Same or Different?
Comparing the Context of Non-State and State-Based Internal Fighting

Sophia Benz, PhD candidate
IR and Peace and Conflict Research Cluster
Institute of Political Science, Tübingen University
sophia.benz@gmail.com
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Abstract

This paper is part of a larger PhD research project which compares the incidence, the context and the nature of non-conventional (non-state) internal armed conflicts with that of conventional (state-based) internal fighting. The concept of “New Wars” serves as the theoretical basis of this comparison. I introduce and refine the concept before presenting recently published data sets that explicitly measure the incidence and significance, the context and the dimensions of non-state internal fighting. I then try to uncover in how far the identified cases of non-state internal fighting are consistent with the multidimensional concept of New Wars, i.e. whether this kind of internal fighting significantly differs from state-based internal fighting not only in terms of the political status of the involved actors but also in terms of their numbers, in the intensity or duration of fighting. I also study whether non-state fighting occurs in significantly more fragile states where certain conflict resources are produced more often and whether those actors, who engage in this kind of internal fighting are more likely to commit acts of one-sided violence against unarmed civilians. Finally, I study whether the incidence and the significance of non-state internal fighting are indeed increasing. The empirical part of the larger research project starts with a descriptive analysis of the latter question before presenting the results of a cross-sectional (but only bivariate) comparative analysis of the context and the nature of both types of internal fighting. The final, multivariate regression analysis investigates whether the bivariate comparative results still hold if alternative explanations are controlled for. As far as data are available, the analyses try to cover all possible levels of analysis (i.e. the actor level, the episode level, the conflict level, the war level and the country level). The paper at hand only presents the country-level results of this final, multivariate regression analysis.
1 Introduction

For about two decades, peace and conflict research has been discussing the emergence of “New Wars”.\footnote{For a summary of this discussion see Brzoska (2004).} It has been argued that especially the end of the Cold War and increasing globalization resulted in significant changes in the incidence and nature of internal warfare. According to the advocates of the concept, New Wars emerge in weak states and differ from “old” inter-state wars as well as from conventional intra-state wars in the nature and number of involved actors, their motives and modes of financing warfare, the applied strategies and the duration of fighting. More specifically, advocates of the concept identify a privatization, demilitarization or internationalization of actors, an economization of motives, a brutalization of violent strategies and prolonging warfare (Kaldor 1999, pp. 6 sq., 69 sq., 2006; Münkler 2006, p. 134). However, they admit that new and old wars in fact share certain characteristics. For example, Münkler (2006) emphasizes that a privatization and demilitarization of warfare as well as asymmetric fighting have already been observed in the past. What constitutes the fundamental novelty of New Wars is rather the coincidence of these three changes (Münkler 2006, pp. 134 sq., 142 sq.; Kaldor 2007, pp. 2 sq.). Accordingly, New Wars are not fundamentally “new” but characterized by a specific combination of values of already known parameters or dimensions of warfare. Thus, reference to the occurrence of single aspects of New Warfare (e.g. the importance of non-state actors or massive violence against civilians) in certain old wars does not shatter the concept of New Wars. Instead, the concept’s global theses on the changing nature of internal armed conflict require large-N empirical testing based on data with extensive temporal and geographical coverage.

Nevertheless, the recent discussion of the concept of New Wars generally remained a theoretical debate merely supported by case-study-evidence or evidence from comparative case-study-designs (e.g. Heupel 2005; Heupel and Zangl 2004, 2010; Schlichte 2002, 2006a,b; Kalyvas 2001; Ellis 2003). Systematic tests of deduced hypotheses have not been conducted. On the other hand, many quantitative large-N studies tested at least some aspects of the concept, yet without explicitly referring to the concept of New Wars.\footnote{Examples are Collier and Hoeffler (2004), Lujala et al. (2005), and Lujala (2005) on the role of conflict resources, Fearon (2004) and Buhaug, Gates, et al. (2005) on the duration of warfare or Lacina and N. P. Gleditsch (2005), Lacina (2006), and Lacina, Russett, et al. (2006) on the brutality of fighting. The later refer to the concept of New Wars only casually.} Although Melander et al. (2006, 2009) rely on the concept of New Wars for their theoretical arguments, their quantitative analyses remain limited to a single dimension of New Warfare (the quantity and quality of violence). Most importantly, however, even these authors, who explicitly aim to test the concept of New Wars, resort to conflict data that do not include or only incompletely cover New Wars: Their analyses are based on conventional conflict data that do not capture wars between non-state actors, taking place in a context of complete or partial state failure or within states that lack international recognition.
In order to close this gap, Sven Chojnacki and his colleagues from the Free University of Berlin engaged in a unique data experiment. They published a “New List of Wars” that in its latest (and for the time being last) version covers worldwide incidences of warfare between 1946 and 2009. For data collection, the authors relied on existing and well-accepted quantitative data sets. However, they added the missing category of “sub-state wars”. In contrast to conventional civil wars where the state always constitutes one party to the conflict, these sub-state internal wars are mainly characterized by their non-state nature.\(^3\) I rely on these and similar data (the “Non-State Conflict Dataset” compiled by the Uppsala Conflict Data Program) to uncover whether the incidence and the significance of non-conventional (non-state) internal fighting are indeed increasing and whether the context and nature of such internal fighting significantly differ from the context and nature of conventional (state-based) internal fighting. More precisely, I study whether non-state fighting happens in significantly more fragile states, whether it more often takes place in a context where certain conflict resources occur or are produced, whether it lasts significantly longer, whether it is significantly more intense and whether it is carried out by a comparatively large number of actors whose nature (e.g. their level of organization) also differs as well as the kind of violence they apply.

For the first time, this study links the above all theoretically discussed concept of New Wars with recently published large-N quantitative data sets that are measuring the incidence, the context and the nature of internal fighting. The empirical analysis reaches beyond a single or comparative case study design and does not systematically exclude non-conventional (non-state or sub-state) internal fighting. Intensive warfare and low intensity armed conflicts are equally covered. As demanded by Kahl and Teusch (2004, pp. 384 sq., 400), Heupel and Zangl (2004, p. 349), and Zangl and Zürn (2003, pp. 182–187), I contrast non-conventional with conventional intra-state (instead of inter-state) wars and conflicts. This comparison not only captures every case of non-state and state-based internal fighting but all dimensions of the concept of New Wars which at the same time are general dimensions of internal fighting. For most of its parts, the empirical analysis not only covers the conflict and the war level, but also the actor-level, the conflict episode level and the country level. This allows to study the robustness of effects across levels of analysis. The results of the empirical analysis challenge the outcome of existing quantitative studies on the incidence and nature of contemporary internal warfare while the prospects and limits of systematic empirical tests of the concept of New Wars are also discussed. In addition, I theoretically refine the concept of New Wars by identifying mechanisms that are linking a privatization of violent actors, the availability of (certain) conflict resources and worsening levels of state weakness with changes in the nature, intensity and duration of fighting. This is especially demanding because so far the theoretical discussion of New Wars lacks a clear understanding of the meaning of the concept, its dimensions and, most importantly, an understanding of how

\(^3\)I use the term “New Warfare” interchangeably with the term “non-conventional”, “non-state” or “sub-state internal warfare”. Likewise, the term “conventional internal warfare” is used interchangeably with the term “state-based internal warfare” or “(conventional) civil warfare”. 
these dimensions relate to each other. The focus on the nature of internal fighting also contributes to the State of the Art as variance in the intensity or duration comparatively rarely constitutes the dependent variable. In the past, conflict research focused on great power or inter-state wars instead of intra-state warfare while contemporary civil wars research oftentimes deals with the incidence (i.e. changes in the proportion of countries at war in every given year) or the causes instead of the nature of internal fighting.

The overall research project is composed of six (three theoretical and three empirical/analytical) parts. The first theoretical part describes “old wars”, i.e. conventional inter-state as well as conventional intra-state wars. Because old inter-state wars are becoming a “relict of the past”, the focus soon shifts to the latter kind (so-called greed or grievance rebellions). This type of internal armed conflict had been dominating warfare at least since the end of World War II. However, within the post-Cold War era, advocates of the concept of New Wars believe to observe the emergence and increasing importance of a new type of internal warfare which is described within the second theoretical part. I clarify the context and dimensions of New Wars and (because New Wars are often confounded with other kinds of organized violence) summarize the major similarities and differences between conventional (state-based) internal armed conflicts (especially greed rebellions) on the one hand side and non-conventional (non-state) armed conflicts on the other. I also briefly distinguish non-conventional (non-state) internal armed fighting from terrorism before I critically discuss both the concept of New Wars and the State of the Art. I especially criticize that a clear understanding is missing of how the single dimensions of New Warfare interact with each other. The third theoretical part of the larger research project therefore aims to provide a refinement of the concept by identifying respective mechanisms. More specifically, I ask in how far differences between conventional and non-conventional internal armed conflicts in the nature and number of violent actors, their motives and their political context can explain differences in the nature of applied violence (in the level of civilian abuse) as well as variance in the scale of violence (in the number of battle-related military deaths). The empirical part starts with an introduction of data sets that are now available to measure the incidence, the context and the various dimensions of non-state and state-based internal fighting. Afterwards I present the results of the descriptive analysis, of the bivariate cross-sectional comparative analysis and of the multivariate regression analysis.

The conference paper at hand summarizes the main country-level results of this final multivariate regression analysis. Because I focus on the empirics, I only briefly introduce the concept of New Wars and only occasionally refer to the results of the prior descriptive and bivariate comparative analyses.
2 The Theoretical Concept of New Wars

According to the advocates of the concept, New Wars arise in a context of “state failure [...] or at least a failing state” (Kaldor 2006, p. 6). Especially processes of globalization and the end of the Cold War contributed to state weakness. Globalization weakened states’ monopoly of legitimate organized violence “from above” e.g. through the increasing trans-nationalization of military forces and the interference of private external actors in conflict and post-conflict situations. Both globalization and the end of the East-West controversy contributed to crises of identity, the rise of alternative, vertical identities and the emergence of “identity politics”. The latter are used by violent actors in New Warfare to mobilize combatants and to justify their criminal and illegal activities. The end of the Cold War also led to a shortfall of financial and material support from former super-powers which further weakened states and violent non-state actors. As far as possible, the lack of financial resources is compensated by natural resources extraction and the build-up of specific New War Economies. The failure of neoliberal development strategies and the following debt crisis further aggravated the fight over natural resources. Finally, the end of the Cold War not only left an enormous surplus of small and light weapons that are primarily used in New Wars but also resulted in a large supply of well trained and war-experienced soldiers. This gave rise to rebel groups, private military companies and mercenaries.

Weak states are unable to inhibit a privatization of violence, to effectively end fighting if it breaks out among non-state groups and to stop them from criminal activity. At worst, non-state or quasi-state actors completely take over government functions up to the provision of selective security. This has been referred to as an erosion of states’ monopoly of organized violence “from below”.

The emergence of multiple non-state actors following their private economic interests results in the establishment of New War Economies. Within these war economies, the realization of private gain depends on the continuation of fear and the perpetuation of hate. In order to stabilize war economies violent actors therefore resort to identity politics and strategies that systematically and permanently target civilians.

Both the New War Economies and the New War Strategies explain the comparatively long duration of New Warfare. In addition, a quick and stable settlement solution through negotiation is unlikely due to the high number of opposed actors which also increases the chances of a renewed outbreak of violence (Kaldor 1999, p. 9).

Because extensive and intensive warfare further weaken states there exist feed-back loops which render a determination of the direction of relationships difficult. For instance, while in Old Wars victory over an enemy resulted in state-building, New Wars “exacerbate the disintegration of the states” (Kaldor 2005, p. 3; Münkler 2005, p. 76). Therefore, state weakness contributes to the outbreak of New Wars and Conflicts as
much as it can be considered a consequence of New Warfare. Likewise, state weakness is a precondition for the emergence of violent non-state actors. However, the existence and activities of non-state violent actors in return weaken states. Similarly, exclusive identities can be considered a cause of New Warfare because they contribute to the outbreak of violence, provide ground for the emergence of identity politics, excessive violence and the functioning of war economies. However, the spread and hardening of sectarian ideologies (up to the emergence of a “culture of violence”) are also a consequence of (prolonged and intense) warfare (Kaldor 2001). Kaldor (2006, p. 8) notes that “those conditions I describe that lead to war are worsened by war. The criminalised economy has spread, extremist ideologies catch on, as people get killed they start to hate. The institutions of the state are even weaker than they were before and what that means is that these are wars that are terribly difficult to end, they go on for years and years and years”.

The above introduced the term “New Warfare” as a sub-type of internal armed conflict that is characterized by a specific combination of values of the following dimensions of warfare: The nature and quantity of actors involved in fighting, their motives and modes of financing warfare, the applied strategies and the duration of fighting. This is largely in line with Kaldor (1999, p. 14), who distinguishes old, inter-state wars from New Wars with respect to the type of policy and army involved in fighting, the goals of warfare, the associated mode of financing warfare and the applied military technique. Others came up with slightly different distinguishing features which indicates that a clear differentiation of Old from New Wars is by no means trivial. Kaldor (1999, pp. 2 sq., 2005, p. 3) further complicates the matter by noting that New Wars involve elements of pre-modernity and modernity such as a blurring of the distinctions between war (usually defined as violence between states or organized political groups for political motives), organized crime (violence undertaken by privately organized groups for private purposes, usually financial gains) and large-scale violations of human rights (violence undertaken by states or politically organized groups against individuals) (Kaldor 2007, p. 2). Although New Wars are localized, they built on trans-national connections so that a distinction between internal and external, between aggression (attack from abroad) and repression (attacks from inside the country), between local and global are difficult to sustain. Although the privatization of violence is an important element of New Wars, Kaldor realizes that in practice, the distinction between what is private and what is public, state or non-state, informal or formal, between what is done for economic or political motives cannot easily

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4Heupel and Zangl (2010, p. 31) distinguish old and new intra-state wars “by four criteria relating to the warring parties, their war economy, war motives and warfare strategies”. According to Snow (1996, p. 76), New Wars and conventional insurgencies differ in regard to the overt purpose of gaining political power, the degree to which the parties pursue the political loyalty of an identical center of gravity, the degree to which they rely on terror and intimidation rather than positive appeals and the extent to which they follow something like the mobile-guerrilla strategy in waging war. Newman (2004, p. 174) distinguishes Old from New Wars in terms of the protagonists (state/public or non-state/private actors), their primary motives (ideology, territorial secession or material aggrandizement), the spacial context of warfare (interstate, “civil”, regional or global), the technological means of violence (weapons and strategies), the social, material and human impact of conflict and the political economy and social structure of conflict.
be applied. Single features of New Wars and Conflicts (e.g. the use of mercenaries or only partly professional armies) have indeed been mentioned as characteristics of old inter-state wars (e.g. the early modern wars). An erosion of what is internal and external already happened in ideological Cold War fighting when the importance of military alliances became apparent. The elimination of the distinction between private and public and the targeting of civilians and economic infrastructure are features of total warfare, too, while private interests in warfare (the latest) rose with the emergence of the military-industrial complex. This renders a clear differentiation of types of armed conflict in general (and between sub-types of internal armed conflict in specific) very difficult though indispensable.

Whether (or to what degree) New Wars are actually “new” is an ongoing debate that cannot be solved here. An exhaustive and mutually exclusive typology still needs to be developed through a systematic process rather than merely by intuition. The development of such a typology is necessary not only for rhetorical reasons to justify the labeling of these wars and conflicts as “new” but mostly for analytical purpose. Kaldor (2005, p. 10) adds another argument. She calls New Wars “new” not because they are altogether new but “because we can only develop alternative strategies if we see how different they are from World War II, [the] Cold War or the “War on Terror”. Although I agree that a profound understanding of the phenomenon forms the basis of any political action including intervention, I disagree in one regard: in order to develop alternative strategies we especially need to see how different New Wars are from conventional, intra-state wars.

Within the larger research project, I approached this question by providing a systematic and theory-driven comparison of conventional (state-based) armed conflicts (especially greed rebellions) on the one hand side and new (non-state) armed conflicts on the other. I also aimed to theoretically refine the concept by identifying mechanisms linking the dimensions of New Warfare. For this purpose, I relied on theoretical work by Jeremy Weinstein who suggests that differences in how rebels treat civilians during warfare are due to variation in the initial conditions rebel leaders are facing. The kind of resources available to them determines their recruitment strategy which shapes the membership profile of the emerging rebel group. The membership of the rebel organization explains the internal structure of the group as well as the kind of institutions it develops in order to govern the local population which both determine the patterns of violence applied against non-combatants (Weinstein 2005, 2007; Humphreys and Weinstein 2006). Weinstein’s theory can explain why the level of applied violence against civilians varies between rebel groups. This is remarkable because neither the concept of New Wars, nor greed or grievance models have much to offer as to why rebel organizations abuse civilians in some contexts but not in others. His argument provides the missing micro-foundation linking a major context factor of New Warfare (the availability of economic resources) with main outcome variables of the concept (the level and character of violence committed during warfare). In addition, I refer to Stathis Kalyvas (2006) who argues that it is the type of sovereignty or control that exists in a given
region which affects the violent strategies of political actors involved in armed conflict. Where violent state and non-state actors lack the military resources necessary to impose unilateral control, they are more likely to use indiscriminate violence against civilians as a means to shape collaboration and deter defection. Interestingly, the main independent variable specified by Kalyvas (the level of military control which a belligerent is able to exert over a contested territory) well relates to the explanatory factors identified by Weinstein (the quantity and quality of resources available to rebel organizations and the development of more or less effective and efficient structures of internal and external control and management). Both certainly impact upon the rebels’ chances of gaining and maintaining territorial control. In addition, I find Kalyvas’ argument quite helpful in order to link the specific nature and quantity of actors involved in New Warfare with the nature of applied violence. The more actors involved, the greater the competition and the less likely the establishment of permanent unilateral control which, according to Kalyvas, increases the risk of indiscriminate violence against civilians. Actors recruited outside of the conflict area who lack local knowledge might also find it more difficult to exert control over a given territory and for this reason use violence indiscriminately. Instead of presenting Kalyvas’ argument as an alternative explanation to Weinstein’s theory, I therefore consider the two theories complementary. Both theories are very helpful in linking state failure (or a lack of military control), the availability of conflict resources and the specific nature and quantity of involved actors with the scale and nature of the applied violence.

Because I have discussed these theoretical arguments at length at another occasion\(^5\), the reminder of this paper focuses on the empirical investigation of the above question (how different New Wars are from conventional intra-state fighting). The corresponding analysis differentiates types of internal conflict according to the political status of the belligerents as proposed by Chojnacki (2006). Though this is common practice in civil wars research, most existing data collection efforts do not gather information on entirely non-state armed conflicts. For this reason, this sub-category of internal fighting is absent from many commonly used conflict data sets and therefore from most empirical studies on the incidence and nature of contemporary internal warfare. Only recently, scientists at the Free University of Berlin and from the Uppsala Conflict Data Program (UCDP) at the Uppsala University in Sweden started to collect systematic data on non-state/sub-state internal armed conflicts. If there is some truth to the concept of New Wars, this kind of internal fighting should rather match the ideal type of New Warfare as compared with conventional (state-based) armed conflicts. This should hold for the political context as well as for all dimensions of non-state/sub-state internal fighting because New Wars and Conflicts are believed to be characterized by the coincidence of specific characteristics. Alongside the hypotheses that shall be tested, the following briefly introduces the data sets I use in order to measure the incidence, the nature and

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the context of non-state and state-based internal fighting.

3 Hypotheses

In line with the Concept of New Wars, I investigate whether the chances of a country to experience non-state internal fighting significantly increase if it produces conflict resources in general and easily accessible and lootable conflict resources (drugs, secondary diamonds or gemstones other than diamonds) in specific. In addition, the chances of a country to experience non-state internal fighting are expected to be significantly higher the weaker the state. Because worsening levels of state weakness and the availability of conflict resources, can also be linked with the emergence of (conventional) state-based fighting, I included both factors in three different models predicting the experience of (any kind of) internal fighting, the experience of just state-based internal fighting and the experience of non-state internal fighting. In addition, I differentiate between the experience of comparatively intense internal warfare and the experience of internal armed conflict.

Furthermore, the above hypotheses are transferred to the conflict episode level, the conflict level and the war level where additional explanatory factors also come into play. Again, the chances of a conflict episode, a conflict or a war of being non-state in nature are expected to significantly increase if the fighting happens at times when (easily accessible and lootable) conflict resources are produced within the conflict-affected state. Likewise, the chances of a conflict episode, a conflict or a war of being non-state in nature are expected to be significantly higher the weaker the conflict-affected state prior to/at the outbreak of fighting. In addition, I expect the duration and the intensity of fighting as well as the number and the nature of the involved actors to be strong predictors of the type of internal fighting. However and against the expectations of the Concept of New Wars, the prior bivariate comparative analysis suggests that non-state internal fighting is of a much shorter average duration and much less intense than state-based internal fighting. If these findings are robust, the chances of a conflict episode, a conflict or a war of being categorized as non-state in nature should be significantly higher the shorter the duration and the less intense the fighting – even if alternative explanatory factors are controlled for. In line with the concept of New Wars, I also expect the chances of an internal war of being categorized as non-state in nature to significantly increase with larger numbers of involved actors.\footnote{This hypothesis only applies to the war level, because at the conflict and at the conflict episode level an internal armed conflict is defined as “dyadic”, i.e. the number of involved groups of national actors always equals “2” and displays no variance.} Likewise, the chances of an internal war of being categorized as non-state in nature are expected to be significantly higher if the war has seen an exter-
nal military intervention. Finally, the above hypotheses can be investigated at the actor-level. I expect the chances of a violent non-state group to engage in non-state internal conflict to be significantly higher if the group is operating in a country/countries where (easily accessible and lootable) conflict resources are produced. Secondly, the chances of a violent non-state group to engage in non-state internal conflict are expected to be significantly higher the weaker the state(s) where the actor is operating in. Finally, the chances of a violent non-state group to engage in non-state internal conflict are expected to significantly increase if the actor emerged by breaking away from another violent group or by a temporary split in the original movement.

4 Data

In order to investigate these hypotheses I rely on a number of different data sets that shall be briefly mentioned now. At the country level I depart from Gleditsch and Ward’s list of independent state (K. S. Gleditsch and Ward 1999, p. 398). I added information on the incidence of non-state and state-based internal wars provided by the “New/Consolidated List of Wars”. This data set covers all conventional (state-based) and non-conventional (non-state) internal wars between 1946 and 2009 that over their entire duration resulted in at least 1,000 (military or civilian) battle-related deaths. At least 100 people needed to be killed per year on both sides to rule out sporadic and one-sided acts of violence (e.g. terrorist attacks or genocide). In addition, the data set contains information on the nature and number of involved actors, the duration of warfare (in years) and provides information on external military interventions defined as “active violent interferences (involving military personnel and combat action) in an ongoing war from outside by at least one member of the state system” (Chojnacki 2006, p. 57).

For the post-Cold war era (1989-2011), data on the incidence of non-state internal armed conflicts are provided by UCDP’s “Non-State Conflict Dataset” (v.2.4-2012, 1989-2011). This data set defines a non-state conflict as the use of armed force between two organized groups, neither of which is the government of a state, which results in at least 25 battle-related deaths per year and per warring dyad. Thus, like the “New

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7The latest (and for the time being last) public version of the “New List of Wars” covers the period from 1946 to 2006. An unpublished re-check of the post-Cold War cases further extended the temporal reach of the data set up to 2009. This consolidated version of the “New List of Wars”, which is also referred to as the “Consolidated List of Wars (CoLoW)” (version 1.1, November 2009), was made available upon request by the authors. See also http://www.conflict-data.org/colew/about/ (visited on 2014-08-07) for information on the history of this data project.

List of Wars”, this data set covers non-state or sub-state fighting amongst militias, rival guerrilla groups, clans, warlords or communal groups that are either formally or informally organized. However, contrary to the “New List of Wars”, it includes low intensity, non-state fighting. In addition, this data set estimates the number of battle-related deaths for each non-state armed conflict. Due to the varying certainty of fatality reports, low, best and high estimates of battle-related deaths are given for each year. Luckily, compatible data on the intensity of state-based armed conflicts are provided by the dyadic version of UCDP’s “Battle Deaths Dataset”.

While the “New List of Wars” and its consolidated version can only be used to count the duration of internal warfare in years, UCDP’s “Non-State Conflict Dataset” is more ambitious in measuring the exact duration of active fighting. In addition to the year of observation of any dyadic non-state armed conflict, this data set provides a precise start date (a year, month and day) which corresponds to the first time when the dyadic conflict reached 25 battle-related deaths in one calendar year. Even the level of certainty for this date is reported. After a while, however, the fighting might level-off. Many conflicts experience such episodes of inactivity before they re-escalate again later. UCDP’s “Non-State Conflict Dataset” accounts for the fact that each dyadic conflict might split into several conflict episodes of various length and delivers all necessary information to count the number of conflict episodes and their length in days, months and years. For the purpose of comparison, compatible information on the precise start and end dates of state-based conflict episodes is needed. Up to the year 2009, this information can be taken from UCDP’s “Conflict Termination Dataset” (v.2010-1, 1946-2009) which is also available at the dyad level.

For actor-level data I rely on UCDP’s “Actor Dataset” (v.2.1-2012). This data set covers all violent actors that have been involved in every kind of organized violence compiled by the institute, i.e. state-based armed conflicts (1946-2011), non-state armed conflicts (1989-2011) and acts of one-sided violence (1989-2011). In addition, information is provided on how these actors came into existence (e.g. whether they broke away from another violent group or whether they were created by a temporary split in the original movement). Finally, UCDP’s “Actor Dataset” again reports whether the violent group

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9Formally organized non-state groups have announced a name and are permanently organized for battle. Conflicts amongst informally organized groups that have not announced a name and are not permanently organized for battle are covered by the data set if the violent activity meets the following requirements: there is a clear pattern of violent incidents that are connected and in which both groups use armed force against the other. Informally organized groups are composed of members or supporters of political parties or of members of broader categories of identifications, such as clans, ethnic or religious groups.

10Non-activity means that the criteria with regard to incompatibility, level of organization and 25 battle-related deaths are not met for at least one year. In that case, a “conflict-episode” is ending and the last date of recorded combat is reported – again as precisely as possible (Sundberg 2010, pp. 5 sq.).

11See Kreutz (2010).

is formally or informally organized. However, UCDP’s coding rules have to be taken into account if the organizational levels of actors involved in different kinds of internal armed conflict shall be compared. UCDP requires actors in state-based armed conflicts (as well as those who committed acts of one-sided violence) to be formally organized in order to be included in its data sets while actors involved in non-state armed conflicts can also be informally organized. For this reason, the organizational level of groups involved in state-based armed conflicts exhibits zero variance and per definition surpasses the organizational level of actors involved in non-state armed conflicts.

At all levels of analysis I supplemented data on the occurrence and production of conflict resources. The corresponding resources data sets have been compiled at the Peace Research Institute in Oslo (PRIO) or by Päivi Lujala and colleagues and contain information on the geological form and the occurrence and production status of primary and secondary diamonds, of other gemstones, of onshore and offshore oil/gas reserves, and of drugs (coca bush, opium poppy, and cannabis cultivation). Because the start years of production (and, in the case of drugs, also the end years of production) are reported, it is possible to account for a temporal overlap between the incidence of internal fighting and the actual production of these conflict resources. In addition, these data sets assign geographic coordinates to every hydrocarbon reserve, gemstone deposit, and area of drug cultivation. If similar geographic information would be available on the conflict zones of state-based and non-state internal armed conflicts, even the geographical overlap between the occurrence and production of these resources and the occurrence of internal armed conflicts could be accounted for. Unfortunately, data on the exact locations of non-conventional (non-state) armed conflicts are not provided – neither by the “Non-State Conflict Dataset” nor by the “New/Consolidated List of Wars”. Such information could be supplemented by using UCDP’s new “Georeferenced Event Dataset” (GED). So far, however, this data set only covers African countries and the 1989 to 2010 period. Therefore, the following analysis only relies on country-level resource data.

Finally, the multivariate regression analysis uses several indicators or indices measuring the level of state weakness or state fragility. In light of the ongoing discussion on how to define and measure this concept (and because the New Wars advocates themselves disagree on the background concept and comprehensiveness of the term), I refrain from identifying “the best” indicator. Instead, I rely on some of the most widely used fragility indices (or sub-indices and single indicators thereof) which had to meet four criteria: Firstly, each indicator is supposed to at least capture what Kaldor (1999) defines as weak or fragile statehood. Secondly, the data are available publicly and free of

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13The “Diamond Dataset (DIADATA)” (Gilmore et al. 2005, p. 264), the “Gemstone Site Dataset” (GEMDATA) (Lujala 2009), the “Drug Cultivation Dataset” (DRUGDATA) (Buhanga and Lujala 2005) and the “Petroleum Dataset” (v.1.2).

14See Melander and Sundberg (2011) and http://www.ucdp.uu.se/ged/ (28/08/14).

15Kaldor (1999, p. 92) believes New Wars to emerge in “weak states” that are characterized by “a loss of control over and fragmentation of the instruments of physical coercion” and a narrow functional and geographic reach of political institutions. This explains all sorts of government inefficiencies,
charge with, thirdly, a proximate worldwide geographical coverage and a maximum temporal reach. This implies a preference for narrow and direct measures of state fragility (e.g. indicators of the effectiveness of government institutions or the quality of the bureaucracy) instead of indirect ones (e.g. high levels of undernourishment or low literacy rates) which capture the consequences of such inefficiencies. In addition, development indicators provide information on the effectiveness of state institutions as much as they measure the effectiveness of local, national and international non-governmental actors – especially in a context where states are unwilling or unable to provide public services to their citizens and where the international community or private actors are stepping in.\(^\text{16}\) Rice and Patrick (2008, p. 17) address the same concern when noting that especially in post-conflict countries with an international peacekeeping presence, measures of state fragility are likely to reflect the support these countries are receiving from international institutions or foreign governments in fulfilling one or more government functions. If this is true and without appropriate controls, especially indirect and broad measures of state fragility are likely to systematically overestimate the capacity and governance performance of these fragile states. Finally, I am looking for indices that do not themselves contain violent conflict as one dimension of state fragility because otherwise a correlation between state fragility and warfare would be bound to occur (Kocher 2010). For the same reason, I avoid state fragility indices that include strongly correlated indicators (e.g. numbers of refugees and internally displaced people or the level of military spending and employment). The fact that several institutes publish data on the single dimensions of their state fragility measures helps to circumvent such circular arguments because then it is possible to disaggregate indices into their constituent parts and to choose only those sub-indices or single indicators that seem most appropriate.

Applying these criteria resulted in the selection of a number of fragility measures that were taken into consideration within the descriptive and comparative part of the larger research project. Of these, the multivariate regression analyses still include either the “Polity Fragmentation Indicator”\(^\text{17}\) or the “BTI Failed State Index”\(^\text{18}\) (which are both...
narrow measures of state fragility) or one of those indicators that are available for short
time-series. These are the “Government Effectiveness Indicator” and the “Control of
Corruption Indicator” of the “World Governance Indicators” (WGI) produced by the
World Bank\(^\text{19}\) as well as three sub-indices of the “State Fragility Index” (SFI)\(^\text{20}\): the
“SFI sub-Index I” (which contains all dimensions of the overall SFI with the exception
of “security effectiveness” in order to keep the measure conceptually independent from
armed conflict\(^\text{21}\)), the SFI effectiveness score (again without security effectiveness) and
the SFI legitimacy score. The fact that these measures allow to capture the level of
state weakness prior to/at the outbreak of internal fighting minimizes the possibility
of reverse causation at least for those cases of internal fighting that happened between
1995/1996 and 2011.\(^\text{22}\) The sources of these and the aforementioned indicators are listed
in section 7 on page 26.

5 Method of Analysis

The following presents the outcome of a multivariate regression analysis. This method
allows to explore in how far the value of a dependent variable changes when a key
independent variable is varied \textit{while other relevant independent variables are held fixed}.
At the actor level, this method of analysis allows to study whether worsening levels of
state weakness still correlate in a statistically significant way with engagement in non-
state fighting if other predictors (e.g. the fact whether the violent group is operating in
a country that produces easily accessible and lootable conflict resources) are controlled
for. Multiple regression analysis allows to study whether internal wars, armed conflicts
or conflict episodes are significantly more likely to be categorized as non-state if they
are happening in weaker states, or if they are taking place in (sub-Saharan) Africa
or if they are carried out in countries producing easily accessible and lootable conflict

\(^{19}\)The former captures perceptions of the quality of public services, the quality of the civil service and the
degree of its independence from political pressures, the quality of policy formulation and implemen-
tation and the credibility of the government’s commitment to such policies. Countries’ effectiveness
in fighting corruption is measured separately by the “WGI Control of Corruption Indicator” which
covers perceptions of the extent to which public power is exercised for private gain, including both
petty and grand forms of corruption, as well as the capture of the state by elites and private interests.
See (QoG Institute \(\text{2013}\), pp. 121–123; Teorell et al. \(\text{2013}\)).

\(^{20}\)The SFI uses analysis of electronic media to generate its data. The overall index is based on 14
indicators. A state is defined as fragile and likely to fail if it lacks \textit{effectiveness} and \textit{legitimacy} in four
“performance dimensions”: security, political, economic and social. See Marshall and Cole (\(\text{2011b}\),
p. 7) or Marshall and Cole (\(\text{2011a}\)).

\(^{21}\)The authors of the SFI explain that their security effectiveness score is in fact a country’s “residual
war” score which captures the number of involved wars, the length of interim periods of “no war”
between armed conflicts and the years spent in peace after warfare had ended.

\(^{22}\)Data on these measures are either made available through the Quality of Governance Project (QoG)
at the University of Gothenburg (I used the QoG time-series version from 30 April 2013; see Teorell
et al. \(\text{2013}\)) or through the websites of the authoring institutions.
resources while alternative explanatory factors are held constant at their means. At the country level, this method of analysis can be used to explore in how far levels of state weakness, the production of conflict resources or an interaction of both factors predict the experience of different kinds of internal fighting. Because the dependent variable is dichotomous, I use logistic regression models.

I started the analysis by formulating baseline models for each dependent variable and level of analysis. The resulting models represent all possible combinations of the independent variables and their different measures. This approach (to formulate all thinkable models and see which one describes the data best) is generally referred to as an exploratory data analysis (as opposed to a confirmatory data analysis). Out of these various baseline models and for each dependent variable, I selected the model(s) with the highest MacFadden’s pseudo-R-squared value (a likelihood-ratio index which in a logistic regression model compares the likelihood for the intercept only model to the likelihood for the model with the predictors). The higher this “coefficient of determination”, the better the statistical model fits the data.

The selected models were then further refined. I mean-centered all metric variables and afterwards included interaction terms between the respective mean-centered state weakness measures and the dummies indicating the production of (easily accessible and lootable) conflict resources. This allows to study whether the effect of state weakness is different in a context where such resources are produced or not (i.e. in a context where both, worsening state weakness and the production of such resources, can be observed). I used likelihood ratio tests for nested models to explore whether the interaction term adds to the overall model fit and also dropped other variables that did not meet this

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23I greatly reduced the number of alternative measures and just included those indicators which the prior comparative analysis identified as the most promising in terms of temporal scope and validity. The duration of fighting is measured in days and in months (instead of years) at least at the episode level where these more precise measures are available. The resources argument is captured by dummies indicating the production (instead of the occurrence) of conflict resources or, alternatively, the production of easily accessible and lootable conflict resources. To figure out whether effects are robust against changes in measurement, all models including the level of state weakness as an independent variable were calculated several times using the above listed alternative indicators. In order to account for regional effects, I calculated each model first with a sub-Saharan Africa dummy and second with an all-Africa dummy.

24This refinement process and the following regression diagnostics follow Kohler and Kreuter (2001) as well as the instructions (and rules-of-thumb for numerical tests) given at http://www.ats.ucla.edu/stat/stata/webbooks/ (visited on 2014-08-05) (Regression with Stata, Chapter 2 and Logistic Regression with Stata, chapter 3) and http://www.philender.com/courses/categorical/notes3/fit.html (visited on 2014-08-03).

25Centering a variable involves subtracting the mean (of only those observations that are included in the respective model) from each of the scores and then using the mean-centered independent variable instead of the original one. If interaction terms are included in the analysis, mean-centering the involved metric variables helps to avoid collinearity problems while it also facilitates the interpretation of results.

26Nested models are models that can be obtained by restricting a parameter (in this case the interaction term) in a more complex model to be zero.
requirement.\textsuperscript{27}

I checked the level of multicolinearity\textsuperscript{28} for all models by calculating variance inflation factors\textsuperscript{29} and used graphical methods\textsuperscript{30} to detect non-linear relationships between the dependent variable and independent variables which I then tried to account for by transforming the respective independent variables. I also identified observations with substantial impact on the goodness of fit of the entire model or on the parameter estimates\textsuperscript{31}, tested for model specification errors\textsuperscript{32} and conducted some robustness checks. I computed all final models without multivariate outliers (i.e. observations with $\text{delta-Chi-squared} > 4$) to see whether the results are sensitive to outliers and explored in how far the results of the final models are changing if alternative measures are used or if additional controls are included (that had previously been dropped).

As usual, MacFadden’s pseudo-R-squared serves as the overall measure of fit for the final logistic regression models. In addition, I computed (adjusted)-Count-R-squared and Hosmer-Lemeshow tests which inform about the proportion of correctly classified covariate patterns (beyond that by guessing the largest marginal).\textsuperscript{33} The regression outputs in numbers of the selected and final models are given in table 9 on page 34.

Through all these graphical methods and numerical tests I checked if the basic assump-

\textsuperscript{27}To decide on this matter I additionally used the fitstat command in stata which computes a variety of measures of fit that can be used to compare nested and non-nested models.

\textsuperscript{28}Multicolinearity occurs when two or more independent variables in a model are approximately determined by a linear combination of other independent variables included in the same specification. The higher the level of multicolinearity, the more difficult it gets to obtain a unique estimate of the regression coefficients. Severe multicolinearity largely increases the standard errors of the estimates which themselves become unreliable or unstable.

\textsuperscript{29}Variables with variance inflation factors $> 10$ merit further investigation.

\textsuperscript{30}Locally weighted mean regressions with a locally weighted scatterplot smoother.

\textsuperscript{31}To detect observations that stand out away from all the other data points I used scatterplot matrices. To detect unusual and influential covariate patterns I calculated the standardized Pearson residuals, deviance residuals, the Pregibon leverages, Pregibon’s dbeta (which is similar to Cook’s $d$ in OLS regressions as it provides summary information on the influence of a single observation on all parameter estimates) and Hosmer and Lemeshow’s delta-Chi-squared (which measures the change in the Pearson Chi-squared fit statistic if the specific observation is excluded from the analysis) and plotted these statistics against the predicted probabilities or simply against case numbers.

\textsuperscript{32}I computed link tests for model specification which are based on the idea that if a model is properly specified one should not be able to find any additional independent variable that is significant except by chance. The link test creates two new variables (the variable of prediction and the variable of squared prediction) which are then included as predictors. If the model is specified correctly, the former should be significant (because it is the predicted value) while the latter should not have much explanatory power and should therefore remain insignificant.

\textsuperscript{33}In a binary model it is possible to correctly categorize at least 50 per cent of all cases, without using any information from the independent variables, simply by choosing the outcome (0 or 1) with the largest percentage. Adjusted-Count-R-squared takes this into account and only reports the proportion of correct guesses beyond that by guessing the largest marginal. Hosmer-Lemeshow tests are believed to be the more appropriate index of fit (as compared with MacFadden’s pseudo-R-squared) if the number of covariate patterns is large relative to the number of observations.
tions underlying the regression models are met. Otherwise the obtained results might be misleading. I aimed to properly specify the models (to include all available relevant variables and to exclude all irrelevant variables), to detect unusual and influential observations that exert undue influence on the model fit and the estimated coefficients and to avoid multicolinearity. Still, the regression diagnostics as described above and the efforts to address violations of basic assumptions remain basic. Especially influential observations and important but omitted control factors remain a matter of concern. Despite the fact that there is room for improvement of the models, some outcomes are, however, very clear and consistent across specifications and levels of analysis. The below summary of results rather focuses on such tendencies and patterns in outcomes instead of discussing the results of “the” perfect and final model.

6 Results: Explaining Non-State Fighting at the Country, the Conflict and the Actor Level

The level of state weakness significantly correlates with the chances of a country to experience (any kind of) internal warfare. A worsening of state fragility (as measured by the SFI Sub-Index 1) of one unit above the average increases the odds of a country to experience internal warfare by a factor of 1.21, to experience state-based internal warfare by a factor of 1.24 and to experience non-state internal warfare by a factor of (just) 1.10 (if the exact same model would be used). A further increase in the level of state weakness (from one unit to two units above the average) would result in another multiplication of the chances by these factors and so on. Slightly different model specifications (other state weakness measures and models without an interaction term) yield similar results as demonstrated by the final models predicting the experience of state-based or of non-state internal warfare (see table 9 on page 34). In almost any case, the effect of state weakness is highly significant even if alternative explanations (most importantly the production of easily accessible conflict resources during times of warfare) are controlled for. Because the significance of the state weakness effect also does not vanish if regional

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34 Logistic regression models assume that the true conditional probabilities are a logistic function of the independent variables, that the model is properly specified, that the independent variables are measured without error, that the observations are independent and that the independent variables are not linear combinations of each other (see http://www.ats.ucla.edu/stat/stata/webbooks/(visited on 2014-08-05), Logistic Regression with Stata, chapter 3).

35 Without the interaction term, a worsening of state fragility (as measured by the SFI Sub-Index 1) of one unit above the average increases the odds of a country to experience state-based internal warfare by a factor of 1.29, to experience non-state internal warfare by a factor of 1.28 and to experience internal warfare in general by a factor of 1.28 (if the exact same model would be used for all three groups). An improvement of state fragility (as measured by the BTI State Fragility Index, again without the interaction term included in the model) of one unit above the average decreases the odds of a country to experience non-state internal warfare by a factor of 0.64, to experience state-based internal warfare by a factor of 0.64 and to experience internal warfare in general by a factor of 0.64 (if the exact same model specification would be used).
dummies are included in the models it appears to be more than just a (Sub-Saharan) Africa effect. Still, worsening levels of state weakness increase countries’ chances to experience state-based as well as non-state internal warfare to about the same extent.

The regional dummies themselves are significant if a country’s “experience of state-based internal warfare” and if “experience of internal warfare in general” shall be explained. This indicates that the models do not fully account for all relevant regional factors explaining these dependent variables. While this finding is little surprising, the direction of the effect (the size of the odds ratios) of the regional dummies is unexpected: the chances of a country to experience internal warfare in general and state-based internal warfare in specific are significantly (and much) lower for Sub-Saharan African countries (as opposed to the rest of the world) if the level of state weakness and the production of lootable resource are controlled for. Independent from these two explanatory factors, little remains from the region’s special proneness to conventional civil warfare. If a country produces lootable conflict resources this raises its chances to experience internal warfare even by a factor of 2.33. Its chances to experience state-based internal warfare almost triple (if the same model specification is used) or more than triple if the model is slightly modified.\footnote{For instance, if the model does not include the interaction term as done by the final model explaining the experience of state-based internal warfare presented in table 9 on page 34.}

In addition, I find modest support for an interaction effect between state weakness and the production of easily accessible and lootable conflict resources if “experience of any kind of internal warfare” constitutes the dependent variable. The level of significance of this interaction effect is low but holds across variations of the final model. The effect itself indicates that the impact of state weakness on the likelihood of a country to experience internal warfare is greater (increases by an additional factor of 1.14) if the country at the same time also produces lootable conflict resources. In other words: if the level of state fragility worsens (i.e. increases by one unit above the average) the chances of a country to experience internal warfare increase by an overall factor of 2.35 if the state also produces lootable resources (while the chances of a country that experiences the same change in the level of state fragility but does not produce such conflict resources are only raised by the above mentioned factor of 1.21). Using the exact same model specification to predict state-based internal warfare would yield an insignificant effect for the interaction term between state weakness and the production of easily accessible conflict resources. At first sight, this interaction seems to matter more if a countries’ engagement in non-state warfare is predicted. At least, the coefficient is slightly larger and more significant (than the above discussed effect found by the model predicting “experience of any kind of internal warfare”). However, in both final models the corresponding confidence intervals for the odds ratios contain the value one. The main effect of the resources variable remains insignificant, too, if “experience of non-state internal warfare” constitutes the dependent variable. This holds across variations of the final model.
Only if low-intensity fighting is taken into consideration another picture arises. Now, the final models presented in table 9 on page 34 indicate that the production of easily accessible and lootable conflict resources significantly increases the odds of a country to experience non-state armed conflict while it does not significantly increase the chances of a country to experience state-based armed conflict or to experience internal armed conflict in general. Neither did it significantly contribute to explain countries’ experience of non-state warfare. Thus, the significant effect of lootable conflict resources on the chances of a country to experience non-state internal fighting can only be detected if low-intensity battle is taken into consideration. The significance of the effect holds if the exact same model is applied (with the BTI Failed State Index as the state weakness measure), but also if Sub-Saharan Africa instead of Africa is included as the regional dummy and if the level of state weakness is controlled for. Likelihood Ratio Tests for nested models also confirm a significant contribution of this resources variable to the overall model fit.

The regional dummies themselves remain insignificant if engagement in non-state internal fighting constitutes the dependent variable. In fact, the regional dummies neither significantly correlate with experience of non-state armed conflict nor with experience of non-state internal warfare. In these cases, decisive but omitted regional factors therefore seem to be less of a concern. At least, this outcome contrasts with the aforementioned highly significant effects of the regional dummies if “experience of state-based internal warfare” constitutes the dependent variables and, to a lesser extent, if the experience of state-based internal armed conflict shall be explained.37

Finally, improving levels of state weakness again significantly reduce countries’ chances to experience non-state, state-based or any kind of internal armed conflict. If the same specification is used the effects turn out to be much larger compared with the effects of improving levels of state weakness on the chances of a country to engage in non-state, state-based or any kind of internal warfare.

An improvement of state fragility (which is measured by the BTI State Fragility Index in all three of the final models presented in table 9 on page 34) of one unit above the average decreases the odds of a country to experience non-state conflict by a factor of 0.39. However, if the exact same model specification is used, an equal improvement in the level of state fragility lowers the chances of a country to experience state-based internal armed conflict even to a greater extent.38 This outcome again contradicts the Concept of New Wars. However, theoretically it makes sense because the state constitutes one party to the conflict in conventional (state-based) fighting. If a state’s strength improves it should lower its risk of being attacked by non-state forces while an equal improvement in the level of state strength might affect the decision of non-state armed groups to battle each other comparatively less.

37 In the latter case, the effect is less significant and depends on the specification of the model.
38 The respective factor is only 0.32 (or even 0.30 if Sub-Saharan Africa is included) whether or not the model contains the resources dummy.
All final country-level models presented in table 9 on page 34 successfully passed tests for model specification errors. The models predicting countries’ experience of non-state, state-based or any kind of armed conflict display remarkably high measures of model fit. The fact that at the country-level non-state armed conflict is much more frequently observed than intense non-state warfare certainly contributes to the predictive power of these models.

Still, numbers of observations are low at the country-level. In addition, the issue of reverse causation between state weakness and internal fighting cannot be taken into account at this level of analysis. Engagement in armed battle impacts upon countries’ levels of state weakness as much as weak statehood contributes to the outbreak of violence in the first place. Luckily, both of these shortcomings can be addressed by moving the analysis from the country to the conflict or to the conflict episode level. At these levels of analysis, the degree of state weakness can be measured prior to the outbreak of violence, the number of observations significantly increases and additional control factors can be included. Now, the dependent variable is the nature of internal fighting (more precisely the chances of an internal armed conflict or conflict episode of being categorized as non-state in nature). At both levels of analysis the initial baseline models changed considerably during the refinement process. The final models account for non-linear relationships between the dependent and several independent variables. Their results, which are mostly robust across variations of the final models, indicate that the chances of a conflict or conflict episode to be non-state in nature significantly and greatly increase if the affected country at the same time produces easily accessible and lootable conflict resources and if the fighting is taking place within an African state.

Again, worsening levels of state weakness significantly correlate with greater chances of being categorized as a non-state conflict or non-state conflict episode. The final conflict level model even supports an interaction effect. A worsening level of state weakness (in this case measured by the Polity Fragmentation Indicator) of one unit above the average increases the chances of a conflict to be non-state in nature by a factor of 2.28 if fighting is taking place within a country that does not produce easily accessible and lootable conflict resources while an equal increase in the level of state weakness raises

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39Their adjusted Count R-squared values range between 0.42 and 0.61. Their pseudo R-squared values range between 0.36 and 0.38.

40The Count R-squared value of the model explaining experience of non-state warfare is as low as 0.13 while the Count R-squared value of the similar model explaining experience of non-state armed conflict is 0.42.

41Due to several missing cases on the state weakness measures and on the dummy measuring the production of easily accessible and lootable conflict resources, the final country-level models presented in table 9 on page 34 only cover between 129 and 164 states.

42I used the logged duration (in months) at the episode level and the logged intensity measure as well as the squared term of the state weakness measure (the BTI Failed State Index) at the episode level.

43The chances of a conflict or conflict episode to be non-state in nature are about 2.6 times larger if the affected country at the same time produces easily accessible and lootable conflict resources and about four to five times larger if it is taking place within an African state (as opposed to a non-African state). See odds ratios given in table 9 on page 34.
the chances of a conflict to be non-state in nature by a factor of 2.72 (2.28 plus 0.44) if the fighting happens within a country which at the same time produces such resources. These effects hold even if the regional affiliation of the country, the intensity and the duration of fighting are controlled for.

The number of battle-related deaths also significantly correlates with the dependent variable. The direction of the effect corresponds to the previous finding that non-state fighting tends to be comparatively less intense: the larger the number of battle-related deaths, the lower the chances of an internal armed conflict to be non-state in nature. The duration of fighting exerts a similar decreasing effect at the episode level only. Maybe this is due to the more precise measure of duration (in months) available at this level of analysis (which comes with the disadvantage of a much lower number of observations covered by the analysis). Different model specifications (the additional interaction term and the inclusion of the intensity measure which is only available at the conflict level) might also explain differences in the significance of the effects of the duration variables at the conflict versus the episode level.

Information on another important control factor, the number of involved actors, is lacking at the conflict as well as at the episode level though this variable turns out to be the most significant factor in predicting the nature of internal warfare. If the number of actors increases by one group above the average, this raises the chances of a case of internal warfare to be categorized as non-state by one third. Again, an increase in the duration of warfare of one year above the average significantly decreases the chances of an internal war of being categorized as non-state. Both effects are significant even if the model controls for the level of state weakness and the fact whether a country produces easily accessible and lootable conflict resources during times of warfare. These alternative explanations, however, stay insignificant at the war-level. Interestingly, the resources dummy would turn significant if the number of actors would be dropped from the specification. This indicates that both factors relate to each other and, if only one of them is included in the model, capture each others effects. Models that fail to control for the number of actors might therefore partly measure the effect through their resources variable (which might turn insignificant otherwise). Apart from this insight, the final war-level model suffers from a low number of observations and from the fact that non-state internal wars are rare events. The pseudo R-squared value is very low. At this level of analysis, even the highly significant results of the final model should be treated with caution. In many respects the above presented conflict and episode level analyses appear to be superior.

Finally, at the actor level improving levels of state fragility (measured by the WGI Control of Corruption Indicator) greatly and significantly reduce the chances of an actor to engage in non-state fighting. The opposite applies if the country, where the violent

44 A one unit increase in the logged number of overall battle-related deaths halves the chances of an internal armed conflict to be categorized as non-state in nature.

45 The interaction effect between state weakness and the production of conflict resources is only mildly
group is active in, produces (any kind of) conflict resources or is an African state. Both variables significantly increase the chances of a violent actor to engage in non-state conflict. The respective odds ratios are extremely large. I nevertheless refrain from an interpretation of effect sizes because even the refined model remains weak.\footnote{This relates to measurement issues. The model predicts the behavior of violent actors (their decision to engage in a certain kind of internal fighting) at a specific location and at a certain point in time by relying on aggregate national level data. Indicators on the timing, pace and magnitude of change in the level of state weakness would improve the analysis. Despite structural context factors, group characteristics need to be covered. So far, only the fact whether a group was created by breaking away from another actor or by a temporary split in the original movement has been taken into consideration. However, even across various specifications this factor never significantly contributed to explain an actor’s engagement in non-state fighting.}

46Effects are sensitive to (multiple) influential covariate patterns (outliers), the measures of model fit (pseudo R-squared and Count R-squared) are relatively low, the model fails the Hosmer-Lemeshow goodness-of-fit test and multicolinearity remains an issue if the interaction term is included (even if the involved metric variable, the state weakness measure, is mean-centered). At least a misspecification of the model cannot be detected and the number of observation included in the model is large (N=873).

47The data situation only seems a little better when it comes to related concepts. For instance, in their time-series analysis Hegre and Nygard (2012) are able to use seven disaggregated governance indicators to explore the effect of governance on the risk of conflict recurrence between 1960 and 2008. Hanson and Sigman (2013) note that “‘taken together” their annual measures of state capacity span 48 years (1960-2008) and 191 countries. A closer look, however, reveals that none of their 24

7 Conclusion

Much of the above supports the Concept of New Wars though the differences in the context and nature of non-state and state-based internal fighting are at times less pronounced and sometimes even contrary to the expectations of the concept. Especially the political context of non-state internal fighting deserves more attention and better data. Countries score surprisingly different on single state fragility indicators/dimensions which suggests that the true nature of state weakness varies greatly between countries despite similar aggregate scores. Ignoring this variance means a lumping together of rather diverse cases of state weakness. A more sophisticated way of theorizing the relationship between state fragility and armed conflict should take this variance into account, e.g. by investigating whether the nature (instead of the scale) of state fragility explains the kind of warfare that emerges. In addition, variance in the level of state fragility across time and space needs to be taken into account. Unfortunately, the temporal and geographical coverage of most available state fragility indices is very limited. Time-series data are at best available for single indicators and not even the entire post-Cold War era.\footnote{The existing measures of state fragility (including all of the above presented insignificant and unstable across variations of the final model. For these reasons, I do not discuss this result.}

46Effects are sensitive to (multiple) influential covariate patterns (outliers), the measures of model fit (pseudo R-squared and Count R-squared) are relatively low, the model fails the Hosmer-Lemeshow goodness-of-fit test and multicolinearity remains an issue if the interaction term is included (even if the involved metric variable, the state weakness measure, is mean-centered). At least a misspecification of the model cannot be detected and the number of observation included in the model is large (N=873).

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dices) are limited to countries as their fixed unit of analysis and are therefore unable to capture variance in state fragility at the sub-national level. Only very recent and innovative research heads towards geographically disaggregated measures of state fragility.\footnote{See e.g. Maedl et al. (2011), Camber (2010), Camber and Schutte (2012), Johnson (2007), and Holtermann (2012).} Likewise, more extended geographically disaggregated data is needed in order to match the locations of (non-state and state-based) internal conflicts with the occurrence and production of (additional) conflict resources. In this regard, the above outcome points to the importance of considering low-intensity fighting and to distinguish between the effects of certain kinds of conflict-relevant resources. Finally, data is needed on the internal structures of violent groups that engage in state-based as well as non-state internal fighting.\footnote{In this regard, the Organizational Structure of Armed Movement (OSAM) Dataset is a first and very promising step. See \url{http://www.polver.uni-konstanz.de/holzinger/team/vanderhaer/data/} (visited on 2014-08-07).}

\footnotesize

\begin{itemize}
  \item indicators in fact includes 191 countries. Nine measures cover less than 88 countries (one just 34) which is why they latter drop or impute a large number of missing cases (Hanson and Sigman 2013, pp. 12–15).
\end{itemize}
## Appendix

### List of Non-State Wars, 1946-2009

<table>
<thead>
<tr>
<th>Location</th>
<th>Year</th>
<th>Actors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyprus</td>
<td>1964</td>
<td>EOKA vs. Türk Mukavement Teskilatı &amp; Intervention</td>
</tr>
<tr>
<td>Burundi</td>
<td>1972-1973</td>
<td>Hutu Militias vs. Tutsi Minority</td>
</tr>
<tr>
<td>Chad</td>
<td>1978-1993</td>
<td>FAN, FAT, FAP, Islamic Legion, MPS, Mosanat, CSNPD, FARF, MDD, FNTR, CNR, FNT, MDJT &amp; Intervention</td>
</tr>
<tr>
<td>Liberia</td>
<td>1990-1996</td>
<td>NPFL, INPFL vs. ULIMO vs. Liberia &amp; Intervention</td>
</tr>
<tr>
<td>Kenya</td>
<td>1991-1993</td>
<td>Turkana Community vs. Borana Community</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>1991-2000</td>
<td>RUF, AFRC, Kamajors vs. Sierra Leone Army &amp; Intervention</td>
</tr>
<tr>
<td>Somalia</td>
<td>1992-2009</td>
<td>USC, UCS factions, SDM, SDA, SNA, SSNM, SNF, RRA, SRRC, several warlord militias &amp; Intervention</td>
</tr>
<tr>
<td>Congo/Zaire</td>
<td>1993-1994</td>
<td>Banyamulenge Militias, Tutsi FPR Guerrilla, Interahamwe Militias</td>
</tr>
<tr>
<td>Pakistan</td>
<td>1994-1995</td>
<td>MQM, PPP, PML, SSP, TJP, MQM Haqiqi vs. Militias, Pakistani paratroops</td>
</tr>
<tr>
<td>Pakistan</td>
<td>2001-2009</td>
<td>TJP, SMP vs. SSP, LeJ vs. Pakistan</td>
</tr>
<tr>
<td>Indonesia</td>
<td>1999-2002</td>
<td>Laskar Jihad, Mujahedeen KOMPAK vs. FKM, Republic of South Maluku group vs. Armed Forces of Indonesia</td>
</tr>
<tr>
<td>India</td>
<td>2002</td>
<td>Sangh Parivar (family of Hindu nationalist organizations) vs. Muslim groups</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>1995-1996</td>
<td>Tajikistan vs. UTO</td>
</tr>
</tbody>
</table>

Table 1: List of Non-State Wars (1946-2009). Source: “New/Consolidated List of Wars” v.1.3/v.1.1.
Variables and Data Sources


<table>
<thead>
<tr>
<th>Variables/Indices/Indicators</th>
<th>Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>State-Based Internal Fighting</td>
</tr>
<tr>
<td>Country name(s)/location(s), region(s) and unique identifiers (e.g. observation numbers, conflict or dyad IDs) (by country, war, conflict, conflict episode)</td>
<td>UCDP Battle-Related Deaths Dataset, v.5-2012b, 1989-2011 (dyad version)</td>
</tr>
</tbody>
</table>

Number & Nature Of Violent Actors

<table>
<thead>
<tr>
<th>Variables/Indices/Indicators</th>
<th>Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>State-Based Internal Fighting</td>
</tr>
<tr>
<td>Minimum number of involved national groups of actors (by war)</td>
<td>UCDP Battle-Related Deaths Dataset, v.5-2012b, 1989-2011</td>
</tr>
<tr>
<td>Organizational level of involved actors (by conflict, conflict episode)</td>
<td>UCDP Conflict Termination Dataset, v.2010-1, 1946-2009</td>
</tr>
</tbody>
</table>
- Dummy indicating whether a violent non-state actor was created by breaking away from another violent non-state group (by actor)
- Dummy indicating whether a violent non-state actor was created by a temporary split in the original movement (by actor)
- Actor Name, Actor ID
- Organizational level (by actor)
- Name(s) of the country/countries and region(s) where the violent actor has been active (by actor)

Level Of Violence In Internal Wars (1990-2009) And Conflicts (1989-2011)

<table>
<thead>
<tr>
<th>Variables/Indices/Indicators</th>
<th>Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>State-Based Internal Fighting</td>
</tr>
<tr>
<td>Best, low and high estimates of the total number of (military and civilian) battle-related deaths (by conflict, country)</td>
<td>UCDP Battle-Related Deaths Dataset, v.5-2012b, 1989-2011</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Variables/Indices/Indicators</th>
<th>Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>State-Based Internal Fighting</td>
</tr>
<tr>
<td>Number of country-years affected by internal warfare of any kind (by country)</td>
<td>New List of Wars v.1.3., 1946-2006 / Consolidated List of Wars v. 1.1., 1990-2009</td>
</tr>
<tr>
<td>Number of country-years affected by non-state/state-based internal warfare (by country)</td>
<td></td>
</tr>
<tr>
<td>Cumulative number of country-years affected by non-state/state-based internal warfare (by country)</td>
<td></td>
</tr>
<tr>
<td>Start year (by war)</td>
<td></td>
</tr>
<tr>
<td>End year (by war)</td>
<td></td>
</tr>
<tr>
<td>Duration in years (by war)</td>
<td></td>
</tr>
<tr>
<td>Variables/Indices/Indicators</td>
<td>Data Sources</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>• Start year (by conflict)</td>
<td>UCDP Battle-Related Deaths Dataset, v.5-2012b, 1989-2011</td>
</tr>
<tr>
<td>• End year (by conflict)</td>
<td>UCDP Non-State Conflict Dataset, v. 2.4-2012, 1989-2011</td>
</tr>
<tr>
<td>• Years affected by internal conflict, comma separated list (by conflict)</td>
<td></td>
</tr>
<tr>
<td>• Duration in years (by conflict)</td>
<td></td>
</tr>
<tr>
<td>• Number of country-years affected by internal conflict (by country)</td>
<td></td>
</tr>
<tr>
<td>• Number of country-years affected by non-state/state-based internal conflict (by country)</td>
<td></td>
</tr>
<tr>
<td>• First year of internal conflict (by country)</td>
<td></td>
</tr>
<tr>
<td>• Last year of internal conflict (by country)</td>
<td></td>
</tr>
<tr>
<td>• Precise start date (by conflict episode)</td>
<td>UCDP Conflict Termination Dataset v.2010-1, 1946-2009</td>
</tr>
<tr>
<td>• Precise end date (by conflict episode)</td>
<td>UCDP Non-State Conflict Dataset, v. 2.4-2012, 1989-2011</td>
</tr>
<tr>
<td>• Duration in days, months and years (by conflict episode)</td>
<td></td>
</tr>
<tr>
<td>• Level of precision of dates (by conflict episode)</td>
<td></td>
</tr>
</tbody>
</table>

**Occurrence And Production Of Conflict Resources**

<table>
<thead>
<tr>
<th>Variables/Indices/Indicators</th>
<th>Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Dummies indicating the occurrence/production of diamonds (any kind of/lootable/non-lootable) (by country)</td>
<td>PRIO Diamond Dataset, 1946-2005</td>
</tr>
<tr>
<td>• Year of discovery of the first lootable/non-lootable diamond deposit (by country)</td>
<td></td>
</tr>
<tr>
<td>• First year of lootable/non-lootable diamond production (by country)</td>
<td></td>
</tr>
<tr>
<td>• Dummies indicating whether diamond deposits (any kind of/lootable/non-lootable) had been known to occur/were produced prior to/during the first internal war (by country)</td>
<td></td>
</tr>
<tr>
<td>• Dummies indicating whether diamond deposits (any kind of/lootable/non-lootable) had been known to occur/were produced prior to/during times of internal fighting (by war, conflict, conflict episode)</td>
<td></td>
</tr>
<tr>
<td>• Dummies indicating whether a violent non-state actor was operating in a country where diamonds (any kind of/lootable/non-lootable) occur/are produced (by violent actor)</td>
<td></td>
</tr>
</tbody>
</table>
• Dummies indicating the occurrence/production of gemstones other than diamonds (by country)
• Year of discovery of the first gemstone deposit (by country)
• First year of gemstone production (by country)
• Dummies indicating whether gemstones (or gemstones and/or diamonds) had been known to occur/were produced prior to/during the first internal war (by country)
• Dummies indicating whether gemstones had been known to occur/were produced prior to/during times of internal fighting (by war, conflict, conflict episode)
• Dummies indicating whether a violent non-state actor was operating in a country where gemstones occur/are produced (by violent actor)

Gemstone Site Dataset, 1946-2004

• Dummy indicating the cultivation of drugs (coca bush, opium poppy and/or cannabis) (by country)
• First year of large scale drug production (coca, opium and/or cannabis) (by country)
• Final year of large scale drug production (coca, opium and/or cannabis) (by country)
• Dummy indicating large scale production of drugs (coca bush, opium poppy and/or cannabis) prior to/during the first internal war/conflict (by country)
• Dummy indicating large scale production of drugs (coca bush, opium poppy and/or cannabis) prior to/during times of internal fighting (by war, conflict, conflict episode)
• Dummies indicating whether a violent non-state actor was operating in a country where drugs (coca, opium and/or cannabis) are produced (by violent actor)

Drug Cultivation Dataset, 1946-2002

• Dummies indicating the occurrence/production of oil or gas (any kind of/onshore/offshore) (by country)
• Year of discovery of the first onshore/offshore oil or gas deposit (by country)
• First year of onshore/offshore oil or gas production (by country)
• Dummies indicating whether oil or gas deposits (any kind of/onshore/offshore) had been known to occur/were produced prior to/during the first internal war (by country)
• Dummies indicating whether oil or gas deposits (any kind of/onshore/offshore) had been known to occur/were produced prior to/during times of internal fighting (by war, conflict, conflict episode)
• Dummies indicating whether a violent non-state actor was operating in a country where oil or gas deposits (any kind of/onshore/offshore) occur/are produced (by violent actor)

Petroleum Dataset, v.1.2. 1946 to 2003
## Political Context/State Fragility

<table>
<thead>
<tr>
<th>Variables/Indices/Indicators</th>
<th>Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>- The level of state weakness independently defined from armed conflict (by country)</td>
<td>SFI sub-Index I (overall SFI score minus security effectiveness)</td>
</tr>
<tr>
<td>- The level of state effectiveness independently defined from armed conflict (by country)</td>
<td>SFI effectiveness score (overall SFI effectiveness score minus security effectiveness)</td>
</tr>
<tr>
<td>- The level of state legitimacy (by country)</td>
<td>SFI legitimacy score&lt;br&gt;All produced by the Center for Global Policy, George Mason University</td>
</tr>
<tr>
<td>• The degree of state failure (by country)</td>
<td>Failed State Index, Bertelsmann Transformation Index (BTI), Bertelsmann Foundation/Center for Applied Policy Research, University of Munich</td>
</tr>
<tr>
<td>• The effectiveness of government (by country)</td>
<td>Government Effectiveness Indicator, World Governance Indicators (WGI), World Bank</td>
</tr>
<tr>
<td>• The level of corruption (by country)</td>
<td>Control of Corruption Indicator, World Governance Indicators (WGI), World Bank</td>
</tr>
<tr>
<td>• The degree of polity fragmentation (by country)</td>
<td>Fragmentation Indicator, Polity IV Project Data Series, Center for Global Policy, George Mason University</td>
</tr>
<tr>
<td>• The level of state fragility (see above) within the country where internal fighting took place (by war, conflict, conflict episode)</td>
<td>All above indicators</td>
</tr>
<tr>
<td>• The level of state weakness, government effectiveness and corruption within the country where internal fighting took place prior to the outbreak of internal fighting (by conflict, conflict episode)</td>
<td>SFI and WGI measures</td>
</tr>
<tr>
<td>• The (average) level of state fragility (see above) within the country (the countries) where a violent non-state actor had been active (by violent actor)</td>
<td>All above indicators</td>
</tr>
</tbody>
</table>
### Correlation Matrix of State Weakness Measures

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WGI Control of Corruption</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WGI Governance Effectiveness</td>
<td>0.91</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BTI Failed State</td>
<td>0.72</td>
<td>0.73</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SFI Effectiveness</td>
<td>-0.64</td>
<td>-0.71</td>
<td>-0.74</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SFI Sub-Index 1</td>
<td>-0.69</td>
<td>-0.75</td>
<td>-0.80</td>
<td>0.91</td>
<td>1.00</td>
<td></td>
<td></td>
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<tr>
<td>SFI Legitimacy</td>
<td>-0.60</td>
<td>-0.64</td>
<td>-0.71</td>
<td>0.68</td>
<td>0.90</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Polity Fragmentation</td>
<td>-0.26</td>
<td>-0.29</td>
<td>-0.44</td>
<td>0.18</td>
<td>0.27</td>
<td>0.32</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Pearson Correlation Coefficient*

Table 8: Correlation Matrix of State Weakness Measures. Source: own calculation.
Regression Results

<table>
<thead>
<tr>
<th>Regression Results in Numbers of the Final Models</th>
<th>Independent Variables &amp; Control Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dep. Var.: Engagement in / Categorization as Non-State Fighting</strong></td>
<td><strong>State Weakness</strong> (various measures)</td>
</tr>
<tr>
<td>Odds:</td>
<td>0.98</td>
</tr>
<tr>
<td>Sign: ** *** X X X X</td>
<td>X</td>
</tr>
<tr>
<td><strong>Episode Level</strong></td>
<td><strong>War Level</strong></td>
</tr>
<tr>
<td>Odds:</td>
<td>0.69</td>
</tr>
<tr>
<td>Sign: X X *** X *** ns</td>
<td>ns *** ns *** X ns ***</td>
</tr>
<tr>
<td><strong>Dep. Var.: Experience of Internal Warfare</strong></td>
<td><strong>Country Level</strong></td>
</tr>
<tr>
<td>Odds:</td>
<td>1.21</td>
</tr>
<tr>
<td>Sign: *** X ** X X</td>
<td>X *** X</td>
</tr>
<tr>
<td><strong>Dep. Var.: Experience of Non-State Internal Warfare</strong></td>
<td><strong>Country Level</strong></td>
</tr>
<tr>
<td>Odds:</td>
<td>0.98</td>
</tr>
<tr>
<td>Sign: X X *** X *** ns</td>
<td>ns *** ns *** X ns ***</td>
</tr>
<tr>
<td><strong>Dep. Var.: Experience of State-Based Internal Warfare</strong></td>
<td><strong>Country Level</strong></td>
</tr>
<tr>
<td>Odds:</td>
<td>1.29</td>
</tr>
<tr>
<td>Sign: *** X *** X ***</td>
<td>X *** X</td>
</tr>
<tr>
<td><strong>Dep. Var.: Experience of Internal Armed Conflict</strong></td>
<td><strong>Country Level</strong></td>
</tr>
<tr>
<td>Odds:</td>
<td>0.98</td>
</tr>
<tr>
<td>Sign: X X *** X *** ns</td>
<td>ns *** ns *** X ns ***</td>
</tr>
<tr>
<td><strong>Dep. Var.: Experience of Non-State Internal Armed Conflict</strong></td>
<td><strong>Country Level</strong></td>
</tr>
<tr>
<td>Odds:</td>
<td>1.29</td>
</tr>
<tr>
<td>Sign: *** X *** X ***</td>
<td>X *** X</td>
</tr>
<tr>
<td><strong>Dep. Var.: Experience of State-Based Internal Armed Conflict</strong></td>
<td><strong>Country Level</strong></td>
</tr>
<tr>
<td>Odds:</td>
<td>0.98</td>
</tr>
<tr>
<td>Sign: X X *** X *** ns</td>
<td>ns *** ns *** X ns ***</td>
</tr>
</tbody>
</table>

Independent variables marked as missing (•) are either not included for theoretical or statistical reasons (e.g., due to colinearity issues) or are unavailable at the respective level of analysis. Independent variables dropped during the refinement process (e.g., because they were inferior to alternative measures or because they did not contribute to the overall model fit) are marked with an X. Independent variables separated by dotted lines are alternative measures and as such never simultaneously included within the same model. Levels of significance: ***=p<0.01, **=p<0.05, *=p<0.1.

Table 9: Regression Results in Numbers of the Final Models. Source: own calculation, stata 8.0.
References


In: American Political Science Review 97 (1), pp. 75–90.


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