existence of grievances, highly repressive societies experience few civil wars because the state is so efficient in thwarting any signs of rebellion. Fearon and Laitin (2003) examine factors of state strength such as large populations, mountainous terrain and institutional instability, which decrease the ability of the government to control the people. They find that factors decreasing a government’s ability to control the population indeed lead to a higher probability of rebellion.

Moving beyond state-level variables, a handful of scholars have included extra-state factors in their models of civil war onset. For instance, Collier and Hoeffler (2001) include

⁴ Note that the original equation presented by Grossman models p as the probability that a revolution fails. In order to remain consistent with Mason and Quinn’s argument (P_v = probability of rebel victory), I added a $1 -$ (original equation), which makes P_v capture the probability of rebel victory in both models.

immigrants living in the United States as a proxy for rebel finance from diasporas and a cold war dummy variable as a proxy for hostile governments. The current literature, however, has yet to fully develop the effect of third parties on the probability of civil war onset both theoretically and empirically.

In the remainder of this paper, I argue that third parties have a profound impact on the probability of civil war onset for two reasons. First, a friendly relationship between governments sends a signal to potential rebels that an attempted rebellion will likely fail as external states provide resources to bolster the government's current resources, which will aid in their ability to put down the rebellion (decrease θ). Second, hostile dyadic relations between states send the opposite signal to the rebels. If the government is preoccupied with external problems, this signals to the potential rebels that the time may be right to stage a rebellion because the government will be preoccupied with external problems. Further, hostile relations between the governments may give the rebels hopes that they will be aided by outside powers, which would increase θ . The remainder of this section develops this theory in greater detail.

Beginning with hostile relationships between governments, the existing literature on both low-level hostility (e.g. sanctions) and high level hostility (e.g. interstate war) provides some leverage on the subject. Tostensen and Bull (2002, p. 397) argue that while sanctions are meant to force the government to change its ways, they often have the effect of further depressing the lives of the people in the state. Drawing on the grievance theory of civil conflict typified by Gurr (1970), we might expect low-level hostile relations to exacerbate grievances due to this effect and, thus, increase the willingness for people to rebel. This argument is supported by Dorussen and Mo (2001), who argue that targets of sanctions comply quickly if there exists a high level of domestic opposition to the government because the government fears a rebellion. Additionally, Addison and Murshed (2003) present a model showing, in part, that low-level hostile relations, such as sanctions and rhetoric against the government, can weaken a state's social contract, which is a foremost cause of rebellion.

While low-level threats will not necessarily cause potential rebels to think that a foreign power will aid their rebellion, they likely send the signal that the foreign power, already being unhappy with the government, will stay neutral in the case of a civil war. The following excerpt from President Bush's (2005) recent State of the Union address provides a poignant example:

“We are working with European allies to make clear to the Iranian regime that it must give up its uranium enrichment program and any plutonium re-processing, and end its support for terror. And to the Iranian people, I say tonight: As you stand for your own liberty, America stands with you.”

According to this theory, we should expect even low-level hostilities from a third party to affect both the willingness and the opportunity to stage a rebellion. By adding the argument above to Grossman's (1999) model of the probability of rebel victory (P_v), we can see how the value of θ (insurgent capabilities relative to government capabilities) will increase in the face of third party hostility as government capability declines and rebel capability is enhanced. In Grossman's model, as θ increases the probability of rebel victory (P_v) increases, which results in a higher utility for staging a rebellion and leads to the first hypotheses:

H1: The more low-level hostile interstate activity received by a state (e.g. verbal threats), the more likely the state is to experience a civil war.

Similar to low-level hostilities, high-level acts of hostility have the effect of diverting a government's attention from internal threats to external threats, which lowers the opportunity costs of rebellion. This diverted attention likely causes a government to alter its priorities. For instance, in the face of a military threat from another state, it may redeploy troops to defend the border, which would lower the opportunity costs of rebellion by allowing more freedom to organize rebel groups. This notion was supported by Hegre et al. (2001), who found that involvement in an interstate war increases the probability of civil war onset in a country. Beyond diverting attention, high-level hostility might provide more direct aid to rebels in the form of arms or financing. The Renamo rebellion in Mozambique, which was aided greatly by the government of South Rhodesia, provides an example of such a case (Collier and Hoeffler 2001). Like low-level hostilities, we should expect high levels of interstate hostilities to increase the insurgent's capabilities relative to government capabilities (θ), which should lead to an increase the probability of civil war. This argument leads to the second hypothesis:

H2: The more high-level hostile interstate activity directed at a state (e.g. military action), the more likely the state is to experience a civil war.

While we might expect hostile relations to increase the probability of civil war, should we assume that friendly relations have the opposite effect? A handful of scholars in the civil war literature have touched on this idea. Sambanis (2001), for example, includes the average polity score of neighboring democracies in his model of civil war onset with the argument that democracies make 'good neighbors,' which might help a government ward off rebel attacks. Harff (2003) includes trade openness, which may be a reasonable proxy for friendly relations, in her model of geno-politicide, finding that increased trade indeed decreases the probability of geno-politicide. Finally, Collier (2000) makes the argument that the international community should increase aid to post-civil war countries in order to decrease the risk of renewed conflict. Given that the vast majority of civil wars are rooted in a prior civil war (Mason and Quinn 2003), we see how Collier's (2000) advice should lower the probability of a subsequent civil war. Additionally, returning to Addison and Murshed's (2003) argument that greed and grievances that drive rebellions are rooted in a state's weak social contract, we might expect friendly interstate relations, such as debt relief, to help a state rebuild its social contract in order to prevent rebellion.

While the above studies provide a useful foundation to examine how friendly interstate relations might affect internal problems, the theoretical and empirical emphasis of each study is on factors other than interstate interactions. Friendly relationships are generally mentioned as control variables and are not developed well theoretically. Fortunately, both the alliance and trade literatures provide some leverage on the subject. Beginning with the former, Leeds (2003) builds on work from Morrow (1994), Smith (1995, 1998) and Fearon (1997) in her argument that alliances reveal information about the likelihood that outside actors will intervene in a potential conflict. If state A makes a formal alliance with state B, this sends the signal to potential foes

within the state and outside the state that state A has a stake in the security of state B and will likely defend it if state B is attacked.

The literature on trade leads to a similar expectation. Russett and Oneal (2001) and Oneal, Russett and Berbaum (2003) provide tests of the Kantian peace argument in which increased trade should result in peaceful relations between states. By creating strong commercial ties, states invest themselves in the security of the other state and, thus, have a vested interest in maintaining the security of their trading partner. Gowa and Mansfield (1993) and Gowa (1994) provide the similar expectations from a realist viewpoint. In their argument, interstate trade leads to increased wealth of both states, which can be turned into military capability. The result is that trade leads to security problems for two (potential) adversaries and positive relations between allies. Thus, states have an incentive to manipulate their trade pattern by restricting commerce with enemies while promoting commerce with friends. Like the alliance ties, trade ties create a situation in which a third party has an interest in maintaining the security of the trading partner. While both the alliance and trade arguments pertain primarily to interstate wars, we might also suspect that these ties affect intrastate relations by revealing information to potential rebel groups. By creating an alliance or strong trade tie, state A has a vested interest in maintaining the security of state B. If state B becomes enveloped in domestic turmoil, then it is likely that state A will provide some level of support to state B to help them put down the rebellion. At the very least, we should expect state A to refrain from acts that might hurt state B's ability to put down the rebellion. Referring to Grossman's (1999) model of the probability of rebel victory (P_v), we see that both alliances and trade lower the rebel's predicted probability of staging a successful rebellion by decreasing insurgent's capabilities relative to those of the government (θ). This lowered expectation for victory leads to an overall lower expected utility of conflict (EU_c) of staging a rebellion, which leads to the third hypothesis:

H3: Formal friendly interstate interactions (e.g. trade and alliances) should decrease the probability of civil war.

Finally, we might expect that friendly relations between states go beyond formal alliance ties and trading partnerships. State officials are constantly sending signals to other states in the form of speeches, memos and official statements. The quote from President Bush above demonstrates this in the form of a hostile statement, but statements in support of a government might weigh just as heavily in the minds of a potential rebel group. The United States has issued many statements of support for countries that have expressed official support for the US in the war against terror. Moldova, for example, is listed by Belkin and Schoefer (2003) as one of the foremost countries at risk for a coup given the unstable Transnistrian separatist conflict in the country. The following joint statement by President Bush and Moldovan President Vladimir Voronin provides a clear example of friendly low-level interstate interactions:

“Finally, we reaffirm the importance of continued cooperation between the United States and Moldova in promoting regional security, including through our common efforts at combating the proliferation of weapons of mass destruction; transnational crime; and trafficking of persons. We will deepen our cooperation to combat international terrorist threats to world peace both in our own countries and

internationally. The United States appreciates Moldova's support in the global war on terrorism” (December 17, 2002).

Such a statement does not make any direct reference to potential rebel organizations. However, we might expect the potential for US support of the Moldovan government to weigh heavily on the minds of such groups. Similar statements are made across borders on a day-to-day basis, which likely have the effect of lowering a potential rebel group’s capabilities vis-à-vis the government capabilities (θ) and, thus, lowers the probability of civil war because it decreases the overall expected utility of taking up arms (EU_c). This argument leads to the final hypothesis:

H4: Low-level friendly interstate interactions (e.g. statements of friendship) should lead to a decreased probability of civil war.

The final step of this paper is to provide an empirical test of the above hypotheses. This is undertaken using conventional variables and data from past large N analyses of civil war onset. Additionally, I use events data to capture low-levels of hostility and cooperation, which to my knowledge has never been used in an empirical model of civil war onset. Thus, the following analysis potentially provides an important and innovative development in civil war research.

IV. DATA, MEASUREMENT AND MODELS

Over the last several years, scholars have experimented with a large range of variables to predict the onset of civil war. In fact, Hegre and Sambanis (2005) identify ninety-three variables that have been used to make these predictions. Given that the goal of this paper is to examine the effects of interstate relations on civil war rather than to provide a comprehensive explanation for civil war itself, it makes sense to test the hypotheses by adding my primary variables (explained below) into existing models of civil war onset. Two recent studies on civil war provide excellent models as a baseline to which I will add my variables. These include Fearon and Laitin (2003) and Hegre et al. (2001), who approach their analysis of civil war onset with similar variables and different methods. The former study sets up a traditional model of civil war onset using logistic regression from 1945 through 1999. In contrast, the second model uses a Cox duration model to examine the factors leading to the onset of civil war from 1816 through 1992.⁵ Given that these two methods are meant to capture the same concept (civil war onset), we should expect the proxies for interstate interactions to behave in the predicted manner even though the authors use different approaches. Adding the variables for interstate interactions to existing models not only avoids needless work in developing a new model, but also sets the bar high for proving the hypotheses given that the base models are well-accepted in the literature and employ different variables and methods.

Dependent variable

⁵ See Box-Steffensmeier and Jones (1997) for an excellent description of duration models, including the Cox duration model.

Cases for this analysis include all countries in the world from 1948 to 1992. These years coincide with data availability years for the primary independent variables. The dependent variable, *civil war onset*, is coded one (1) for each country-year in which a civil war began and zero (0) otherwise. Fearon and Laitin (2003) and Hegre et al. (2001) use similar definitions of onset. Fearon and Laitin define civil war based on three criteria, including (1) the war involved fighting between agents (or claimants to) a state and organized, non-state groups who sought either to take control of a government, to take power in a region, or to use violence to change government policies; (2) the conflict killed at least 1000 over its course, with a yearly average of at least 100 and (3) at least 100 were killed on both sides (including civilians attacked by rebels). This variable includes eighty-nine cases of civil war onset from 1948 through 1992. Hegre and his colleagues (2001) use a similar definition from the Correlates of War (COW) dataset who define civil war as an internal war in which: “(a) military action was involved, (b) the national government at the time was actively involved, (c) effective resistance (as measured by the ratio of fatalities of the weaker to the stronger forces) occurred on both sides and (d) at least 1,000 battle deaths resulted” (Singer and Small 1994, part 3). This variable includes sixty-seven cases of civil war onset from 1948 through 1992.

Independent variables

To operationalize the key independent variables, daily levels of *conflict and cooperation*, I rely on two events data sets commonly used by international relations scholars. The first dataset is the Conflict and Peace Data Bank (COPDAB), which spans from 1948 through 1978 and includes over 20 thousand dyadic events for 135 states (Azar 1980). Azar and his colleagues coded newsworthy intrastate and interstate interactions into eight categories that are ranked on a conflict/cooperation continuum. For instance, if the US threatened sanctions to Colombia, Azar and his colleagues would code the day, month and year of the event along with a code for “threatened sanctions,” which corresponds to a number indicating that it is a conflictual event. The original events are placed on a scale ranging from 0 (most cooperative) to 15 (most conflictual). I recoded this scale using the intensity scale provided in the COPDAB codebook in order to capture the level of intensity between the ordinal values, which results in a measure ranging from -92 (most conflictual) to +102 (most cooperative).

A similar dataset, the World Events Interaction Survey (WEIS) was started by Charles McClelland (1978). WEIS codes events into more specific categories than COPDAB (63 categories) and spans from 1966 through 1992. Scholars have found WEIS most useful when the original nominal categories are recoded into a conflict/cooperation continuum. For this analysis, I use Goldstein’s (1992) weighting scheme, which places the nominal WEIS codes on a conflict/cooperation continuum ranging from -10 (most conflictual) to +8.3 (most cooperative).⁶ Because the scale for COPDAB uses larger values than the scale for WEIS (-92 to +102 for COPDAB and -10 to +8.3 for WEIS), I follow Reuveny and Kang (1996, p. 299) by splicing the two datasets in the overlapping periods (1966—1978) with the following formula:

$$\text{WEIS}_t = C_0 + C_1 * \text{COPDAB}_t + e_t$$

⁶ See Reuveny and Kang (1996) or Howell (1983) for a more thorough explanation of the COPDAB and WEIS datasets.

After splicing the dyadic measure, I then aggregate the data yearly, which results in a mean yearly level of conflict/cooperation between all dyads in the world.⁷ For example, if the US had two events directed towards Cuba in 1980, one hostile (-2) and the other friendly (+4), it would receive a mean score of +1 for the dyad. This score would be averaged with Cuba's other politically relevant dyads (major powers in this case) to come up with a single value of events directed towards Cuba. Given that the vast majority of dyads have few (if any) interactions in a given year, I further reduce the data to interactions between politically relevant dyads, which consist of all contiguous states and major powers. This aggregation allows me to delete obscure dyads, such as Guatemala/Pakistan, from the dataset while including relevant dyads, such as United States/Singapore, which have many interactions due to the expansive foreign policy of the United States. After collapsing the data by target/year, the result is a single yearly value ranging from -10 (most conflictual) to +8.3 (most cooperative) for events received by each state from politically relevant dyads from 1948 through 1992. This measure provides a reasonably accurate account of both high-level and low-level events that should, according to my theory, affect a potential rebel group's decision to rebel.

In addition to the events data, I also include two more well-known variables as proxies for conflict and cooperation. The first, *trade*, is a form of interstate cooperation that might affect domestic politics. I expect higher levels of trade to have a negative impact on a potential rebel organization's probability of winning the war (P_v) because it lowers rebel capabilities compared to those of the government (θ). The result is a predicted decrease the probability of civil war onset. This argument is supported by Gleditsch (2002) who finds that greater levels of trade integration between states in a region decrease the likelihood of civil conflict. Trade data are taken from Barbieri's (2002) International Trade Data, Version 1.1, which is a monadic measure of total trade for each country-year in the dataset.

In contrast to the friendly trade variable, I also include a measure of hostility using the Correlates of War (COW) *Militarized Interstate Disputes* (MID) dataset (Jones, Bremer & Singer 1996). As explained above, hostile behavior directed towards a state should increase the potential rebel group's perceived probability of winning a civil war (P_v) because it both distracts the government and provides a potential ally for the rebel organization. I include a dummy variable for any level of MID received by a state (target) to capture such hostile relations. Hegre and his colleagues (2001) found this variable to significantly increase the probability of civil war onset in a previous study. I also expect hostile interstate relations to increase the probability of civil war onset.

The effect of the control variables explained above on civil war potentially suffers from problems with endogeneity. If a country experiences a civil war in the same year that it experiences an interstate war, for instance, the interstate war may be a result of the civil war as external actors feel that the time is ripe for an invasion because the state is preoccupied with internal problems. Similarly, hostile relations received from external governments may be due to the external state's reactions to the civil war itself. Therefore, I lag each of the independent

⁷ Though smaller aggregation periods would be more ideal for this analysis, the other covariates in the model are available only in yearly aggregations, which forces me to aggregate these data on a yearly basis as well.

variables to assure that the causal arrow flows in the predicted direction (i.e. these variables affect the probability of civil war rather than being a result of the civil war itself).

Control variables

Both Fearon and Laitin (2003) and Hegre et al. (2001) include a handful of control variables in their model based largely on the theories explained in the literature review section of this paper. Due to space constraints, the following paragraphs will simply introduce the variables. The reader is encouraged to review the original papers for a more thorough explanation of these variables.

Given the theoretical similarities in the arguments, it is unsurprising that the variables used by Fearon and Laitin (2003) are very similar to those used by Hegre and his colleagues (2001). Beginning with the former, the first variable, *prior war*, is a dummy variable indicating whether a country had a distinct civil war ongoing in the previous year in order to control for possible temporal dependence between observations. The second, *per capita income*, tests the argument that the higher the level of income in a society, the less reason there is for people to rebel (Gurr 1970). The next three measures, *population*, *mountainous terrain*, and *noncontiguous state* are included as proxies for state strength. The sixth variable, *oil exporter*, is a dummy variable for all country-years in which fuel exports exceeded one-third of export revenues. This tests the argument that oil producers tend to have weak state apparatuses. The next two variables, *new state* and *instability*, capture possibly weakness and disorganization in states that have recently become independent or have undergone major transitions. The ninth and tenth variables, *ethnic fractionalization* and *religious fractionalization*, capture the notion that civil wars are more frequent in heavily heterogeneous societies. The final two variables, *anocracy* and *democracy*, test whether regime type helps explain the probability of civil war onset.

Hegre and his colleagues (2001) include several variables similar to those explained above, including *democracy* and *democracy squared* (Polity III index), *proximity of a civil war*, *proximity of independence*, *ethnic heterogeneity*, *development* (energy consumption per capita) and *development squared*. These authors also include measures for *international war* in the country and *neighboring civil war*, which are not included in Fearon and Laitin's (2003) model. As I explained above, adding the variables for interstate interactions into these models should provide a reasonable test indicating whether interstate events have any effect on civil war compared to variables that are well established in the civil war onset literature. The next step in this paper is to move to the analysis of the data.

V. ANALYSIS OF RESULTS

Both Fearon and Laitin (2003) and Hegre et al.'s (2001) model cover a larger time period and include a handful of country-years that are not included in the primary variables. Therefore, I present three models for each study. The first model is the exact replication from both papers for the model indicated at the bottom of each table, which I consider to be the foremost model of

each study based on the arguments made in the papers. The second model replicates the first, but limits it to the years of the primary variables (1948 through 1992). This assures that any changes in the original variables are due to the inclusion of new variables in the model, rather than just the deletion of country-years of the original models. The third model introduces the variables for interstate interaction, which are the primary focus of this study.

The first hypothesis predicts that low levels of hostility should lead to a greater probability of civil war. In contrast, the fourth hypothesis predicts that low levels of friendly interactions should lead to a lower probability of civil war. Both of these hypotheses are tested with the COPDAB/WEIS spliced events data (mean event received), which captures both friendly and hostile interactions on the same continuous measure. Beginning with model 3 in table 1, we see that this variable is negative and significant, which indicates that higher values of this measure (more cooperative events) leads to a lower probability of civil war onset.

Table 1 about here

Moving to the model presented by Hegre and his colleagues (2001), we also see that the mean level of conflict/cooperation received has a significant pacifying effect on the probability of civil war onset. Thus, the results from both tables provide strong support for the notion that cooperative events received lead to a lower probability of civil war (H1) while hostile events received lead to a greater probability of civil war (H4).⁸

Table 2 about here

The second hypothesis predicts that high levels of hostilities, such as military intervention or full-scale war, should lead to a greater probability of civil war. This hypothesis is tested by including a dummy variable for any MID received in each country year. As we can see in model 3 in tables 1 and 2, the coefficient for MID is positive, indicating that interstate hostilities raise the probability of civil war in a state. However, this variable is insignificant at the $p < .05$ level, which does not allow me to reject the null hypothesis that interstate conflict has no effect on the probability of civil war onset. The diversionary literature is helpful in explaining this finding. According to theories first presented by Simmel (1955) and Coser (1956), confrontations with an external state (out-group) will build cohesion within the state (in-group). Even though there may be sufficient cause to overthrow the government, the external threat may cause the in-group to see its problems as unimportant when compared to the out-group's external threat. Therefore, it is possible that civil war will be less likely in states facing an external threat as the people group together to survive the challenge.

The third hypothesis predicts that formal friendly relations, such as trade ties, should lead to a lower probability of civil war in a state. Yearly trade received from all politically relevant dyads for each country-year is used as a proxy to capture these formal friendly relations.

⁸ These hypotheses were also tested with dummy variables for cooperative (interstate relations received > 0) and conflictual (interstate relations received < 0) events received for each country-year. The results for these analyses are not reported because the results for the dummies are substantively identical to those using the continuous measure.

Referring back to model 3 of the first table, we see that there is no support for the third hypothesis. This variable is also insignificant in Hegre et al.'s model, leading to the conclusion that high levels of trade seem to have no significant impact on the probability of civil war in a country. This finding may be a bit disconcerting to interdependence theorists. However, Crescenzi's (2003) analysis of the relationship between trade and interstate war provides a likely explanation for the null finding. According to Crescenzi, basic indicators of trade are poor proxies for interdependence because they do not indicate how easily a state can move from one trading partner to the next if necessary. For example, the fact that the US trades heavily with Mexico does not necessarily mean that the US is heavily dependent on Mexico if we could easily shift trading patterns to another state in the event that Mexico experienced major domestic problems. A better measure, according to Crescenzi, would capture exit costs (costs of ending a trade relationship and moving to an alternative) to assess interdependence. Unfortunately, such a measure is not readily accessible at this time, which leaves the question of the effects of trade on civil war for future research.

Moving to the control variables, there appears to be little new or surprising in this analysis. In the first table (Fearon and Laitin), the coefficients for population and oil exporter increase the probability of civil war, which coincides with the original findings from Fearon and Laitin. The negative coefficient for income per capita indicates a lower probability of civil war in wealthy countries, which was also predicted by the authors. Contrary to Fearon and Laitin's original model, however, the coefficient for new state drops from significance, though it remains positive. Regarding the second table (Hegre et al.), the coefficients for proximity of regime change, proximity of a civil war and ethnic heterogeneity continue to be positive and all three models, indicating that each variable increases the probability of civil war onset. Likewise, the negative coefficients for democracy squared and development are negative and significant in all three model, indicating a decrease in the probability of civil war. Most importantly, the control variables remain quite consistent through all three model in each table, indicating that the results for the interstate interactions are not a result of inconsistencies and unexpected interactions due to the addition of the interstate variables in the model.

VI. CONCLUSION

The purpose of this paper was to examine the effect of interstate action on intrastate problems. A review of the civil war literature shows that IR scholars have greatly improved our understanding of the causes of civil war. Most of the empirical literature, however, tends to focus on the expected benefits of winning a civil war or possible benefits accrued during the fighting (greed argument). Several important papers, such as Fearon and Laitin (2003), have focused on the probability of a successful rebellion by examining a government's ability to control the population. This paper attempted to extend this work by examining how interstate interactions might affect a potential rebel group's predicted probability of staging a successful rebellion.

The hypothesized effect of interstate interactions was based on a two-part theory, which was drawn from a model presented by Mason and Quinn (2003) and an operationalization of the probability of rebel victory (P_v) from Grossman (1999). In the first part, I drew on the sanctions

literature and the interstate war literature to argue that hostile interstate interactions send a signal to potential rebel groups that they are more likely to succeed in their attempt to overthrow the government. This is because the external actor offers the potential for outside help against the state or at least assurance that no external actor will intervene on behalf of the government. The second half of the theory examined the effect of friendly interstate interactions by drawing on the alliance and trade literature. I argued that friendly dyadic relations send a signal to a potential rebel organization that they are likely to face harsh opposition from both the government and third parties who might intervene on behalf of the government. Both arguments are based on the effect that third parties have on a potential rebel group's capabilities compared to those of the government (θ), which in turn affects the overall utility of staging a rebellion (EU_c).

These hypothesized effects were examined using indicators of trade and interstate conflict, which are common in models of civil war onset. Additionally, I included events data from the COPDAB and WEIS datasets in the analysis to capture low-levels of friendly and hostile interactions that are likely not picked up with more common variables. These measures were tested by including the interstate variables in two well-known models of civil war onset from Fearon and Laitin (2003) and Hegre et al. (2001). The results indicated that trade and militarized interstate conflict do not have a significant impact on the probability of civil war onset. The low-level interstate interaction variable, however, showed a strong impact on civil war onset. As predicted by my theory, higher levels of daily cooperation received from external states have a strong pacifying effect on intrastate conflict while high levels of daily hostility received have the opposite effect.

Several important implications can be drawn from this study. First, this analysis has shown that even low levels of conflict and cooperation, such as statements of support and threats against a government, have an important impact on a potential rebel group's decision to rebel. Thus, statements such as President Bush's speech condemning the government of Iran likely have an important impact on the decision-making calculus of potential rebel groups in the country. Statements of support, on the other hand, can help a fledgling country like Moldova ward off rebel attacks. Second, current research on civil war has made tremendous gains in discovering the impact of factors within a state on the probability of civil war. This study has shown that the research should move beyond intrastate variables to examine the impact of external factors. Finally, to my knowledge the inclusion of events data in this study has never been attempted in previous civil war models. The significant and consistent findings presented in this paper show that these datasets, as well as newer events datasets such as the machine-coded IDEA dataset (Bond et al., 1997), provide useful tools for future analyses of civil war.

Works Cited

- Addison and Murshed (2002). Credibility and reputation in peacemaking. *Journal of Peace Resolution*, 39(4): 487-501.
- Adeola, Francis (1996). Military Expenditures, Health, and Education: Bedfellows or Antagonists in Third World Development? *Armed Forces & Society*, 22(3).
- Anderson, Benedict (1983). *Imagined communities*. London: Verso.
- Azar, Edward E. (1980). The conflict and peace data bank (COPDAB) project. *Journal of Conflict Resolution*, 24(1): 143-152.
- Ballentine, K. and J. Sherman, eds. (2003). *The political economy of armed conflict: Beyond greed and grievance*. Boulder: Lynne Rienner.
- Balch-Lindsay and Enterline (2000). Killing time: The world politics of civil war duration, 1820-1992. *International Studies Quarterly*, 44: 615-642.
- Barbieri, Katherine. 2002. *The Liberal Illusion: Does Trade Promote Peace?* Ann Arbor, MI: University of Michigan Press.
- Beck N., Katz, J.N. and R. Tucker (1998). Taking Time Seriously in Binary Time-Series--Cross-Section Analysis. *American Journal of Political Science*, 42(4):1260-1288.
- Belkin, Aaron and Evan Schofer (2003). Toward a structural understanding of coup risk. *Journal of Conflict Resolution*, 47(5): 594-620.
- Bond, Doug, J. Craig Jenkins, Charles L. Taylor and Kurt Schock (1997). Mapping Mass Political Conflict and Civil Society: The Automated Development of Event Data. *Journal of Conflict Resolution*, 41(4): 553-579.
- Box-Steffensmeier and Jones (1997). Time is of the essence: Event history models in Political Science. *American Journal of Political Science*, 41(4): 1414-1461.
- Bruck, Tillman (2001). "Mozambique: The economic effects of war" in Steward, F. et al., (Eds.). *War and underdevelopment, Vol 2*. Oxford, UK: Oxford University Press.
- Canning, David (1998). A database of world stocks of infrastructure, 1950-98. *World Bank Economic Review*, 12(3): 529-47.
- Collier, Paul (1999). *The Economic Consequences of Civil War*. Oxford Economic Papers, 51, pp. 168-183.
- Collier, Paul (2000). *Economic Causes of Civil Conflict and Their Implications for Policy*. World Bank Development Research Group, June 15, 2000.

- Collier, Paul and Anke Hoeffler (2001). *Greed and grievance in civil war*. World Bank. Available online: <http://econ.worldbank.org/programs/library>
- Collier, Paul, A. Hoeffler and C. Patillo (2002). *Africa's exodus: Capital flight and the brain drain as portfolio decisions*. World Bank, Washington, D.C.
- Collier, Paul, Lani Elliott, Havard Hegre, Anke Hoeffler, Marta Reynal-Querol and Nicholas Sambanis (2003). *Breaking the conflict trap: Civil war and development policy*. The International Bank for Reconstruction and Development/The World Bank.
- Collier, Paul, Anke Hoeffler and Mans Soderbom (2004). On the duration of civil war. *Journal of Peace Research*, 41(3): 253-273.
- Conner, Walker (1994). *Ethnonationalism: The quest for understanding*. Princeton: Princeton University Press.
- Coser, Lewis (1956). *The Functions of Social Conflict*. Glencoe, IL: Free Press.
- Crescenzi, Mark (2003). Economic Exit, Interdependence, and Conflict: An Empirical Analysis. *The Journal of Politics*, 65(3).
- DeGrasse, R.W. (1983). *Military Expansion and Economic Decline: The Impact of Military Spending on U.S. Economic Performance*. New York: M.E. Sharpe, Inc.
- DeNardo, James (1985). *Power in numbers*. Princeton, JF: Princeton University Press.
- Deutsche, Karl W. (1953). *Nationalism and social communication*. Cambridge, MA: MIT Press.
- Dorussen and Mo (2001). Ending economic sanction: Audience costs and rent seeking as commitment strategies. *Journal of Conflict Resolution*, 45(4).
- Elbadawi, Ibrahim and Nicholas Sambanis (2002). How much war will we see? Explaining the prevalence of civil war. *Journal of Conflict Resolution*, 46(3): 307-334.
- Fearon, James D. (1997). Signaling foreign policy interests: Typing hands versus sinking costs. *Journal of Conflict Resolution*, 38(2): 236-69.
- Fearon, James D. and David D. Laitin (2003). Ethnicity, insurgency, and civil war. *American Political Science Review*, 97(1): 75-90.
- Frye, T. (1992). Ethnicity, sovereignty and transitions from non-democratic rule. *Journal of International Affairs*, 45(2).
- Gellner, Ernest (1983). *Nations and nationalism*. Ithaca, NY: Cornell University Press.

- Gleditsch, Kristian Skrede (2002). *All Politics is Local: The Diffusion of Conflict, Integration, and Democratization*. Ann Arbor, MI: University of Michigan Press.
- Gleditsch, Kristian Skrede (2003). *Transnational dimensions of civil war*. Manuscript, Department of Political Science, University of California, San Diego.
- Gleditsch, Kristian Skrede and Kyle Beardsley (2004). Nosy neighbors: Third-party actors in Central American conflicts. *Journal of Conflict Resolution*, 48(3): 379-402.
- Goldstein, Joshua S. (1992). A Conflict-Cooperation Scale for WEIS International Events Data. *Journal of Conflict Resolution*, 36(2): 369-385.
- Gowa, Joanne (1994). *Allies, Adversaries, and International Trade*. Princeton, N.J.: Princeton University Press.
- Gowa, Joanne, and Edward D. Mansfield (1993). Power Politics and International Trade. *American Political Science Review*, 87(2): 408-420.
- Grossman, H.I. (1991). A general equilibrium model of insurrections. *American Economic Review*, 81: 912-21.
- Grossman, H.I. (1999). Kleptocracy and revolutions. *Oxford Economic Papers*, 51: 267-283.
- Gurr, Ted R. (1970). *Why men rebel*. Princeton, NJ: Princeton University Press.
- Harff, Barbara (2003). No lessons learned from the holocaust? Assessing risks of genocide & political mass murder since 1955. *American Political Science Review*, 97(1).
- Hegre, Havard and Ellingsen, Gates and Gleditsch (2001). Toward a democratic civil peace? Democracy, political change, and civil war, 1816-1992. *American Political Science Review*, 95(1): 15.
- Hegre, Havard and Nicholas Sambanis (2005). *Sensitivity analysis of the empirical literature on civil war onset*. Paper for the 13th Norwegian National Conference in Political Science, Hurdalsjoen, Norway, January 5-7, 2005.
- Henderson, E. and J. D. Singer (2000). Civil war in the post-colonial world, 1946-92. *Journal of Peace Research*, 37(3): 275-299.
- Hirshleifer, J. (1995). "Theorizing about conflict," in *Handbook of Defense Economics, Vol. 1*, ed. K. Hartley and T. Sandler, 165-89, Amsterdam, Elsevier Science.
- Horowitz, D. (1985). *Ethnic groups in conflict*. Berkeley: University of California Press.

- Howell, Llewellyn (1983). A comparative study of the WEIS and COPDAB data sets. *International Studies Quarterly*, 27(2): 149-159.
- Jones, Daniel, Stuart Bremer and J. David Singer (1996). Militarized Interstate Disputes, 1816-1992: Rationale, Coding Rules, and Empirical Patterns. *Conflict Management and Peace Science*, 15(2): 163-213.
- Krain, M. and M. Edson-Myers (1997). Democracy and civil war: A note on the democratic peace proposition. *International Interactions*, 23: 109-118.
- Lai, Brian and Clayton Thyne (2004). *Reexamining old assumptions: The effect of civil war on education, 1980-2002*. Unpublished manuscript.
- Leeds, Brett A. (2003). Do alliances deter aggression? The influence of military alliances on the initiation of MIDs. *American Journal of Political Science*, 47(3): 427-439.
- Mason, David and Andrew Enterline (2003). *Agreeing to Peace(keeping): Modeling Civil War Combatant and Third Party Decisions to Support Intervention by UN Peacekeepers*. Paper prepared for presentation at the annual meetings of the American Political Science Association, Philadelphia, PA, August 2003.
- Mason, T. David & Patrick J. Fett (1996). How Civil Wars End: A Rational Choice Approach. *Journal of Conflict Resolution*, 40(4): 546-568.
- Mason, David and Jason Quinn (2003). *Sustaining the Peace: Determinants of Civil War Recurrence*. Paper prepared for presentation at the annual meetings of the American Political Science Association, Philadelphia, PA, August 2003.
- McClelland, Charles (1978). *World Event Interaction Survey*. [Computer file]. Los Angeles, CA: University of Southern California.
- Morrow, James D. (1994). Alliances, credibility and peacetime costs. *Journal of Conflict Resolution*, 38(2): 270-97.
- Muller, Edward N. (1985). Income inequality, regime repressiveness, and political violence. *American Sociological Review*, 50: 47-61.
- Muller, Edward and E. Weede (1990). Cross-national variation in political violence: A rational actor approach. *Journal of Conflict Resolution*, 34: 624-51.
- Oneal, Russett and Berbaum (2003). Causes of peace: Democracy, interdependence, and international organization, 1885-1992. *International Studies Quarterly*, 47.
- Powell, G. B. (1982). *Contemporary democracies: Participation, stability, and violence*. Cambridge, MA: Harvard University Press.

- Raheem, Kolawole T. and Kingsley K. Akinroye (2002). "Warfare and health: The case of West Africa," in Taipale, Ilkka (Ed.) *War or Health? A Reader*. London: Zed Books: 240-248.
- Regan, Patrick (2002). Third-party interventions and the duration of intrastate conflicts. *Journal of Conflict Resolution*, 46(1): 55-.
- Reuveny, Rafael and Heejoon Kang (1996). International conflict and cooperation: Splicing COPDAB and WEIS series. *International Studies Quarterly*, 40(2): 281-305.
- Russett, Bruce M. (1964). Inequality and instability: The relation of land tenure to politics. *World Politics*, 16: 442-54.
- Russett, Bruce and John Oneal (2001). *Triangulating peace: Democracy, interdependence, and international organizations*. New York: W. W. Norton & Company, Inc.
- Sambanis, Nicholas (2001). Do Ethnic and Non-Ethnic Civil Wars Have the Same Causes? A Theoretical and Empirical Inquiry. *Journal of Conflict Resolution*, 45 (3): 259-82.
- Sambanis, Nicholas (2004). Expanding Economic Models of Civil War Using Case Studies. *Perspectives on Politics*, 2(2): 259-279.
- Simmel, Georg (1955). *Conflict and the Web of Affiliation*. translated by Wolff, Kurt. H. and Reinhard Bendix. The Free Press: New York.
- Singer, David, and Melvin Small (1994). *Correlates of War Project: International and Civil War Data, 1816-1992*. Computer File. ADDRESS: CISER. Access Year, 2004.
- Smith, Alastair (1995). Alliance formation and war. *International Studies Quarterly*, 39(4): 405-25.
- Smith, Alastair (1998). Extended deterrence and alliance formation. *International Interactions*, 24(4): 315-43.
- Stewart, F., C. Huang, and M. Wang. 2001. *Internal Wars in Developing Countries: An Empirical Overview of Economic and Social Consequences*. In F. Stewart, V. Fitzgerald, and associates, eds., *War and Underdevelopment, vol. 1*. Oxford, U.K.: Oxford University Press.
- Tostensen and Bull (2002). Are smart sanctions feasible? *World Politics*, 54.
- Tucker, Richard (1999). *BTSCS: A Binary Time-Series/Cross-Section Data Analysis Utility*. Version 4.0.4. Cambridge, MA: Harvard University.
<http://www.fas.harvard.edu/~rtucker/programs/btscs/btscs.html>
- Walter, Barbara (2002). *Committing to peace: The successful settlement of civil wars*. Princeton, NJ: Princeton University Press.

Wittman, Donald (1979). How a War Ends: A Rational Model Approach, *Journal of Conflict Resolution*, 23(4): 743-763.

Table 1. Interstate interactions added to Fearon and Laitin's (2003) model

	Model 1 F&L original	Model 2 F&L 1948-92	Model 3 Interstate events
Mean event received ^a			-.145* (.071)
MID received ^a			.150 (.304)
Total trade ^a			<.001 (<.001)
Prior war	-.916** (.312)	-.699* (.339)	-.735* (.347)
Per capita income ^{a, b}	-.318*** (.071)	-.291*** (.075)	-.312*** (.093)
Log(population) ^{a, b}	.272*** (.074)	.274*** (.080)	.284** (.091)
Log(% mountainous)	.199* (.085)	.225* (.094)	.187† (.102)
Noncontiguous state	.426 (.272)	.226 (.304)	.136 (.337)
Oil exporter	.751** (.278)	.882** (.304)	.748* (.325)
New state	1.658*** (.342)	1.787*** (.361)	.946 (.762)
Instability ^a	.513* (.242)	.401 (.276)	.436 (.286)
Ethnic fractionalization	.164 (.368)	.060 (.400)	.352 (.437)
Religious fractionalization	.326 (.506)	.085 (.555)	-.011 (.610)
Anocracy ^a	.521* (.237)	.545* (.262)	.484† (.285)
Democracy ^{a, c}	.127 (.304)	.229 (.334)	.348 (.354)
Constant	-7.019*** (.751)	-7.017*** (.815)	-6.969*** (.926)
Observations	6327	5232	5029
LR chi2	119.77***	93.03***	67.31***

Note: Standard errors are in parentheses. ***p<.001; **p<.01; *p<.05; †p<.10 (two tailed). Models are from Fearon and Laitin (2003, p. 84) Table 1, model 3.

^aLagged one year; ^bIn 1000's; ^cDichotomous

Table 2. Interstate interactions added to Hegre et al's (2001) model

	Model 1 Hegre original	Model 2 Hegre, 1948-92	Model 3 Interstate events
Mean event received ^a			-.202* (.087)
MID received ^a			.456 (.340)
Total trade ^a			<.001 (<.001)
Proximity of regime change	1.27** (.467)	1.36** (.466)	1.40** (.457)
Democracy	-.002 (.021)	-.0003 (.021)	-.006 (.025)
Democracy squared	-.012* (.005)	-.012* (.005)	-.015** (.005)
Proximity of civil war	1.16*** (.352)	1.14*** (.360)	1.24*** (.373)
Proximity of independence	1.51 (.973)	1.76 (1.22)	2.30 (2.21)
International war in country	.858 (.594)	.874 (.592)	b
Neighboring civil war	.097 (.330)	.046 (.341)	-.108 (.363)
Development	-.481** (.155)	-.478** (.162)	-.519** (.178)
Development squared	-.066 [†] (.036)	-.069 [†] (.038)	-.065 (.041)
Ethnic heterogeneity	.800* (.385)	.832* (.402)	1.12* (.415)
Log-likelihood	-254.76	-245.37	-223.24
Number of countries	152	146	135
Number of events	63	61	57
Observations	8262	7887	7513

Note: Standard errors are in parentheses. ***p<.001; **p<.01; *p<.05; †p<.10 (two tailed).

Models are from Hegre et al. (2001, p. 39) Table 2, model A.

^aLagged one year; ^bThis variable was dropped due to collinearity with MID variable.