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# Lay Down Your Arms: Ceasefire Success and International Intervention in Civil Wars

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## Abstract

Why do some ceasefires last only a few days, while others are instrumental in bringing about a durable end to civil war? In response, this study proposes a dual typology of international intervention in civil war and applies the logic of commitment problems to the impacts each type of intervention has on ceasefire success. According to the proposed theory, the commitment problem present at the implementation stage of the ceasefire agreement is exacerbated by an intervening belligerent actor's presence in the agreement and is mitigated by the presence of an intervening mediating actor. As such, the involvement of a belligerent intervening actor should be predictive of a less successful ceasefire while the involvement of mediating intervening actor should be predictive of a more successful ceasefire. A regression analysis of 156 ceasefires since 1947 produces unexpected outcomes. The results suggest that intervention of any type is predictive of unsuccessful ceasefires. These findings have significant implications for policy-makers and military leaders alike, namely that interventionist foreign policy is not conducive to global peace and that supranational organizations should be wary of entering domestic conflicts at the risk of having an adverse effect on the peace process.

## 1. Introduction

The question of how to best bring about the end of a civil conflict plagues governments, diplomats, and peace advocates for peace alike. Contemporary civil conflicts are complex – often involving myriad insurgent factions and varying levels of international meddling. Actors working together may have different casus belli, different goals, or even different enemies. Furthermore, as the world globalizes and new superpowers and supranational organizations seek to exert their geopolitical and military prowess by intervening in civil conflicts. This only serves to further intensify the complexity of already convoluted conflicts. This is all to say: it is difficult to negotiate an ending to a civil conflict because there are often many moving parts, so to speak. As ending wars is hard, so is putting them on pause. Convincing all actors in a civil conflict to temporarily lay down their arms poses many of the same problems as end a war all together. Despite the challenge, wars do end and ceasefires do get negotiated. Just as wars restart even after a period of peace, ceasefires too may not be successful. In fact, ceasefire agreements sometimes do not even bring about a temporary halt to fighting. There is significant variation in the effectiveness of ceasefires. Some lead to indefinite ends to conflicts, while others are barely nominal.

Two examples illustrate this phenomenon well. The Syrian Civil War, which began in 2011, has seen numerous attempts at ceasefire to varying degrees of success. One notable instance of a wholly unsuccessful ceasefire is the expanded agreement that took effect on May 2, 2015. This agreement expanded an existing ceasefire agreement to explicitly protect the embattled city of Aleppo, and was brokered by the United States and Russia, two countries involved in the conflict on opposite sides. Despite Syria being party to this agreement, just two days after its adoption the Syrian Democratic Forces carried out airstrikes on rebel targets near the city of Aleppo. At least one person died in this explicit violation of the truce. [1] By nearly all metrics, this ceasefire was a complete failure. Contrast this with

the Iran-Iraq war. The Iran-Iraq war began in 1980 and raged for nearly eight years. In 1988, a United Nations enforced ceasefire took effect between the two warring countries. UN observers maintained the border as long-term peace talks continued. [2] The ceasefire was never broken, and durable peace was established. [3]

Ceasefires are useful tools for mitigating the effects of warfare. These lapses in fighting can provide opportunities for humanitarian aid to safely enter besieged areas; a potential matter of life and death for those who are quite literally living in a war zone. With little to no other alternative for food, water, and medicine, aid can ensure that those souls unlucky enough to be caught in the crossfire can live another day. Ceasefires also allow for evacuations of the sick, the elderly, women, and children. During active warfare, it is nearly impossible to flee a besieged city or town. As resources dwindle, it is of paramount importance that the most vulnerable members of society be evacuated to safer territory. Finally, ceasefires offer precious time for military leaders to come together in an attempt to negotiate an end to the war. Free from the preoccupations of carrying out military operations, leaders can turn their attention towards building peace rather than waging war. Ceasefires save lives and understanding why they fail and why they succeed may shed light on how the human costs of war can be minimized.

All this poses the question: Why do some ceasefires lead to a substantive end to violent civil conflict, while others seem to have no effect on the duration or intensity of a civil conflict? In an attempt to answer this question, this study posits that the success of a ceasefire rests on the particular type of international intervention involved in that agreement. Foreign actors that intervene in another country's conflict are classified into two types – belligerent and mediating. The theoretical basics are intuitive. Ceasefires involving belligerent actors are less likely to succeed because of the high cost of a military defeat for a belligerent, and as such they will be more likely to break that agreement. Conversely, ceasefires involving mediating actors are more likely to be successful because the cost associated with a diplomatic loss in a foreign country is relatively low, and as such they will have little to no incentive to break the agreement. A regression analysis of these hypotheses signals that reality does not necessarily follow this intuitive logic. The results suggest that the type of international intervention mostly does not matter – ceasefire agreements involving any international actor are less likely to be successful when a purely domestic agreement. To test this hypothesis, this study will first explore the extant scholarship on the topic of ceasefires in civil war and will contextualize this research therein. From there, a typology and a discussion of theoretical foundations will be set forth and tested using regression analysis. This study will conclude with an exploration of its implications for ceasefire negotiation and peacebuilding in practice and a series of suggestions for further scholarship.

## 2. Literature Review

There exists a lack of systemic, empirical study of ceasefires in the field of political science. While ceasefires are important aspects of war-making, scholarly research on the topic has tended to be limited in scope, erring towards a case-study research design. [4] [5] [6] While this is a legitimate approach to research and these studies produced insights useful to the field, case-studies are not necessarily generalizable. Largescale studies with large samples and empirical analyses can produce much more predictive and generalizable outcomes than the case-study approach. As such, body of literature would benefit from a systemic study of ceasefires. While ceasefires are understudied, much empirical research has been done on the topic of ending conflicts rather than putting them on pause. Scholars have evaluated a plethora of factors that influence the peacemaking process at the end of conflicts, and while these factors are distinct from those which influence ceasefire agreements, they offer compelling suggestions from which to build the literature on those agreements. Long-standing, durable peace requires an approach unique from that required to establish a time-bound peace agreement. While the circumstances are different, the goals are more or less the same. As such, the extant literature on ending wars should provide useful insight into the factors affecting ceasefires.

A multitude of researchers have sought to understand peace-building. Scholars have evaluated the dynamics of military power-sharing agreements in civil wars, finding that conciliatory intent during the implementation stage is the strongest predictor of durable peace. Essentially, the effective implementation of peace agreements by one party signals to all other parties that it has made a credible commitment to establishing peace. It is understood by all parties that no one will break the agreement, else risk losing all of their political power in the post-war order. [7] This insight into credible commitment and signaling is a compelling one. It raises questions about how actors are perceived by others involved in the conflict and about how that perception colors the choices of the observing actor. Other scholars have used the logic of the commitment problem as a lens through which to view peace-building as well. It has been suggested that power-sharing agreements are most effective when proposed after a decisive military victory by either side than when introduced after a period of stalemate. This is due to the credibility of the commitment made by each side. After a stalemate, either side may feel as though a slight military advantage could lead to their total victory,

incentivizing them to break the agreement and continue fighting. However, after a decisive military victory, the loser is better served by taking the political concessions in the post-war government than by fighting, and the victor is better served by sharing power than blocking the loser from power entirely so as to prevent future insurgencies. [8] This model of evaluating actor's incentives for fighting over keeping peace is an effective approach to researching the motivations behind belligerents' actions. Furthermore, an application of this approach to non-belligerent actors should produce interesting insights with a broader scope.

In a similar vein, other researchers have looked power parity among belligerents and its effect on the success of peace-building endeavors. For example, studies have suggested that peace is more durable in situations in which rebels and the government are of similar military capabilities. Weak insurgents do not have sufficient leverage to negotiate favorable terms for themselves in a peace agreement because the government sees them only as a minor threat. This is, however, an underestimation on the government's part, as governments have a difficult time achieving military victory over weak insurgents who use guerrilla warfare tactics. Conversely, rebel groups that are stronger than the government are unlikely to settle for fear of losing their superiority. However, parity (or near parity) between the government and insurgents allows rebels to win more concessions during peace negotiations because governments see them as a credible threat. Furthermore, when all actors are near parity, it increases the costs and length of conflicts. This makes peace more appealing to both sides as the costs of doing battle continue to mount. [9] Similar findings have been established by case-study approaches to conflict research. In a study of the civil war in El Salvador in the 1980s and 1990s, the claim is made that peace was possible in that case due to the military stalemate. During this conflict, the stalemate between the Salvadorian government and the FMLN rebel group signified that the two parties were at relative military parity; neither one could achieve a decisive victory over the other. Out of this stalemate, a successful peace agreement emerged. [10] These studies shed light on the military considerations made by belligerents in a conflict, a pathway that should prove interesting to explore in the context of ceasefires.

Beyond military power, scholars have evaluated the effects of specific policy provisions within peace agreements and their effects on the durability of peace. It has been found that peace agreements that include reforms from a broad array of policy areas are more likely to be successful than more narrow agreements. This is because the broad policy concessions act as a signal of the government's commitment to peace. Furthermore, broad agreements are more likely to encompass the objectives of government opposition groups which decreases the likelihood of those groups attempting to sabotage the peace process. In addition, if the agreement provides sufficient reforms for all parties, those parties are more likely to accept the agreement and less likely to try to renegotiate it later. This renegotiation is potentially threatening to durable peace because of the likelihood that negotiations will break down into armed conflict. [11] The cited studies, taken collectively, uncover the factors that lead to effective power-sharing agreements. While these agreements and ceasefires are created under distinctly different scenarios, the findings produced by these scholars can be used to inform the rather nascent comprehensive study of ceasefires. The approaches used therein can be adapted to understand the factors that influence ceasefire success in civil wars.

There exists in this field a significant lack of empirical scholarship on civil war ceasefires. All of the aforementioned scholarship provides valuable insights into the opaque inner workings of peace-building, however the works are limited in that they evaluate only long-term peace agreements; those intended to end fighting for good. The phenomenon of interest here extends beyond these sorts of agreements, and includes time bound ceasefires (i.e., ceasefires occurring during a conflict with the expectation that fighting will likely later continue). While it has been and should be noted that agreements intended to end conflicts permanently are distinct from other forms of ceasefires, the actors therein and their motivations are comparable. As such, the literature cited above will serve as the starting point for an analysis of ceasefire efficacy, in an attempt to begin to fill the dearth of specific scholarship on the topic.

Given the absence of systematic study on civil war ceasefires and the expansive nature of the topic, a relatively narrow scope of study is necessary to endeavor to begin to understand why some ceasefires fail while other succeed. This study will look at the potential connections between international intervention in civil war and its effect on ceasefires efficacy. Out of 156 civil wars since 1947, more than two-thirds saw some form of international intervention. Considering the scope of intervention in civil war during this period and the numerous instances of failed ceasefire agreements, an analysis of the relationship between the two phenomena is in order. To do this, the following theory is proposed.

## 3. International Intervention and Civil War Ceasefires

International intervention can generally be divided into two types: belligerent and mediating. A belligerent intervening actor is any foreign group, usually a state, that enters the war to assist either side of the conflict. For the purposes of

this research, included in this category are only groups that provide direct military aid, such as combat personnel or military operations carried out on behalf of the supported party. Not included will be any foreign group that provides only financial or technological assistance. The definition presented here excludes financial and technical benefactors so as to better match the mechanisms of the theoretic argument. For other purposes or applications, actors falling into either of those classifications may be included. Belligerent intervening actors may enter the conflict at any point before a ceasefires agreement and do not have to be one of the instigating or original parties to the conflict. The second type of international intervention is mediating intervention. The definition of mediating intervening actors used here is adapted from Regan, Frank, and Aydin. [12] These actors have no military stake in the conflict and enter the fray of war only to assist with the establishment of peace. Typically, these are supranational groups, regional powers, or regional trading blocs. These actors enter the situation at the ceasefire stage to assist with mediating an agreement.

All ceasefires, regardless of international intervention, are susceptible to the commitment problem, more specifically, time inconsistency commitment problems. In a commitment problem, actors cannot be perceived as credibly committing to a strategy that would lead to the outcome most beneficial for all parties involved because there exists a strategy that would lead to a better outcome for that particular actor, but not necessarily every other actor. In a time inconsistency commitment problem, actors may be seen as credibly committing to the mutual beneficial outcome in the early stages of the scenario, but it later become apparent that their commitment is not credible. The change in perception of commitment can be caused by a change in the information environment or a change in the structure of outcomes or incentives as time progresses, among other things.

At the implementation stage, the mutually beneficial outcome for all is an effective ceasefire. The implementation stage occurs after the agreement has been signed by all parties and is when the agreement is meant to take effect. This outcome provides all parties with a decent outcome: they enjoy international recognition for allowing a ceasefire to occur and they uncover time to negotiate a settlement to the conflict that benefits them. When the agreement was negotiated, this was the mutually beneficial outcome to which all actors credibly committed. Despite this being the best outcome overall, all belligerent actors are enticed by the potential payoffs of breaking the ceasefire and continuing to fight once the ceasefire is in place. War can be a profitable enterprise. Belligerents enter conflicts for their ideological or political benefit and for potential financial benefit: for both greed and grievance. [13] Actors know that fighting will help advance their interests, and they know that breaking a ceasefire may even make their efforts more effective by allowing them a first mover advantage. If actors believe that they are able to get more out of breaking the ceasefire than keeping it in place, they will break the ceasefire. The complexity of the situation lies in the fact that each belligerent actor follows a similar logic and knows that every other actor is thinking in the same way. Herein lies the time inconsistency; once the agreement is in place, the incentives change slightly. The mutually beneficial outcome is still a successful ceasefire, however once an actor makes the commitment to follow the ceasefire, all the other actors' incentives to break the agreement increase.

For illustration, consider the following example. *A* is a state military and *B* is a rebel group. *B* wants to gain control of a province that currently belongs to *A*. *A* and *B* have entered into a ceasefire agreement that stipulates that the two stop fighting for 30 days. During those 30 days, *B* knows that if they strike *A* now, they will have a better chance of taking over that territory because *A* will not be expecting a strike. However, *A* understands that it is an advantageous time for *B* to strike. Knowing this, *A* would benefit from suppressing *B* preemptively. Furthermore, both *A* and *B* know that the other actor has an incentive to break the ceasefire. This tension leads almost inevitably to either *A* or *B* carrying out a strike against the other, breaking the ceasefire.

This complex information environment does not spring up at the implementation stage of a ceasefire; it permeates the entire process. This may pose a question of why ceasefire agreements are signed in the first place, if all parties to them understand that they may fail. This model accounts for this by assuming that each party has some incentive to enter the ceasefire and that commitment is seen as credible when it is made. Governments may face pressure from other countries or supranational organizations to enter into a ceasefire agreement and insurgencies may face a similar pressure from the people under its rule or from foreign patrons. To even be seen as signing a ceasefire agreement, regardless of how effective it is, carries some geopolitical benefit for governments and patron states of insurgent groups. Parties to a ceasefire may even foresee the potential opportunity to strike their enemy unaware and enter into an agreement to gain a first mover advantage. Parties may enter into a ceasefire agreement out of goodwill and then break it as a response to some form of signaling from the other party. Whatever the specific reasoning, ceasefire agreements occur despite (or with an understanding of) the implementation stage commitment problem.

International intervention in civil war ceasefire agreements can either exacerbate or mitigate the implementation stage commitment problem depending on the nature of the intervening actor. Belligerent intervening actors make the commitment problem worse. These actors function as full belligerents in the conflict and as such are parties to the ceasefire agreements. Therefore, they follow the same logic as the government or an insurgent group. Belligerent intervening actors have some greed and/or grievance motivation for involving themselves in the conflict and evaluate

the cost/benefit calculation for keeping or breaking a ceasefire in the same manner as domestic belligerent actors. Belligerent intervening actors have gone out of their way to enter the civil war of another country, and as such actors must have considerable interests at stake to justify expending considerable financial, military, and geopolitical resources on a foreign conflict. As such, belligerent intervening actors have an immense interest in breaking the ceasefire if it will get them closer to their desired goals. The presence of a belligerent intervening actor increases the likelihood of ceasefire failure because their involvement constitutes another actor that has a reason to break the agreement. These actors add even more uncertainty to the commitment problem, potentially convincing other actors to break the ceasefire or breaking the agreement themselves.

*Hypothesis 1: The intervention of a foreign belligerent actor in a ceasefire agreement makes success less likely.*

In comparison, mediating intervening actors mitigate the commitment problem. In ceasefires involving this type of intervention, all belligerent actors follow the same logic as in all other cases and the mediating actor acts as a commitment mechanism. Mediating actors have no stake in the outcome of the ceasefire or the conflict as a whole. Their sole motivation is to bring about a successful pause of the conflict. Due to the fact that they have no incentive to fight, they do not exacerbate the commitment problem. Instead, they mitigate it by influencing the belligerent's potential incentives for breaking the ceasefire in such a way that it becomes less attractive to do so. Mediating intervening actors tend to be powerful organizations or countries, such as the United Nations, Economic Community of West African States (ECOWAS), and the United States. [12] As such, they have significant power to manipulate the behavior of states and, in turn, insurgent groups. A mediating actor can elevate the salience of a civil war to the international stage, opening up the conflict to international geopolitical pressure. If citizens, NGOs, and governments are made aware of a humanitarian crisis abroad, they may see as reflective of their interests to lobby for something to mitigate the situation. These actors may also place economic sanctions on the government or on foreign patrons of insurgent groups if they break the ceasefire. This outside pressure constrains belligerent actors' behavior to a point at which they choose not to break the ceasefire, seeing it as advantageous to hold off until the ceasefire ends to carry out military operations. Using international pressure and economic and diplomatic sanctions mediating intervening actors can ease the effects of the commitment problem, making following the terms to the ceasefire more appealing than breaking the agreement.

*Hypothesis 2 : The intervention of a foreign mediating actor in a ceasefire makes success more likely.*

## 4. Analysis

### 4.1 Data and Conceptual Definitions

The data used in the following analysis was collected by Regan, Frank, and Aydin[12] and Fortna. [14] Fortna's dataset was created to measure the effectiveness of peacekeeping operations after civil wars from 1989-2004, however it contains useful data on ceasefires, belligerent international intervention, and other features of civil conflict. [15] There is a general lack of comprehensive data on ceasefires and their failures. As such, this research only considers those ceasefires that are part of larger peacekeeping agreements. From Fortna's dataset, a dummy variable was coded for each war in which a ceasefire failed, and used the start date and end date variables for those observations to calculate the length of the ceasefire in days. Out of 156 observations there were 78 failed ceasefires with an average length of just under four years. Ceasefire distribution is skewed left, with the vast majority of ceasefires being shorter than 5 years (See Figure 1) and very few failing after being in place for more than 6 years. Dummy variables for observations that experienced any belligerent intervention were then coded and cross-referenced with Regan et al.'s to identify instances of mediating intervention, which were coded with a dummy variable as well. Out of all 156 conflicts, 92 of them involved belligerent intervention and 56 involved mediating intervention. 38 conflicts involved both belligerent and mediating intervention at some point (See Table 1).

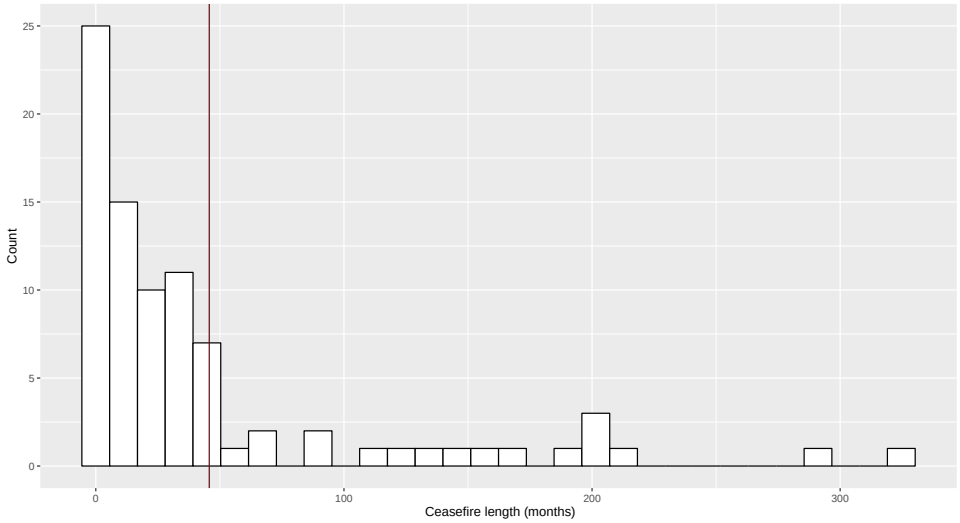

Figure 1: Distribution of Ceasefire Lengths (in months)

Due to reliance on Fortna's and Regan et al.'s data, this study uses the definitions therein for its concepts of interest. A such, the same definition used by Fortna will be used here. A civil war is an armed conflict that meets the following criteria:

- The war caused more than 1,000 battle deaths;
- The war represented a challenge to the sovereignty of an internationally recognized state;
- The war occurred within the recognized boundaries of that state;
- The war involved the state as one of the principle combatants;
- The rebels were able to mount an organized military opposition to the state and to inflict significant casualties to the state[16].

All conflicts observed in the data meet this criteria. Fortna defines a ceasefires as an agreement that is labeled as such by those groups party to it, as such each of the ceasefires appearing in the data meet his criteria. While this is a sufficient definition for data collection purposes, conceptually this study will define ceasefires as an agreement among two or more parties to a conflict to mutually suspend military operations for a predetermined or indefinite period of time. During a ceasefire, no civilian, insurgent, or soldier should die or sustain injury from any deliberate military action instigated by a signatory.

Table 1. Intervention in Civil Wars

| Intervention | Frequency | Relative Frequency (of all observations) |
|---|---|---|
| Belligerent | 92 | 59% |
| Mediating | 56 | 36% |
| Both | 38 | 24% |
| Nither | 45 | 29% |

Note: Percentages are rounded to nearest whole number

To define mediating intervention, the same definition used by Regan et al, will be employed. Mediation in international conflict is non-coercive, nonviolent, and non-binding. Mediating actors enter a conflict to affect or influence the outcome of that conflict. [17] This is the operational definition applied by Regan, et al, for the collection of data on diplomatic intervention. Regan defines belligerent intervention as "convention breaking military and/or economic activities in the internal affairs of a foreign country targeted at the authority structures of the government with the aim of affecting the balance of power between the government and opposition forces". [18] While this is a useful definition for some cases, for this research it is insufficient. Instead, for this research belligerent intervention is

convention breaking military activities in the internal affairs of a foreign country targeted at either the authority of the government or an insurgent group with the aim of affecting the balance of power between the government and opposition forces. To measure belligerent intervention, this definition was applied to each observation and a dummy was coded if it experienced any one of the following, based on Fortna's data: a neighbor intervenes on the side of rebels or a major/great/neighboring power intervenes.

This study controls for several factors that may influence an actor's calculus to the extent that those factors override the effect of intervention. One dummy variable is significant oil exports. A potential motivation for a group to enter a conflict is the opportunity to amass wealth by gaining control of natural resources. As such, actors in a conflict taking place in a resource-rich country may have significant financial incentive to break a ceasefire in order to gain a territorial advantage in order to further their goal of resource dominance. This phenomenon is particularly acute in oil rich countries. Oil wealth is an alluring prize for the victor of a civil conflict and may shift the calculus of an actor towards continuing to fight in order to attempt to win control of preserve their ability to exploit oil resources. [19] To account for this potential externality, included will be a dummy variable for each conflict, coded 1 if more than one third of the country in conflict's export revenues are from fossil fuels, 0 otherwise.

Another potential factor that may make a ceasefire less effective is conflict severity, as proxied by the log of battle deaths. [20] Conflict severity may be predictive of a shorter ceasefire because it is an indication that actors' motivation is incredibly strong and that they are willing to suffer significant personnel losses in pursuit of their goals. Groups that have proven themselves unconcerned with the deaths caused by their continued fighting will be unlikely to be compelled by the humanitarian benefits of a ceasefire. If a group is more concerned with goal achievement than massive loss of life, their dedication to a ceasefire is likely tenuous at best. The log of battle deaths is included in the analysis to account for this. Another factor to control for is the presence of a past peace agreement. A successful peace agreement in the recent past may have a legacy in the memories of military leaders that impacts their ceasefire calculus such that they weigh the benefits of a ceasefire heavily. If it has proven beneficial in the past to adhere to a ceasefire, military leaders are more likely to adhere to a ceasefire in the present. The presence of a past agreement is coded as a dummy variable; 0 if there was no past war or the past war ended in a decisive military victory, 1 if the past war ended in a truce or settlement. [15] Past wars are measured as a civil war occurring any time between 1944 and the onset of the war being measured. [16]

This study will also account for difference in military strength between government forces and rebel groups. As noted by Wood[10] and Hultquist[9], power parity is a strong indicator of successful peace. Conversely, a decisive military advantage for one side over the other is a predictor of failed attempts at peace. If a government military is significantly stronger than a rebel military, it is likely that the rebel group will break the ceasefire in order to gain a military advantage over the more capable state. A measure of the size of the government army will be included as a proxy for power parity. The larger the government military, the logic goes, the more likely that a power imbalance exists between them and the primary insurgent group. Furthermore, potential advantage for insurgent groups will be accounted for with the inclusion of the log percentage of mountainous terrain in the country in conflict. Rough terrain tends to lend a military advantage to insurgent groups, making it difficult to combat guerrilla war tactics. [19] Mountainous terrain may make insurgents less likely to stick to a ceasefire, as they have an advantage over the state military that can be exploited in the event of a ceasefire. Finally, this study will control for whether the war is an identity conflict (i.e., based on ethnicity or religion) or a political conflict (i.e., based on an ideology or secessionist motivation). Ethnicity and the strong sense of group identity that is associated with it makes establishing peace more difficult, as members of distinct groups find it difficult to reconcile their differences. [21] This should also negatively affect combatants in ethnic conflicts' ability or willingness to uphold a ceasefire agreement. Conflict type is coded as a dummy variable; 1 if it is an ethnic or religious conflict, and 0 if it is political.

## 4.2 Results

To evaluate the relationships among these variables, this study will rely on Ordinary Least Squared regression. While a duration model may traditionally be more appropriate when dealing with time variables (such as days), a standard linear regression proves just as effective. The benefits of a duration model are that it could provide more precise predictions of the outcomes of the shortest and longest ceasefires. However, the results from a duration model are more or less comparable to those produced via OLS. As such, a simple regression will suffice for the purposes of this research.

Firstly, this study will seek to identify a relationship between ceasefire length and intervention more generally. A regression estimates an effect of -437 days. Substantively, this can be interpreted as intervention, whether belligerent or mediating, being predictive of a cease- fire that is a year and 2 months shorter than the average ceasefire. This result

is statistically significant with 99% confidence. Hypothesis 1 posits that ceasefires involving belligerent intervention are shorter on average. As such we expect to see a negative relationship between the two variables. An OLS regression estimates an effect of -842 days. This result supports the hypothesis and it is substantively quite significant. In practice, belligerent intervention is predictive of a ceasefire that is about 2 1/2 years shorter than a ceasefire with no intervention at all. Given that the average ceasefire is about 4 years long, this is a significant decrease in length. These results fail to exhibit statistical significance, however with the inclusion of control variables to account for potential confounders, the regression produces as statistically significant effect of -784 days, or substantively about 2 years. While this is a slightly smaller effect that is predicted by the regression without controls, it is still a significant decrease in ceasefire length.

Hypothesis 2 predicts that ceasefires involving mediating actors will be shorter on average. As such we expect to observe a positive relationship. The effect on ceasefire duration resulting from the test is -886 days. This result is wholly contrary to the expected outcome for H2. Firstly, the slope shows a negative relationship, indicating that the involvement of a mediating actor actually predicts a shorter ceasefire than would be predicted given the absence of an international intervention. Substantively, these ceasefires are about 2 1/2 years shorter than an ceasefire in which no intervention is involved. This is a larger negative effect than is predicted by the involvement of a belligerent actor. Furthermore, this effect is statistically significant. With the inclusion of external factors, the test yields an effect of -1008 days. The sign remains negative; however the effect is much larger, indicating a ceasefires that is nearly 3 years shorter. This, again, runs in total contradiction to the predicted effect of mediating intervention. With the inclusion of control variables, mediated ceasefires are close to 6 months shorter than those involving belligerent intervention. This effect, however statistically insignificant, casts serious doubt on the ability of the above theory to accurately reflect the forces at work in ceasefire agreements. See Table 2 for all coefficients.

Table 2: International Intervention and Ceasefire Duration

| | *1* | *2* | *3* | *4* | *5* | *6* | *7* |
|---|---|---|---|---|---|---|---|
| Intercept | 1859.1 (332.5) | 1639.3 (255.3) | 1857.1 (1137.1) | 1156.6 (1018.9) | 417.3 (443.8) | 1885.7 (325.0) | 1252.0 (1018.3) |
| Belligerent | -842.3 (444.6) | — | -783.6 (471.6) | — | — | - 492.6 (404.1) | -523.4 (424.2) |
| Mediating | — | -885.8* (404.9) | — | -1008.0* (436.9) | — | -803.7 (409.2) | -929.9 (440.0) |
| Intervention | — | — | — | — | -436.6 (229.8) | — | — |
| Adjusted $R^2$ | 0.03 | 0.04 | 0.08 | 0.10 | 0.46 | 0.05 | 0.11 |
| Controls included | No | No | Yes | Yes | Yes | No | Yes |

*Note*: Shown are coefficients from OLS regressions on the differences between international intervention and ceasefire length. N = 156; standard errors in parentheses, * indicates significance at $p < 0.01$

## 5. Conclusions and Avenues for Future Research

This study seeks to evaluate the ways in which international intervention affects the success of ceasefires in civil wars. It was initially hypothesized that belligerent intervention should predict shorter on average ceasefires due to the exacerbation of the implementation stage time inconsistency commitment problem. In contrast, mediating intervention should be predictive of longer ceasefires as that type of intervening actor should act as a commitment mechanism for all other actors. Drawing on the variation present in a sample of 156 civil war ceasefires, a series of regression analyses produced results in contravention to this theory. Both belligerent and mediating intervention are predictive of ceasefires shorter than those involving no international intervention. While this study yielded essentially null results, the insights produced therein have substantive implications for peacebuilding. First, the results suggest that the perpetuation and escalation of interventionism by global military powers is detrimental to peace and serves to increase the human costs of war. Military leaders and heads of state should take serious precaution before intervening in foreign conflicts so as to avoid entering lengthy and costly wars and to minimize civilian loss of life and livelihood. Second, international organizations frequently involved in ceasefire mediation should look to alter their practices in order to be more effective advocates for peace. Ceasefires save lives, and actors seeking to involve themselves in foreign domestic conflict must recognize the great importance that these agreements hold in preserving the lives of innocent

civilians caught in the crossfire. lives, and actors seeking to involve themselves in foreign domestic conflict must recognize the great importance that these agreements hold in preserving the lives of innocent civilians caught in the crossfire.

While the results of this study are robust, several aspects exhibit room for improvement. In the future, this study should be replicated with better data. The availability of data on ceasefires is exceptionally constraining. The data used here is sufficient, however not ideal for a systemic analysis of ceasefire success. All ceasefires measured in the data used here are longer than one month and are all part of larger peacekeeping agreements. This introduces a number of potentially confounding variables that could affect the results of this study but are ultimately beyond its scope. There are ongoing projects to collect comprehensive data on the topic, the fruits of those endeavors were unavailable at the time of this writing. Furthermore, while an OLS regression model is appropriate for this analysis, better models exist. For example, the assumptions of a duration model suit the nature of this type of data better and would likely yield results slightly more accurate than those presented here.

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