Pressuring Rebels: A Quantitative Study on Sanctions’ Effects on Violence Against Civilians

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ABSTRACT

Violence against civilians is a tragic but common consequence of civil war. This phenomenon has accordingly been a well-publicized subject of research during the last decade, and it is now conventional knowledge that armed actors abuse civilians to varied extents in different strategic settings. The United Nations has condemned this type of violence and commanded that tools able to deter actors from targeting civilians should be utilized. One of these tools are sanctions, and this thesis explores how this non-violent type of intervention may affect rebel groups’ use of violence against civilians. Based on theories of conflict dynamics and strategic choice, the proposed hypothesis expects an increase of violence against non-combatants as sanctions are imposed on rebel groups. Using yearly data on rebel groups active between 1992 and 2014 in a quantitative analysis, the results support the hypothesis. This has important implications not only for the field of peace and conflict studies but also for policymakers seeking to decrease civilian suffering in armed conflict.

Key words: sanctions, United Nations, civil war, rebel groups, one-sided violence
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1. INTRODUCTION

Violence against civilians\(^1\) is a tragic but common consequence of armed conflict, and the field of peace and conflict studies has for long been puzzled by the fact that warring actors target non-combatants despite the fact that they often rely their support. Hence, this phenomenon has been researched thoroughly during the last decade by a number of scholars (see for example Hultman, 2007, 2012; Wood, 2010, 2014; Wood, et al., 2012), and it is now conventional knowledge that some groups use violence against civilians as their predominant tactic whilst others refrain from this completely. Resolution 1265 adopted by the United Nations Security Council (UNSC) strongly condemned the targeting of civilians during armed conflict, and expressed that the tools available to the council should be utilized in order to prevent and decrease civilian suffering (UNSC, 1999:2-3). Conflict prevention tools such as armed intervention (Wood et al., 2012) and peacekeeping operations (Hultman, 2010) have been evaluated in their impact on targeting of civilians, but limited attention has been directed at one of the UNSC’s non-violent means of intervention, namely sanctions.

The use of sanctions as a policy tool increased substantially after the end of the Cold War, and the 1990’s has consequently been called The Sanctions Decade. Sanctions was, and are still, used as a non-violent tool for conflict resolution and enforcement of international legal norms (Cortright & Lopez, 2000:1-2; Radtke & Jo, 2018:759). As a matter of fact, sanctions are one of the main tools with which the UNSC react to international crises (Wallensteen & Grusell, 2012:207), constituting a prominent feature of the international relations landscape (Farrall, 2007:3). The practice of sanctions has been changing during the last decades, and as of today, most of the imposed sanctions are no longer comprehensive\(^2\) but targeted. These targeted sanctions are often designed to affect particular entities, including individuals, organizations and companies. The evolving nature of sanctions has opened up for new research on their implications (Eriksson & Wallensteen, 2015:1389-1390), and scholars now has the possibility of analyzing sanctions’ effects on a range of different targets. Between 1990 and 2018, the UNSC imposed sanctions on 28 rebel groups in 13 civil wars as a means to intervene in these conflicts. It has been contended that these sanction measures were effective

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\(^1\) Terms such as violence against civilians, one-sided violence, violence against non-combatants and targeting of civilians will be used interchangeably throughout the paper.

\(^2\) Comprehensive sanctions are imposed on entire states, targeting the import and export of close to all commodities (Farrall, 2007:4).
in decreasing conflict intensity (Radtke & Jo, 2018:759, 771), but the effect on violence against civilians remains unexplored.

Given the fact that sanctions will continue to be used as a political tool aiming to reduce armed conflicts around the world (Radtke & Jo, 2018:760), it is of value to further disentangle what effects sanctions may have on conflict dynamics, going beyond the focus on conflict intensity. Scholars have questioned if the results of sanctions warrants their costs (Hufbauer & Oegg, 2000:11), and there is yet no consensus on the matter as the debate is characterized by various contradictory results. In order to contribute to the contemporary literature on violence against civilians and sanction effectiveness, the purpose of this thesis is to explore the relationship between imposed sanctions and targeting of civilians. More specifically, this thesis aims to explore what effects sanctions have on rebel groups’ use of violence against civilians, and the research question for the present paper is: Is there a relationship between sanctions imposed on rebel groups and their use of violence against civilians?

Based on theories of conflict dynamics and strategic choice, the introduction of sanctions is expected to increase levels of violence against civilians conducted by rebel groups active in civil war. Using data on actors active in intrastate armed conflict between 1992 and 2014, the hypothesis is supported by the empirical analysis. This has important implications for the field of peace and conflict studies, but also for policymakers and the literature on sanctions’ effects on armed conflict.

This thesis unfolds in five sections. Following this introduction, previous research, conceptual definitions and a theoretical argument will be presented. Section three describes the research design, including method of choice and operationalization of independent, dependent and control variables. Section four consists of empirical findings and analysis, and the final section entails the conclusion of the study.

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3 For purposes of clarity, the term intrastate armed conflict or civil war is used when referring to both intrastate and internationalized intrastate armed conflicts. Intrastate being “[a] conflict between a government and a non-governmental party, with no interference from other countries” (PCR, n.d.) and internationalized intrastate “[an] armed conflict between a government and a non-governmental party where the government side, the opposing side, or both sides, receive troop support from other governments that actively participate in the conflict” (PCR, n.d.).
2. THEORY AND PREVIOUS RESEARCH

2.1. Previous Research

Even though wartime atrocities often are portrayed as senseless or irrational, the conception of violence against civilians as a strategic choice rather than an undeliberate action is common in the field of peace and conflict studies (Salehyan et al., 2014:634). Hence, there are a number of studies examining different strategic settings and reasons for why rebel groups chose to target non-combatants. For example, scholars have argued that the use of violence against civilians should be examined in relation rebel groups’ performances on the battlefield, and it has been found that rebels often target civilians to a larger extent when they fare badly in battles against the state they are opposing. In this instance, violence against civilians is considered an alternative strategy used by insurgencies to inflict costs on their opponent as it creates disorder and delegitimization of the opposing actor(s) (Hultman, 2007:206-210). Furthermore, violence against civilians has been examined in relation to actors’ capability to control markets, resources or territory, and it has been found that weaker rebel groups often conduct higher levels of violence against civilians in comparison to stronger rebel groups in this instance, as they use violence in order to increase civilian support by coercion (Wood, 2010:601). In line with this, Weinstein (2007:203) has argued that resource endowments shape the organizational structure of rebellions, as larger resource endowments enable groups to provide positive incentives for civilian support. Smaller resource endowments, however, may lead to the use of violence in an attempt to require both support and resources by using force. The relationship between armed intervention and civilian victimization has also been studied, and it has been found that rebel groups fighting governments supported by armed interventions are more prone to use high levels of one-sided violence as a war strategy (Wood et al., 2012:647). However, little attention has been directed at violence against civilians conducted by armed groups facing non-violent interventions such as sanctions.

The debate on sanctions has been characterized by strong and diverging opinions over the last decade. Some scholars have argued that economic sanctions very rarely succeed and that they first and foremost inflict large humanitarian costs on populations (Pape, 1997:111), whilst others have found that sanctions indeed can curtail warring actors by targeting their economic assets and fighting capacities (Radtke & Jo, 2018:771). These two diverging perspectives on sanctions presumably reflects the reform of sanctions that has been done by the UNSC, which now targets specific groups, individuals or companies rather than
whole states. It is however noteworthy that scholars have argued that this new type of targeted sanctions likewise may have unintended consequences such as higher amounts of corruption and human rights violations, as targets seeks alternate ways to operate (Elliott, 2016:183). Previous literature on sanctions has further examined the effect of threats and imposition of sanctions on governments’ use of violence, and found that sanctions may increase conflict intensity in the short term either as a consequence of change in war tactic or sanction ineffectiveness (Hultman & Peksen, 2015:1334-1335). Moreover, scholars have shown that sanctions targeting governments are likely to be followed by increased political terror and integrity rights violations by the target in an attempt to prevent defection of supporters due to declining economic conditions (Wood, 2008:489, 509). On the more encouraging side, studies have found that sanctions can have positive effects on actors’ decisions to enter negotiations, arms embargoes being the most effective sanction type in this instance (Strandow, 2006:3). In addition to this, studies have found that sanctions can be effective in shortening the duration of civil wars (Escribà-Folch, 2010:140), whilst others have found that this type of policy tool can be effective in weakening rebel groups, creating favorable conditions for conflict resolution (Radtke & Jo, 2018:771). As aforementioned, the impact of sanctions on rebel groups’ use of violence against civilians has however received limited attention.

In sum, both violence against civilians and sanction effects have been researched from different angles over the last decades. The literature on violence against civilians is abundant, but little attention has been directed at the relationship between sanctions and civilian abuse. Whilst scholars have investigated how sanctions effect states’ violent behavior against civilians, the effects of sanctions on violence perpetrated by rebel groups have received limited attention. In order to fill this empirical and theoretical gap, the following sections introduce three conceptual definitions of core concepts as well as a theoretical argument, describing how sanctions may affect rebel groups’ targeting of civilians in intrastate armed conflict.

2.2. Conceptual Definitions
There is no consensus on how to define sanctions in the literature on international relations, but scholars have contended that the term ‘sanction’ often is used to refer to “[...] a wide array of actions, taken for a variety of purposes, by a range of actors against a variety of targets”

4 The humanitarian costs that were caused by sanctions on Iraq created an awareness of how sanctions can have severe negative effects on civilian populations. Since then, the UNSC decisively moved away from sanctions aimed at entire states (Biersteker et al., 2016:1).
Motives for these actions can for example be to respond to a breach of international legal norms or to prevent such breaches. The actions can be of both military and non-military nature, and the purpose is often of punitive manner, with the goal of changing the behavior of the target by coercion or punishment. The range of actors who can impose sanctions on the international level entails individual states, groups of states, the international community in whole, as well as non-state actors. A sanction imposed by a majority of states is often referred to as collective or universal sanctions, terms which have been used to describe sanctions imposed by the UNSC. The possible targets of sanctions at the international arena are groups of states, single states, non-state actors and individuals (Farrall, 2007:6-8). In line with this but more concise, sanctions have been defined as “actions initiated by one or more international actors (the "senders") against one or more others (the "receivers") with either or both of two purposes: to punish the receivers by depriving them of some value and/or to make the receivers comply with certain norms the senders deem important” (Galtung, 1967:379).

It is however of value to be more precise when conceptualizing sanctions (Galtung, 1967:381), and this study hence focuses on certain parts of this complex intersection of actors, actions and targets. Only non-violent sanctions with a goal of behavior change is relevant for the forthcoming theoretical argument. The aim of sanctions must hence be of punitive manner, but not include any physical force. The focus is also on universal sanctions, employed by a majority of states. Lastly, the aim of the sanctions must be to decrease or cut off military or economic resources of the target. It is noteworthy that comprehensive sanctions are not included in the conceptual definition of sanctions. In sum, a sanction in this thesis is considered as a non-violent measure of punitive manner imposed by a majority of states on non-state actors’ military or economic resources. These measures may for example restrict or cut off the trade with weapons and resources, or freeze economic assets (Biersteker et al., 2016:25).

The dependent variable of interest is violence against civilians. This term includes multiple types of violence directed at non-combatants such as mass killings, abuse, genocide and politicide, terror, rape and sexual violence (Hultman, 2014:290). Kalyvas (2006:19 in Hultman, 2014:290) has referred to this as a conceptual minefield, and it is thus important to establish what is included in the conceptualization of violence against civilians in this particular study. Some concepts of violence against civilians include violence in broad manner, whilst others focus on only lethal violence (Hultman, 2014:290). For example, violence against

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5 Targeting entire states (Farrall, 2007:4).
civilians has been conceptualized as civilian abuse, including acts such as maiming, sexual assault and other degrading practices (Humphreys & Weinstein, 2006:431), encompassing a broad range of non-lethal violent actions. Including only lethal violence, genocide requires a more complex definition, which often requires that there is some form of intent to destroy entire or parts of groups (Harff, 2003:58). In contrast, mass killings or massacres only concern the killing of people, regardless the intention of the perpetrator (Sullivan, 2012 in Hultman, 2014:290). However, this thesis conceptualizes violence against civilians as one-sided violence, namely the deliberate use of violence by a combatant against civilians resulting in death (Eck & Hultman, 2007:235). Civilians in this instance are “[…] unarmed people who are not active members of the security forces of the state, or members of an organized armed militia or opposition group […]” (PCR, n.d.), thus not actively partaking in the conflict in question. In sum, violence against civilians in this thesis only includes the intentional and lethal violence used by armed actors against civilians. Indirect deaths resulting from for example crossfire or malnutrition are not included.

The forthcoming theoretical framework introduces a causal mechanism including large emphasis on rebel groups’ resources, and it is therefore necessary to clarify what is included in this concept. Insurgencies’ resources entails a plethora of things, such as finance and weapons (Fearon, 2004:284), but also natural resources (Conrad et al., 2019:592) and recruits (Eck, 2010:9). However, Hazen (2013:49-50) has argued that there are three main types of resources relevant for rebel groups; military, economic and political. Military resources entail arms and ammunition, communications equipment, training and soldiers. Economic resources include financial means to purchase arms and pay soldiers, opportunities for looting, trade and barter, agricultural production, and profits made from the trade with natural resources. Political resources are less quantifiable and includes information, diplomatic support, safe havens, and sometimes political legitimacy. Nevertheless, military and economic resources has been argued constitute the core of insurgencies war-fighting capacities (Hazen, 2013:53-54), and political resources are therefore not included in this conceptualization and thesis. In sum, the conceptual definition of rebel groups’ resources in this paper is the military and economic resource endowments on which insurgencies sustain their war-fighting capacities.

2.3. Theoretical Argument: Sanctions’ Effects on Violence Against Civilians

Arendt (1970, in Wood, 2010:602) argues that violence is instrumental by nature, and that it hence is rational to the extent that it succeeds in achieving the goals of belligerents. When applying this assumption to armed conflict and one-sided violence, it suggests that warring
actors use violence against civilian populations with the objective of improving their position within the current strategic setting (Wood, 2010:602). Accordingly, theories explaining variations in levels of violence against civilians are often centered around certain strategic conditions which either favor or impede violent behavior against non-combatants as a war tactic (Humphreys & Weinstein, 2006:430; Weinstein, 2007:203). One major part of the strategic setting in civil war are often considered to be actors’ access to resources (Wood, 2010:601), since they constitute the basis on which strategic choices can be made by dictating what is physically achievable (Lockyer, 2010:96).

Indeed, all rebel groups active in civil wars not only must build, maintain, and deploy fighting units but also solicit material resources in order to sustain their fighting (Humphreys & Weinstein, 2006:430). For example, variations in access to weapons is highly determinant for the form and intensity of civil war (Marsh, 2007:54), and economic resources are crucial in the sense that they provide financial ability to purchase necessary resources (Hazen, 2013:56). Fluctuations in insurgencies’ access to these core resources are therefore expected to be followed by a change in military strategy, as possible choices of tactics either increases or decreases (Wood, 2010:605). Thus, warfare in civil war becomes dynamic, changing considerably over both time and space (Lockyer, 2010:93).

Sanctions have the possibility to alter conflict dynamics by targeting the core parts of rebellions’ resource base (Radtke & Jo, 2018:762). For example, sanction measures such as arms embargoes can affect the military resources of rebel groups, whilst asset freezes or resource bans can curtail economic income (Biersteker et al., 2016:25). The effect of sanctions on rebel group capabilities were for example evident when UNITA was sanctioned in the Angolan civil war. Sanctions on diamond exports – one of the group’s largest sources of income – led to financial and territorial losses, which ultimately decreased the war-fighting capacities of the group (Radtke & Jo, 2018:768-770). As sanctions are implemented and access to military and economic resources start to decrease, insurgencies’ ability to purchase arms and equipment, pay members and ensure civilian support is likely to be diminished. The capabilities of rebel groups are thus likely to be decreased, which in turn leads to an altering of the strategic choices available (Lockyer, 2010:96).

Groups lacking or losing control over markets, resources or territory become more prone to use low-cost strategies in their pursuit for civilian support and resources (Wood, 2010:603-604). One of the low-cost strategies available for insurgencies is often violence, which is substantially cheaper than selective repression or the provision of positive incentives (Kalyvas, 2006:165 in Wood, 2010:603). Weak or weakening rebel groups therefore has bigger
incentives for victimizing the civilian population as a war strategy, and violence becomes a tool of recruitment, resource acquisition and control (Wood, 2014:462). Hence, the introduction of sanctions on rebel groups leading to decreased capabilities are likely to be followed by an increase of one-sided violence as the group in question seek alternate ways of gaining resources and support (Weinstein, 2007:347-348). Violence against civilians has been called a war strategy used by belligerents in their attempt to control a changing conflict landscape (Wood et al., 2012:648), and this theory poses that sanctions – by changing the conflict landscape – will be followed by an increase in levels of one-sided violence.

To summarize the theoretical argument, it is contended that sanctioned rebel groups will experience decreased capabilities and face bigger incentives of using violence against civilians as a tool of acquiring resources and/or coercing support. The observable implication from this argument is that the introduction of sanctions on rebel groups should be correlated with increased numbers of civilians killed by the rebels. The causal mechanism is outlined in Figure 1 below.

![Figure 1: Proposed causal mechanism](image)

Based on the theoretical argument outlined above, the testable implication and proposed hypothesis is: “The introduction of sanctions on rebel groups increase their use of one-sided violence” (H1). This will be tested empirically and analyzed in the following sections.

2.4. Scope Conditions

In order for the outlined theory and hypothesis to operate, there are some important scope conditions to be made clear. Firstly, an important aspect of the theory is the balance of capabilities between armed actors. Lockyer (2010:91) has argued that the distribution of power in civil wars are determinant in shaping warfare dynamics, and armed actors can thus be weak or strong in both absolute and relative terms, relative being the actor’s strength vis-à-vis its adversary. The natural state of the distribution of power in civil war is often in the state’s favor,
since it by default is the actor which controls the coercive instruments of the state, creating favorable conditions for both resource extraction and military capabilities (Lockyer, 2010:95-96). Hence, the outlined theory can be expected to be best applicable to rebel groups fighting states, and not other insurgencies or civilians only as this would yield different relative power distributions. In addition to this, the logic of balance of capabilities makes the theory outlined above only applicable to insurgencies and not states, since they can be assumed to be strategically stronger when sanctioned. Therefore, a state’s reaction on sanctions requires another theoretical framework and study. Previous studies have done research on both sanction imposition and sanction threats (see for example Hultman & Peksen, 2015), but the theoretical framework for this thesis is only applicable to sanction imposition, since it is the _de facto_ altering of resources that triggers the outlined causal mechanism.
3. RESEARCH DESIGN

3.1. Sample and Comparative Method
The timespan for the forthcoming analysis ranges from 1992 to 2014, as data on the independent variable is available for these years. The UCDP Battle-Related Deaths Dataset (Pettersson et al., 2019) is used to identify all active intrastate armed conflicts between 1992 and 2014, and thus all active rebel groups opposing a government within this timespan. A conflict in this instance is defined as a “[...] contested incompatibility that concerns government and/or territory over which the use of armed force between two parties, of which at least one is the government of a state, has resulted in at least 25 battle-related deaths in one calendar year” (Pettersson, 2019:3). The categories of internal and internationalized internal conflicts (Pettersson, 2019:6) are included in the sample, and conflicts between two states are excluded. It is noteworthy that any rebel group fighting more than one government in one year is removed from the sample, since these groups arguably face a different strategic setting than those fighting solely one government. The UCDP Battle-Related Deaths Dataset only includes observations of years which have 25 or more observed battle-related deaths (Pettersson, 2019:3), and the data is therefore expanded, adding all years between first and last recorded active year per dyad. The dataset used for measuring the dependent variable does not include any information on events occurring in Syria (Högbladh, 2019:3), and dyads located in this country are thereby excluded from the analysis. When these conditions are applied to the dataset, the sample relevant for analysis includes 1 201 observed years and 231 rebel groups. The unit of analysis is rebel groups, and the unit of observation is rebel group-year. This enables a focused analysis of rebel groups’ use of one-sided violence in relation to sanction measures.

In order to examine the relationship between the independent and dependent variables while controlling for possible confounding factors, Ordinary Least Squares (OLS) regression is used in a number of models presented in section 4. Regression analysis is suitable since it estimates the direction and magnitude of the relationship between the independent and dependent variables, but also because additional control variables can be added to the analysis (Kellstedt & Whitten, 2018:193). The relationship between sanctions and one-sided violence is hence tested in both bivariate and multivariate regression models. Since all rebel groups active

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6 The data on UN sanctions is available up until 2013, but since the variable is lagged one year (see 3.2. Independent Variable: Sanctions), 2014 is included.
7 Version 19.1 (Pettersson et al., 2019).
8 This is also crucial in order to capture any years where rebel groups have directed violence against civilians exclusively.
in intrastate armed conflicts within the timespan are included, the comparison is carried out both over time and over different groups.

3.2. Independent Variable: Sanctions
As aforementioned, sanctions are conceptualized as a non-violent measure of punitive manner imposed by a majority of states on non-state actors’ military or economic resources. The operational definition of this concept is more specified, in order to yield a measurement that is as closely linked to the concept and theory as possible.

The operational definition of Sanctions includes UN targeted sanctions only, which is defined as a “[...] legally binding restrictive [measure] applied by the UN Security Council (under Chapter VII of the Charter) to coerce targets to change their behavior, constrain them from engaging in proscribed activity, and/or signal a violation of international norms” (Biersteker et al., 2018:407). The focus on UN targeted sanctions exclusively is due to the fact that it is only this type of sanction that is universally applied and legally binding under Chapter VI of the UN Charter, meaning that all 193 member states are required to implement the decided measures (Biersteker et al., 2018:405). Therefore, sanctions that are not applied by the UNSC are not considered valid for this thesis.

As Hultman and Peksen (2015:1318) has argued, dichotomous variables on sanctions fails to capture the extent of costs they inflict, and the variable thus entail more specific values. Sanctions is measured as an ordinal variable, ranging from no sanctions (0) to extensive sanction (4). A rebel group is considered as sanctioned when it is subjected to a targeted sanction such as an asset freeze and not when the entire state in which it operates is sanctioned. The data is derived from the UN Targeted Sanction Qualitative Dataset, which includes information on UN sanctions from 1991 to 2013 (Biersteker et al., 2018). The codebook and logbook for the gathering of data for this variable is available in Appendix A and B, and a summary of conditions for sanctions to be valid for this thesis is presented in Figure 2 below. The sanction measures included in the data which are counted are 1) arms embargoes, 2) asset freezes and 3) resource bans. Arms embargoes are considered to affect military resources of rebel groups, whilst asset freezes and resource bans considered to affect economic resources. The variable used in the regression models is “sanc_total”, which is a composite measure counting all imposed sanction measures on rebel groups per year.

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9 In the regression models, the variable is numeric, and is hence treated as a ratio variable. Since one cannot assume linearity between the scale steps, an additional test is included where the variable is dichotomous.
10 Comprehensive sanctions are excluded.
11 See Appendix A for a detailed description of variable scores.
This variable is lagged, since it can be expected that the costs of sanctions are felt by the target not directly but after a period of time (Hultman & Peksen, 2015:1324). Lagging the variable one year (t-1) yields observations of sanctions effects’ one one-sided violence one year after the implementation. In the sample, the lag for sanctions covers 45 years of observation.

3.3. Dependent Variable: One-Sided Violence

The dependent variable is One-sided Violence, which is conceptualized as the deliberate use of violence by a combatant against civilians resulting in death (Eck & Hultman, 2007:235). The data on this variable is derived from the UCDP Georeferenced Dataset, which is an event dataset recording several types of violence, including one-sided violence (Sundberg & Melander, 2013). An event in this dataset is defined as “[a]n incident where armed force was used by an organised actor against another organized actor, or against civilians, resulting in at least 1 direct death at a specific location and a specific date” (Högbladh, 2019:4). The variable “deaths_civilians” is used to measure instances of one-sided violence as it includes the numbers of civilians killed per event (Högbladh, 2019:11). The dataset includes observations on an event-level and is therefore aggregated to the actor-year level in order to be compatible the rest of the data and unit of analysis of the study. One-Sided Violence is a ratio variable, measuring amounts of one-sided violence perpetrated by rebel groups per year. One scale step equals one civilian being killed. In the sample, the average number of one-sided violence per year is approximately 33. However, there is a great variation in the values, with a maximum of 1171 and a minimum of 0. As shown in Figure 3, the data on this variable is not normally distributed in the sample, and there is a large share of zero values. Following established practice (Lacina, 2006:284), the natural log of one-sided violence is used in the regression models since this creates more normally distributed values which is important when estimating OLS regression models (Kellstedt & Whitten, 2018:208).

Figure 2: Conditions for sanctions to be considered valid for this thesis

<table>
<thead>
<tr>
<th>Target one or more non-state actor(s)</th>
<th>Affect military or economic assets of the target</th>
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<td>Include restraining measures</td>
<td>Imposed by the UNSC</td>
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Version 19.1. (Högbladh, 2019; Sundberg & Melander, 2013)
3.4. Control Variables

In addition to the independent and dependent variables, three control variables are included in the analysis. These focus on conflict and country characteristics, which all three possibly may influence both levels of one-sided violence and the likeliness of introduction of sanctions on rebel groups.

The first control variable is *Conflict Intensity*, which is included since it has been argued that high-intensity conflicts are more likely to be subject to UN targeted sanctions (Biersteker et al., 2018:12). Conflict intensity is also likely to be correlated to one-sided violence as one can expect to see higher levels of one-sided violence in conflicts with higher amounts of total violence (Eck & Hultman, 2007:244). This control variable is measured according to UCDP Battle-Related Deaths Dataset\(^{13}\) (Pettersson et al., 2019), using the category of “bd_best”. This variable measures fatalities according to the dataset: “[…] those deaths caused by the warring parties that can be directly related to combat” (Pettersson, 2019a:3) and instances of starvation or other consequences of armed conflict are hence not included. It is however important to underline that collateral damage is included in this measure. This variable also measures both military and civilian causalities, in order to account for the total conflict intensity of the conflict in question. The deliberate targeting of civilians is not included (Pettersson, 2019:3). The values of *Conflict Intensity* are skewed with a large share of zero

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\(^{13}\) Version 19.1 (Pettersson et al., 2019)
values, and the natural log of the variable is therefore used in the forthcoming analysis in order to yield more normally distributed values.

The second control variable included is Population, since the size of a country can affect both one-sided violence and willingness of the UNSC to impose sanctions (Hultman & Peksen, 2015:1325). The data on this variable is derived from The World Bank (2019), which provides numbers on total population per country and year, using the midyear estimate. The operational definition of population in this dataset is “[…] all residents regardless of legal status or citizenship” (The World Bank, 2019). The values of this variable are measured according to the population of the active state in the dyad in question. The natural log of Population is used, since the values are skewed.

The third control variable is Regime Type. This variable is included since it has been argued that non-state actors use more one-sided violence when fighting democratic or semi-democratic states (Hultman, 2012:164), but also as regime type and regime change has been found to affect the likelihood of civil war outbreak (Hegre et al., 2001:42) and duration (Brandt et al., 2008:427, 431). The outbreak and duration of civil war is likely to affect the decisions of the UNSC, and regime type may therefore also affect the imposition of sanctions. The data for this variable is derived from the Polity IV Dataset14, which entails data on “[…] general institutionalized authority traits that characterize a distinct polity […]” (Gurr et al., 2019:11). The variable used in this paper is “polity2”, which is a composite measure including scores on democracy and autocracy in the given country and year, thus representing the polity score when combining the democratic and autocratic aspects of the government. This variable also measures years which has been deemed as anarchic as zero, and gives mean polity values to years which has been given the status “transition” in order to facilitate time-series analysis (Gurr et al., 2019:16-17). Regime Type is an interval variable, ranging from full autocracy (-10) to full democracy (10).

3.5. Notes on Reliability and Validity
It has been established that UN sanctions often are accompanied by states’ own unilateral sanction regimes, as well as sanctions from the European Union (EU) and the United States (US). These regimes often use the UN’s Chapter VII power to over comply with the UN targeted sanction in place, imposing harsher unilateral sanctions on top over their UN

obligations. It is therefore noteworthy that the potential over compliance is unmeasured, but that it can be part of the explanation of the observed effects (Radtke & Jo, 2018:761). There are also other sanction types than UN targeted sanctions (Charron & Portela, 2016:117), and the validity of a measurement including UN sanctions can therefore be discussed. However, the available data and time span of the research process required a narrow focus, and UN sanctions were chosen due to their high legitimacy and status in the international community (Biersteker et al., 2016:12), but also since this type of sanctions are considered closely linked to the conceptualization of sanctions in this thesis.

The reliability of the data on sanctions must also be discussed, as it was compiled for the specific purposes of this thesis. A quantitative dataset was constructed, building solely on the UN Targeted Sanctions Qualitative Dataset (Biersteker et al., 2018). The information was thus not triangulated, due to time limitations. The codebook and logbook including coding rules and descriptions of certain cases are available in Appendix A and B in order to enhance reliability and transparency, but since these can be interpreted differently by different persons, the reliability of the dataset can be questioned (Kellstedt & Whitten, 2018:113). Those sanction episodes which required extensive interpretation in the data collecting process is included in the logbook in Appendix B. Despite the issues with regards to reliability, the construction of this dataset was crucial in order to measure sanctions in as close relation to the concept and operationalization as possible.

The operationalization of the dependent variable, One-Sided Violence, can also be discussed. Firstly, there are other types of civilian abuse that can increase or decrease as a consequence of sanction implementation. The variable only captures lethal violence, but not all violence is lethal. For example, it can be expected that forced recruitment and looting increases as rebel groups become sanctioned, but this type of violence is not included in the analysis. However, the data on one-sided violence in the UCDP Georeferenced Dataset (Sundberg & Melander, 2013) is highly reliable and was therefore the best choice when considering the time-frame of the research process. Furthermore, the operationalization of this variable can be considered valid in relation to the conceptualization of violence against civilians outlined in section 2.2, as only lethal violence is included.

3.6. Source Criticism
The dataset used in the forthcoming analysis is compiled of information from six datasets; UN Targeted Sanctions Qualitative Dataset (Biersteker et al., 2018), UCDP Georeferenced Dataset (Sundberg & Melander, 2013), UCDP Battle-Related Deaths Dataset (Pettersson et al., 2019),
World Bank Population Data (The World Bank, 2019) and the Polity IV Dataset (Gurr et al., 2019). These datasets are widely used and publicly available, but some of them should be discussed in terms of their caveats and possible biases.

The UN Targeted Sanction Qualitative Data (Biersteker et al., 2018) was used in order to create a dataset including information on sanctions targeted on non-state actors, and the data used in the analysis is thus secondary. The UCDP Georeferenced Dataset and the UCDP Battle-Related Deaths Dataset is also built on secondary sources as the information for coding of deaths are reliant on sources such as news outlets and reports (Högbladh, 2019:12; Pettersson, 2019:4), and it cannot be ruled out that there has been more deaths than what is captured by available media outlets. However, it is unlikely that there are substantially less fatalities than the best estimate of the datasets (Pettersson, 2019:4). The World Bank Population Data (2019) may also include errors and undercounting, stemming from limitations in communication and availability of data. In sum, it is noteworthy that these three datasets are based on sources which have been interpreted by coders, and that the data available to these coders were limited in some instances.

The Polity IV Dataset (Gurr et al., 2019) also have some aspects that must be discussed. Firstly, when coding polity scores for countries, two of the variables measuring the polity includes questions of political violence and civil war. As (Vreeland, 2008:402-403) has argued, this makes it problematic to use the Polity Data in studies on civil war, since the civil war itself might be reflected in the polity scores. Any conclusion on certain regime types and its effect on aspects of civil wars should hence be interpreted with caution. However, the Polity data was deemed the best option when considering the scope of this thesis as it is widely used (Gurr et al., 2019:1) and easily accessible.
4. FINDINGS AND ANALYSIS

This section entails three parts; descriptive statistics introducing the data used for analysis, followed by a number of OLS regression models testing the proposed hypothesis (H1), as well as a robustness test including sanctioned governments. The section is concluded with a discussion of the results in light of the theoretical argument and hypothesis (H1), as well as notes on alternative explanations and limitations of the study.

4.1. Descriptive Statistics

The sample used for the analysis ranges from 1992 to 2014 and includes 1 201 observed years. As shown in Table 1, all variables but Regime Type includes information for the full sample. The reason for the 34 missing values in this variable is due to missing data in the Polity IV Dataset (Gurr et al., 2019). The reason for why One-Sided Violence(ln) has a negative mean and minimum value is due to the log transformation of the variable. Since observations must entail values bigger than zero in order to be log transformed, a constant of 0.01 was added to all values before transformation. Taking the natural log of 0.01 results in negative values, which hence is included in the analysis. However, this is not an issue for OLS, and estimated effects of independent and control variables on One-Sided Violence(ln) is thus still possible and relevant. It is however noteworthy that none of the logged values are directly interpretable in their original metric. The low mean on Sanctions is evident of how rarely occurring it is in the sample, with only 45 observed sanctioned years.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>St. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-Sided Violence(ln)</td>
<td>1201</td>
<td>-1.44</td>
<td>3.96</td>
<td>-4.61</td>
<td>7.07</td>
</tr>
<tr>
<td>Sanctions</td>
<td>1201</td>
<td>0.0674</td>
<td>0.365</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Population(ln)</td>
<td>1201</td>
<td>17.5</td>
<td>1.6</td>
<td>13.1</td>
<td>21</td>
</tr>
<tr>
<td>Conflict Intensity(ln)</td>
<td>1201</td>
<td>3.78</td>
<td>2.41</td>
<td>0</td>
<td>9.40</td>
</tr>
<tr>
<td>Regime Type</td>
<td>1167</td>
<td>1.86</td>
<td>5.82</td>
<td>-9</td>
<td>10</td>
</tr>
</tbody>
</table>

Table 1: Descriptive statistics on variable values included in the sample
4.2. Testing the Hypothesis

The aim of this paper is to examine whether there is a relationship between sanctions and one-sided violence perpetrated by rebel groups. The theoretical argument outlined in section two argued that sanctions, by decreasing rebel groups’ capacities, will be followed by change in tactics and an increase in one-sided violence. The proposed hypothesis was: “The introduction of sanctions on rebel groups increases their use of one-sided violence” (H1). In order to test this hypothesis, bivariate and multiple OLS regression models are presented in this section.

The initial analysis of Sanctions effects on One-Sided Violence(ln) includes sanctions as an ordinal variable ranging from 0 to 3. Hence, the estimate presented in Table 2 represents the effect of a one-unit increase in Sanctions\textsuperscript{15} on One-Sided Violence(ln). This is – due to the log transformation – however not directly interpretable in numbers of civilians killed. In model 1 presented in Table 2, the relationship between Sanctions and One-Sided Violence is tested. The estimate shows that there is a positive relationship between the variables. When interpreting the estimate according to the log transformed dependent variable, it shows that

\textsuperscript{15} Sanctions is treated as a ratio variable in the regression models.

| Ordinary Least Squares (OLS) Regressions on One-Sided Violence in Civil Wars, 1992-2014 |
|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Dependents variable: | Sanctions(t-1) | Conflict Intensity(ln) | Regime Type | Population(ln) |
| One-Sided Violence(ln) | (1) | (2) | (3) | (4) | (5) |
| Sanctions(t-1) | 0.289 | 0.259 | 0.712** | 0.403 | 0.839*** |
| | (0.313) | (0.277) | (0.339) | (0.273) | (0.297) |
| Conflict Intensity(ln) | 0.763*** | 0.750*** | 0.756*** | (0.042) | (0.041) |
| Regime Type | 0.201*** | 0.166*** | (0.019) | (0.018) |
| Population(ln) | 0.439*** | 0.190*** | (0.062) | (0.066) |
| Constant | -1.457*** -4.336*** -1.806*** -11.995*** -7.915*** | (0.116) | (0.189) | (0.118) | (1.098) | (1.152) |
| Observations | 1,201 | 1,201 | 1,167 | 1,201 | 1,167 |
| R\textsuperscript{2} | 0.001 | 0.217 | 0.087 | 0.248 | 0.307 |
| Adjusted R\textsuperscript{2} | -0.0001 | 0.216 | 0.086 | 0.247 | 0.304 |

*Note: Standard errors in parentheses.
*p<0.1; **p<0.05; ***p<0.01

Table 2: OLS regression models on independent, dependent and control variables
there is an estimated 34 percent\textsuperscript{16} increase in one-sided violence per one-unit increase in sanctions. However, this is not statistically significant, and the null hypothesis can therefore not be discarded according to model 1. It is also noteworthy that the low R\textsuperscript{2} statistic shows that the explanatory power of the model is weak.

In order to control the relationship between the independent and dependent variables including eventual confounding factors, additional variables are included in models 2 to 5. The direction of the relationship between Sanctions and One-Sided Violence(ln) remains when adding the control variable Conflict Intensity(ln) in model 2, but the magnitude decreases somewhat. In model 3, Regime Type is added, and the impact of sanctions increases and becomes statistically significant at the 95 percent confidence level. In this model, the effect of sanctions on rebel groups’ use of one-sided violence is estimated to be an increase of approximately 104 percent per added sanction measure. The explanatory power of model 3 is however low, as shown by the R\textsuperscript{2} statistic. Controlling for Conflict Intensity(ln) and Population(ln) in model 4, the direction of the relationship between Sanctions and One-Sided Violence(ln) remains positive but is not statistically significant. The explanatory power of the model is however increased. In model 5, all control variables are included, and the relationship between Sanctions and One-Sided Violence(ln) is positive and statistically significant at the 99.9 percent confidence level. It is estimated that One-Sided Violence(ln) increases approximately 130 percent per one-unit increase in Sanctions, controlling for Conflict Intensity(ln), Regime Type and Population(ln). This model is also the one with the strongest explanatory power according to the R\textsuperscript{2} statistic.

It is also of value to address the impact of the control variables on One-Sided Violence(ln) in model 5. Conflict Intensity is log transformed, and the estimate on its impact is interpreted as an approximate increase of 3 percent One-Sided Violence per 10 percent increase in Conflict Intensity, controlling for the included variables.\textsuperscript{17} An increase of 10 percent in Population is associated with an approximate increase of 0.7 percent conducted One-Sided Violence when controlling for all other variables. According to the estimate of Regime Type, a one-unit increase on the polity scale is associated with an 18 percent increase in One-Sided Violence when controlling for Sanctions, Conflict Intensity(ln) and Population(ln). In sum, all

\textsuperscript{16} (\exp(0.289)-1)\times100\approx34. The same formula is used for all interpretation of estimates where only One-Sided Violence is log transformed.

\textsuperscript{17} \exp((0.756)\times\log(1.1))\approx1.03. The same formula is used for all interpretations of estimates where both One-Sided Violence and the independent variable in question are log transformed.
control variables have a positive and statistically significant relationship with the dependent variable in model 5.

4.2.1. Additional Test: Presence and Absence of Sanctions

### Table 3: Additional test with Sanctions as dichotomous variable

<table>
<thead>
<tr>
<th></th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
<th>(9)</th>
<th>(10)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sanctions(d)(t-1)</strong></td>
<td>1.236**</td>
<td>0.859</td>
<td>2.304***</td>
<td>1.240**</td>
<td>2.172***</td>
</tr>
<tr>
<td></td>
<td>(0.600)</td>
<td>(0.532)</td>
<td>(0.643)</td>
<td>(0.524)</td>
<td>(0.564)</td>
</tr>
<tr>
<td><strong>Conflict Intensity(ln)</strong></td>
<td>0.761***</td>
<td>0.747***</td>
<td>0.750***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.042)</td>
<td>(0.041)</td>
<td>(0.040)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Regime Type</strong></td>
<td></td>
<td></td>
<td>0.204***</td>
<td>0.168***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.019)</td>
<td>(0.018)</td>
<td></td>
</tr>
<tr>
<td><strong>Population(ln)</strong></td>
<td></td>
<td></td>
<td></td>
<td>0.447***</td>
<td>0.200***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.062)</td>
<td>(0.066)</td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>-1.484***</td>
<td>-4.342***</td>
<td>-1.845***</td>
<td>-12.142***</td>
<td>-8.098***</td>
</tr>
<tr>
<td></td>
<td>(0.116)</td>
<td>(0.188)</td>
<td>(0.118)</td>
<td>(1.099)</td>
<td>(1.150)</td>
</tr>
<tr>
<td><strong>Observations</strong></td>
<td>1,201</td>
<td>1,201</td>
<td>1,167</td>
<td>1,201</td>
<td>1,167</td>
</tr>
<tr>
<td><strong>R²</strong></td>
<td>0.003</td>
<td>0.217</td>
<td>0.092</td>
<td>0.249</td>
<td>0.308</td>
</tr>
<tr>
<td><strong>Adjusted R²</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Standard errors in parentheses.

*p<0.1; **p<0.05; ***p<0.01

It can be expected that the impact of Sanctions is non-linear, with a bigger impact going from none to one sanction than one to two sanction measures. Therefore, this section presents regressions where Sanctions is treated as a dichotomous variable. The dichotomous version of the variable – Sanctions(d) – entails values of either absence (0) or presence (1) of one or more sanction(s) in the given year. The results are presented in Table 3.

In models 6 to 10, the relationship between Sanctions(d) and One-Sided Violence(ln) remains positive and increases in magnitude when comparing the estimates to those presented in models 1 to 5. It is also noteworthy that all models but model 7 has statistically significant estimated effects of Sanctions(d) on One-Sided Violence(ln) at the 95 percent confidence level. According to the estimate of Sanctions(d) effect on One-Sided Violence(ln) in model 10, the relationship is positive and increases in magnitude.

---

18 In models 1 to 5, sanctions are treated as a ratio variable despite the fact that equidistance between the scale steps is unestablished.
Violence(ln) in model 10, sanctioned rebel groups conduct approximately 7.8 times more one-sided violence in comparison to non-sanctioned rebel groups, controlling for Conflict Intensity(ln), Regime Type and Population. This is statistically significant at the 99.9 percent confidence level.

4.2.2. Robustness Test: Sanctioned Governments

<table>
<thead>
<tr>
<th>Ordinary Least Squares (OLS) Regressions on One-Sided Violence in Civil Wars, 1992-2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variable: ( \text{One-Sided Violence(ln)} ) (11) (12)</td>
</tr>
</tbody>
</table>
| **Sanctions(d)(t-1)** & 3.723*** & 3.822***  
  (0.817) & (0.798) |
| **Sanctioned Government(t-1)** & -0.615** & -0.363  
  (0.300) & (0.299) |
| **Conflict Intensity(ln)** & 0.753*** & 0.757***  
  (0.047) & (0.046) |
| **Population(ln)** & 0.520*** & 0.279***  
  (0.074) & (0.080) |
| **Regime Type** & 0.143***  
  (0.021) |
| **Constant** & -13.167*** & -9.211***  
  (1.283) & (1.377) |
| **Observations** & 816 | 803 |
| **R\textsuperscript{2}** & 0.292 | 0.330 |
| **Adjusted R\textsuperscript{2}** & 0.288 | 0.326 |

*Note: Standard errors in parentheses.  
*\(p<0.1\); **\(p<0.05\); ***\(p<0.01\)

Table 4: Robustness test including sanctions on governments

As mentioned in the theory section, relative power distributions are important when assessing strategic settings in civil war (Lockyer, 2010:91). It is therefore of interest to assess whether the results hold when controlling for Sanctioned Government in a robustness test, since some cases included in the analysis are dyads where the not only rebel groups but also the government was sanctioned. This robustness test is included since a sanctioned government can be considered as strategically weaker than an unsanctioned government, given that the sanctions were implemented effectively (Hultman & Peksen, 2015:1316). This would then have
implications for the relative power distributions in the conflict, thus possibly affecting levels of one-sided violence conducted by rebel groups. The data for this control variable is derived from the Threat and Imposition of Economic Sanctions (TIES) Dataset\textsuperscript{19} (Morgan et al., 2014), which includes data on both threat and imposition of sanctions from 1945 to 2005. A sanction as defined in the TIES Dataset must “(a) involve one or more sender states and a target state and (b) be implemented by the sender in order to change the behavior of the target state” (Morgan et al., 2014:543). The variable “imposition” is used to control for whether there was any imposed sanctions towards the government in the given year (Morgan et al., 2013:9), and mere threats of sanctions are not included in Sanctioned Government. This variable is lagged one year (t-1) in since it is expected that the impact of sanctions is apparent not directly but after a period of time. The results are included in Table 4.

When controlling for Sanctioned Government, the direction and magnitude of Sanctions(d) effect on One-Sided Violence(ln) remains positive and statistically significant. The impact of Sanctioned Government on rebel groups use of one-sided violence is however negative in model 11 and 12, which indicates that a sanctioned government is correlated with lower levels of civilian abuse by rebel groups, when controlling for all included control variables. This, however, is only statistically significant at the 95 percent confidence level in model 11. It is noteworthy that the sample used in this robustness test is smaller than the one used in the initial and additional tests, due to the fact that TIES only is available up until 2005.

4.3. Analysis and Discussion

All regression models in the previous section estimate positive relationships between the Sanctions and One-Sided Violence(ln), holding included control variables constant. When controlling for Conflict Intensity(ln), Regime Type, and Population(ln), the relationship between Sanctions and One-Sided Violence(ln) is statistically significant, both in the initial and additional tests. The results also hold when controlling for Sanctioned Government in the robustness test. The impact of Sanctions on One-Sided Violence in model 5 is estimated to be an increase of approximately 131 percent per added sanction measure, controlling for the included control variables. When treating Sanctions as dichotomous in model 10, however, it is estimated that sanctioned groups use approximately 7.8 times more one-sided violence in comparison to non-sanctioned groups when controlling for the included control variables. This

\textsuperscript{19} Version 4.0 (Morgan et al., 2014).
difference can be interpreted as quite extensive, but it is noteworthy that the observations of *One-Sided Violence* includes large shares of small values. However, the difference between sanctioned and unsanctioned groups remains evident. These results can be interpreted as in line with Wood (2010:601) who have argued that resource-weak rebel groups are more prone to use violence against civilians as a strategy to gain resources, but also Weinstein (2007:203) who have claimed that low resource access can lead to the use of violence against combatants in order to coerce support.\(^{20}\)

All control variables included in model 5 and 10 have a positive and statistically significant relationship with one-sided violence. This is considered to be in line with the theoretical arguments for the inclusion of the variables. Furthermore, it is apparent that *Regime Type* is a crucial control variable as it makes the relationship between the independent and dependent variables statistically significant. When looking closer on the data, it becomes evident that close to all\(^ {21}\) sanctions were implemented in what the Polity Project (2018) would call anocracies. No sanction measures, however, was implemented on rebel groups active in dyads including what the Polity Project (2018) would call democracies. Hence, whilst the coefficient for *Regime Type* indicates an increase in *One-Sided Violence* per increase in Polity score (becoming more democratic) holding all other variables constant, it cannot be argued that sanctions being imposed on rebel groups fighting democratic countries result in higher levels of one-sided violence.

The robustness test in section 4.2.2. indicates that the results hold when controlling for whether the government active in the dyad was sanctioned in the same year as the rebel group. The models also estimate a negative relationship between *Sanctioned Government* and *One-Sided Violence(In)*, which thus means that rebel groups fighting sanctioned governments use less violence against civilians when controlling for the included control variables. This can be interpreted as in line with Wood et al. (2012) who have argued that military intervention can have impacts on one-sided violence perpetrated by rebel groups, decreasing levels of violence when the government is targeted by the intervention.

Taking all models into consideration, it is argued that the proposed hypothesis (H1) is supported by the empirical analysis, as there is a positive and statistically significant relationship between the independent and dependent variables in models 5, 10 and 12. Hence, it is argued that the imposition of sanctions on rebel groups is correlated to increased levels of one-sided violence perpetrated by these rebel groups. The causal mechanism outlined in section

\(^{20}\) Given that the sanctions had effects on resource access.

\(^{21}\) 33 out of those 45 included in the dataset.
2 can however not be established by these results, as no measurement has been included on rebel groups’ resource assets or sanction effectiveness. It is also noteworthy that strategic choices – building on decisions from leaders and group members – can be considered a black box (Ohlson, 2008:141) which is close to impossible to make inferences about using quantitative methods. Hence, whilst the results support the hypothesis by establishing a positive and statistically significant relationship between sanctions and violence against civilians, one cannot make inferences about the causality between the two phenomena. However, this does not mean that the causal mechanism outlined in section two is not credible (Kellstedt & Whitten, 2018:60), and future research using other methods is able to further test the causality between sanctions and one-sided violence conducted by rebel groups.

4.3.1. Alternative Explanations
Despite the fact that the hypothesis is supported by the results, alternative explanations of the observed relationship cannot be discarded. One eventual confounding factor which have not been controlled for is the international reputation of the rebel groups in question. It can be argued that rebel groups using one-sided violence as their predominant tactic gets a bad reputation on the international arena, and that these groups thus are more likely to become subject to sanctions. Hence, the reputation of the groups in question may have a relationship to both the independent and dependent variables. This could have been controlled for by adding variables measuring earlier levels of one-sided violence or conflict intensity, but the scope of the paper did not allow for further analysis. This alternative explanation also highlights the importance of establishing time-order between sanctions and one-sided violence. Indeed, it might be the fact that groups using high levels of one-sided violence become subject to sanctions more often than those who are refraining from targeting of civilians. If so, reversed causality between the independent and dependent variables cannot be ruled out. In order to cope with this issue, the lag of sanctions was used, but the results should still be interpreted with this in mind.

Another factor that may have influenced the relationship between the independent and dependent variables are external interventions such as military and peacekeeping operations. Both of these interventions are likely to affect levels of one-sided violence (Hultman, 2010; Wood et al., 2012) but also sanctions as they sometimes are employed with military force or is accompanied by armed intervention (Lektzian & Regan, 2016:558). This could have been controlled for by adding variables measuring if there has been any armed
intervention in the dyads in question, but the time limitations of the research process did not allow for further data management.

4.3.2. Limitations of Study

According to established practice (Radtke & Jo, 2018:764), it is noteworthy that a negative binominal regression would have been more suitable than an OLS since parts of the variables include over dispersed values. However, due to the time scope of the research process, OLS was deemed as a more suitable option, and the overdispersion was accounted for by using the natural log of the variables in question. Another weakness of the study is the unit of analysis, since fluctuations in sanctions and one-sided violence occur on a more regular basis than years. Ideally, a rebel group-month unit of analysis would have been capable of yielding more nuanced and precise results.

Furthermore, there is no measurement of sanction effectiveness included in the models presented above. The UN is dependent on the goodwill of the member states to implement the sanctions, and if states decides not to do so, sanctions will prove ineffective (Farrall, 2007:18-19). As the sanction variable only captures the UNSC’s decision to sanction groups and not whether this is done effectively, the results should be interpreted with caution. In addition to this, the operationalization of the variable Sanctioned Government is quite blunt, encompassing all types of economic sanctions and not only those which can be expected to have a substantial effect on the war-fighting capacities of the state. The results of the robustness test should be interpreted with this in mind.

Lastly, the research design and method of choice does not have the ability to shed light on the causal mechanism outlined in the theory section. The results presented above merely shows the relationship between the independent and dependent variables, and qualitative studies are more suitable to trace the mediating variables included in the causal explanation. The method of choice was however deemed appropriate as it was able to yield generalizable knowledge on the relationship between sanctions and one-sided violence, and the results from this study can lay basis for future more nuanced qualitative studies.
5. CONCLUSION

The purpose of this study was to contribute to the contemporary literature on violence against civilians and sanction effectiveness by examining the relationship between imposed sanctions and targeting of civilians by rebel groups. The theoretical argument presented in section two built on theories of conflict dynamics and strategic choice, and argued that the introduction of sanctions leading to decreased rebel group resources was to be followed by a change in strategic choices, including an increase in the use of violence against civilians. The hypothesis thus proposed that “[t]he introduction of sanctions on rebel groups increase their use of one-sided violence” (H1). This hypothesis was supported by the empirical analysis, and all included models estimated a positive relationship between sanctions and one-sided violence used by rebel groups. Controlling for conflict intensity, population and regime type, the relationship also became statistically significant. The results of additional and robustness tests indicate that this relationship remains positive and statistically significant when controlling for whether the government was sanctioned. The purposes of the study are thus considered as fulfilled, although with some limitations and caveats presented in previous sections.

Future research should investigate not only sanctions imposed by the UNSC but also other actors, operating on both international and regional levels. It would further be of value to conduct analysis on monthly-level data, in order to investigate effects within shorter timespans. Moreover, qualitative studies could shed light on the causal mechanism and theoretical argument laying basis for the study. In addition to this, it may be fruitful to use the individual indexes in the Polity IV Dataset or alternative data on regime types in order to get a more nuanced picture of the relationship between sanctions, one-sided violence and certain regime type characteristics as this control variable was of great importance in the regression models presented in section 4.2. Moreover, the study of sanctions in relation to rebel groups’ use of non-lethal violence such as forced recruitment or looting would be of value in order to further disentangle the implications of sanctions’ effects on non-state actors’ behavior against non-combatants.

The results presented in this thesis have implications not only for the field of peace and conflict studies, but also for policymakers and actors who use sanctions as a tool for conflict reduction or prevention. Sanctions are often designed to coerce rebel groups and other actors to refrain from violence, but it is evident from the analysis that sanctioned rebel groups conduct higher levels of violence against civilians in comparison to non-sanctioned groups. Earlier studies have deemed UN sanctions as a possible tool for conflict reduction, but this claim can
be questioned when considering the results of the empirical analysis in this thesis. Sanctions will most likely continue to be used as a tool of non-violent intervention in armed conflict, and the results from this study indicates that it is of great importance that the effects of sanctions are evaluated not only in relation to the warring parties but also those who are not actively partaking in the fighting. Pressuring rebels in order to prevent or decrease violence is not a straightforward endeavor, but civilians should not be the victims of poorly evaluated policy tools.
6. REFERENCES


PCR. (n.d.). *Definitions—Department of Peace and Conflict Research—Uppsala University, Sweden.* Department of Peace and Conflict Research. https://www.pcr.uu.se/research/ucdp/definitions/


6.1. References for Appendix A and B


APPENDICES

APPENDIX A: Codebook for Sanction Data

The information for the dataset on sanction types is gathered from the UN Targeted Sanctions qualitative database, which includes information on sanction types, targets and implementation dates on UN targeted sanctions between 1991 and 2013 (Biersteker et al., 2018).

Coding Rules
The UN Targeted Sanctions Qualitative Database includes monthly information on sanction episodes. For a sanction to be considered as active in a year, it must cover 6 or more months. Hence, sanctions active five months or less are not included in the given year. In order to be able to match the data to other datasets on rebel groups, the UCDP Actor ID is attached to every rebel group and sanction year. If there are years in the UN Targeted Sanctions Qualitative Dataset that are sanction-years, but there are no active rebel groups actively fighting the government, these will be coded as missing data (N/A). Comprehensive sanctions are not measured, since these are directed at entire countries and not armed actors per se. The sanctions counted are only those which relate to the military or economic resources of rebel groups, and diplomatic sanctions or travel bans are not included.

Some sanction regimes includes measures which target “all armed actors” or “all non-state actors”. These are coded as directed towards all rebel groups active in the years and country in question, with an incompatibility with the government in question. In order to locate what rebels were active in a given country in a given year, the UCDP Battle-Related Deaths dataset (Pettersson et al., 2019) is used. The only rebel groups included is hence those who have been active during the time the sanctions are imposed. In order to match rebel groups and sanction locations, the variable “location_inc” (Pettersson, 2019:5) is used, and all active rebel groups with an incompatibility with the government in question are considered as sanctioned.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>country</td>
<td>The country in which the sanction is implemented</td>
</tr>
<tr>
<td>actor_name</td>
<td>Name of the target of the sanction</td>
</tr>
<tr>
<td>actor_id</td>
<td>UCDP Actor ID of the target of the sanction</td>
</tr>
<tr>
<td>year</td>
<td>The year of measurement</td>
</tr>
<tr>
<td>sanc_total</td>
<td>The total number of sanction measures imposed in the given year. Ranges from 1 to 4</td>
</tr>
</tbody>
</table>
| sanc_arm   | Presence or absence of arms embargo in the given year.  
|            | 1: presence  
|            | 0: absence                                                                  |
| sanc_ass   | Presence or absence of asset freeze in the given year.  
|            | 1: presence  
|            | 0: absence                                                                  |
APPENDIX B: Logbook for Sanction Data

In Sudan, the sanctions from 2005 to 2014 was directed on rebel groups in “[…] North, West and South Darfur” (TSC, 2014:100). The rebel groups that were active in a conflict with a stated incompatibility against the government during this time period were: JEM, SLM/A, NRF, SLM/A - MM, SLM/A-Unity, SSDM/A, SPLM/A-North, SSLM/A, SRF, SARC and Darfur Joint Resistance Forces. Out of these rebel groups, JEM (UCDP, 2018), SLM/A (UCDP, 2018c), NRF (UCDP, 2018b), SLM/A - MM (UCDP, 2018d), SLM/A-Unity (UCDP, 2018e), SRF (UCDP, 2018f), SARC (UCDP, 2018g) and Darfur Joint Resistance Forces (UCDP, 2018a) are considered as active in the area, based on UCDP info. The Sudan sanction are also directed at those who “[…] commit atrocities, violent measures […]” (TSC, 2014:102) and all active rebel groups in the area and time is hence considered as sanctioned, as they evidently are violent.

Please contact ella.stork@gmail.com if you would like to get replication data or the R script used for data management, regressions and graphs throughout the paper.