

# Economic sanctions for peace

The non-violent option for whom?

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# Abstract

There is a consensus in previous research that economic sanctions have a low level of effectiveness in reaching objectives. Despite this, economic sanctions are consistently used to reach different international goals. In later years, economic sanctions have become one of the most common actions in response to foreign conflict and terrorism. As prior research has stated that economic sanctions were initially developed to be as harmful as possible, this study aims to assess the effectiveness and appropriateness of economic sanctions as a tool to achieve conflict resolution and peace building objectives. This is done by using panel data regressions analyses with fixed effects to deduce the effect of two definitions of economic sanctions on three definitions of conflict intensity in two different time periods, 1989-1999 and 2000-2019. The results show that no definition of economic sanctions has had a decreasing effect on any definition of conflict intensity. Rather, in 1989-1999 economic sanctions either had no effect or they had an increasing effect on conflict intensity. In 2000-2019 economic sanctions only had increasing effects conflict intensity. The results suggest that economic sanctions are an ineffective and harmful tool for peace that is only a non-violent option for the sender states.

*Key words:* economic sanctions, conflict intensity, non-military international intervention, humanitarian intervention, conflict resolution

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# 1 Introduction

While the historical terminology and records are vague, the use of economic sanctions are often believed to have originated around the time organized trading was developed. Financial and trade pressures were, and are still, considered natural and necessary tools to reach political ends and goals (Coates 2020). The evolution of international sanctions is generally credited entirely to the 20<sup>th</sup> century. Economic sanctions were considered a weapon of war for a long time as they were implemented in connection to armed conflict, sometimes even serving as the first steps towards war (Lin 2016, 1400-1401, Elliott, Hufbauer and Oegg). The idea of using economic pressures as tools for organizing and maintaining the global order is considered to have originated around the time of World War I. The 19<sup>th</sup> and 20<sup>th</sup> centuries had seen technological advancements which had led to the world's nations' economies developing in an interdependent way (Coates 2020). The realization that a nation's trade and economic choices could have a significant effect on adversaries was considered a breakthrough that world and military leaders thought would be a supplement to war. Economic sanctions were used to make the effects of the violence of war even more intense and widespread. Economic pressures could, and were, used to ensure that the populations of adversarial states felt the effects of war. (Coates 2020). World leaders recognized the potential for economic sanctions, or "the economic weapon", to be immensely deadly even when implemented outside of the context of armed conflict and violence (Elliott, Hufbauer and Oegg).

This potential was thought to be strong enough for nations to start using economic sanctions as a non-military way to repress potential adversaries and aggressive behavior from other states. Economic sanctions were considered such a hard-hitting tool that it was the only way to make states avoid armed conflict (Coates 2020). The idea of economic sanctions as a means to attain a peaceful world seemed to have been born. However, it can be argued that the nature of armed conflict has changed while the practical nature of economic sanctions has not. Duffield states that wars and armed conflicts have developed from primarily being fought by states, with a few exceptions, to including actors from both state and non-state categories (2001, 13-14). The charts from the Uppsala Conflict Data Program shows the rise of conflicts carried out by non-state actors. This trend is seen to have begun in the 1990s and in the year 2000 non-state violence first overtook state-based violence as more prevalent in armed conflict (UCDP: Number of conflicts).

This opens for the very important issue regarding whether economic sanctions are an appropriate tool for ensuring and preserving peace and human rights. Are the unchanging economic sanctions able to handle the developments that have occurred in conflicts? Are economic sanctions able to ensure peace without military measures and are they really an efficient tool for stopping violence? This thesis

aims to assess the effectiveness of economic sanctions as a tool for conflict resolution by examining how they affect levels of violence in states that are sanctioned with the objective of conflict resolution. It will do this by answering the question: **how do economic sanctions affect conflict intensity?** To factor in the fact that the primary actors in armed conflict have changed in the 21<sup>st</sup> century the thesis will also compare whether there has been a change in how effective economic sanctions are from when states were the primary actors in conflicts compared to the current development when non-state groups have taken over that role.

The study will be based on previous research about economic sanctions and their general workings with a focus on their effectiveness. Previous research on economic sanctions and their relation to international interventions, conflict resolution and peace building will also be used to broaden the perspective of how they have been used to encourage peace. Since there is not much literature specifically on the topic of economic sanctions and conflict intensity, literature on the individual topics and similar topics will be used. The plentiful literature of quality on these individual and surrounding topics are an appropriate source to base a study such as this on. Under the Theory-chapter, I will introduce the previous research as well as my expected results for the study. Under Method and material, I will account for the materials used, explain the statistical method as well as the operationalization of the variables used. Under the Results and analysis-chapter, I will present the results and analyze them in relation to the hypotheses. Under Discussion, I will discuss my inferences based on the statistical analysis and the previous research. Under Conclusions I will summarize my findings and conclusions.

## 2 Theory

### 2.1 Previous research

#### 2.1.1 The development of economic sanctions as a tool for peace

Economic sanctions have historically been considered a policy tool of the nation-state, one that was especially used in times of war. They are intended to cause economic harm and damage to adversaries both in full-blown conflicts as well as diplomatic disagreements. Historically, international economic sanctions have primarily targeted other states as, for a long time, they were primarily considered a weapon of war (Lin 2016, 1401). During the time between the world wars, sanctions were imposed outside of the context of war. While successful against small states, they did not deter bigger states from disturbing the global order (Coates 2020). Before the American involvement in World War II, the United States were in a strategically difficult position while weighing their options for their potential non-military international intervention. These difficulties had arisen from the complicated matter of wielding economic sanctions as a weapon with enough force to significantly impair belligerents and adversaries while simultaneously not waging actual war on any party. Furthermore, there were issues regarding the legality of taking such actions while remaining outside the conflict. Even with the intention of trying to avoid war at all costs, the use of economic sanctions was regularly referred to as economic warfare (Carisch, Rickard-Martin and Meister 2017, 10).

This shows the status and reputation that economic sanctions had at the time. They were almost instinctively associated with war and aggressive actions, even when they were intended to deter states from engaging in those very same behaviors. There seemed to be a consensus that economic sanctions were a tool to be handled very carefully outside the context of war as they could inadvertently be seen as an act of war. In fact, the term was deemed so hostile that the implemented law – the Trading with the Enemies Act – avoided using the term sanctions altogether (Carisch, Rickard-Martin and Meister 2017, 11). During this time, the United States worked hard to hone the finer details of the economic sanction to make it compliant with a non-aggressive neutral stance in a time of war. By constricting enough of the belligerents' economic interests, the United States made their disapproval of the war known. By not constricting them too much, the United States made their intent to stay out of the conflict clear. This is thought to have set precedent for the more contemporary uses and forms of economic sanctions (Carisch, Rickard-Martin and Meister 2017, 11).

The background of international economic sanctions is very telling of their nature. For as long as they have existed, they have been known to have debilitating effects on those who they are imposed upon. The idea that economic sanctions are a peaceful alternative for international intervention, or maybe rather an alternative

that is more likely to result in peace, seems to be rooted in their ability to deter states from stepping out of line in the international community. The option is also convenient as it poses no significant risk to the sender state (Coates 2020). It could be argued that the idea that the crippling effects of economic sanctions would bring peace shows that the practical execution of sanctions has not changed since the times when they were used to amplify the effects of war.

It was not until the end of the Cold war that the international community could take tentative steps towards joint action for global order. Especially the United Nations were able to engage in humanitarian projects and use economic sanctions in order to achieve humanitarian goals, notably in cases where states are experiencing internal turmoil and violence is being aimed against civilians (Pape 1997, 90, Staibano and Wallenstein 2005, xv, Coates 2020, Elliott, Hufbauer and Oegg). The unified implementation of economic sanctions against belligerents became a mandatory measure for all member states to fulfill the United Nations' primary objective, collective security. UN sanctions are most commonly imposed on this theme (Staibano and Wallenstein 2005, xv). With the United States emerging as the victorious superpower, there were high expectations on their behavior in and responsibility for the international community. This newfound responsibility resulted in external pressures for reactions and actions in response to global atrocities and belligerent behavior (Elliott 2005, 3). Economic sanctions can possibly be the most popular means for reacting to and acting on international or foreign crises (Taylor 2017). In modern time, sanctions are considered a peaceful alternative to the needless violence and bloodshed of military intervention as they pose no risk to the sender state (Coates 2020).

The Global Sanctions Data Base shows that the use of unilateral as well as multilateral sanctions has increased a significant amount since the 1990s (Kirilakha, A., G. Felbermayr, C. Syropoulos, E. Yalcin and Y.V. Yotov 2020). The dataset includes sanctions implemented from 1949-2019 and shows that the last 30 years has seen more than double the number of sanctions compared to the 40 years before. Yet there does not seem to be any consensus that economic sanctions work in the sense that their objectives are fulfilled and can be credited to the sanctions. Rather there seems to be a lot of criticism against the use of economic sanctions as a tool for intervention and change, with many arguing that there are very few cases of such sanctions with documented success (Taylor 2017). There are also those who argue that the extensive use of economic sanctions has rendered them less effective than they previously were. Their stance is that as the use of economic sanctions increases, their general effectiveness seems to decrease (Coates 2020). There is a lot of uncertainty as to how a tool that was once called a terrifying economic weapon is now commonly considered to be able to bring and maintain peace and human dignity (Pape 1997, 90), especially when it does not seem to be particularly effective. This on its own would be enough to raise questions about whether economic sanctions are an appropriate tool for conflict resolution and peace building. As one of the most pressing and complicated issues of modern time, it is important that humanitarian crises caused by war are dealt with in an appropriate manner (Simms and Trim 2011, i), without worsening the effects of the conflict in an attempt to relieve them. It seems clear that the effectiveness of economic

sanctions may never have been the main reason for their use (Pape 1997, 109). The purposes and the strategic execution of economic sanctions seem to have changed in the latter part of the last century. While the practical execution, things such as form and delivery, of the economic sanctions themselves seems unchanged, they are now rarely accompanied by traditional military action. This implies that such sanctions were generally never fully effective at achieving their objectives on their own. Still, supporters maintain that sanctions play a big part in contemporary diplomacy and are still one of the most important policy-tools of the nation-state (Masters 2019, Lin 2016, 1400-1401).

### 2.1.2 Economic sanctions and the changing nature of conflict

The technological advancements of the late 20<sup>th</sup> and early 21<sup>st</sup> century have made it much easier for common people to get information about international and foreign crises. While the reality of war has always been horrific and documented, the advancements mean that actual snippets of war and violence in the forms of pictures and videos can make their way to common people's screens and newspapers. Studies have shown that this makes the public more likely to pay attention to and demand action for foreign wars or human rights abuses. They also show that world leaders are more likely to take action in the form of sanctions when their populations demand punishment for states that are committing human rights violations or engaging in otherwise aggressive behavior (Peksen, Peterson and Drury 2014, 855, 857). This suggests that states implement economic sanctions for humanitarian causes in order to appease the pressure from their populations as well as the international community. This timeline is in line with the increase of economic sanctions in conjunction with the end of the Cold war. When the public demand intervention, yet on many occasions frown upon military action, there does not seem to be many other options that would work to fulfill the objectives or at the very least appease the demands (Marcus 2010). According to a veteran UN ambassador, Sir Jeremy Greenstock, the believed reason behind the popularity of economic sanctions is that "there is nothing else between words and military action if you want to bring pressure upon a government" (Marcus 2010). Harsh words in the designated diplomatic forums do not seem to be able to get across the same message of dissatisfaction or irritation with the acts of others as sanctions do (Marcus 2010, Heitkamp 2019, 12).

A study by Lektzian and Regan regarding the effect of economic sanctions on the duration of civil conflicts has found that economic sanctions can yield good results when it comes to bringing adversarial parties to the negotiation table before the situation has escalated into armed conflict (Lektzian and Regan 2016, 555). This is in line with research on peace building and conflict transformation which states that long-term action is necessary to achieve lasting results of peace. Long-term action can tackle the causes of the conflict instead of just the symptoms, which some researchers consider to be what short-term action targets (Ropers 2002, 12,

43). Once a civil conflict is active, sanctions alone were proved to be insufficient to increase the chances of resolving the conflict (Lektzian and Regan 2016, 567). While that study does not factor in the potential developments in the effectiveness of economic sanctions over time in relation to the duration of conflict, it could possibly explain why it seems that sanctions, that have been sworn by for a long time, appear generally insufficient for these types of purposes. Though the world has seen countless technological and moral developments in the last century, economic sanctions have widely remained unchanged (Lin 2016, 1400-1401). Meanwhile, it can be argued that the practical nature of conflict itself has shifted during that same time. From being primarily fought by state armies in large battles, conflicts have evolved into having a much less conservative definition of battle grounds as well as including far more actors. A significant number of contemporary conflicts have been fought by non-state actors (Duffield 2001, 13-14, UCDP: Number of conflicts). The UCDP chart *Number of conflicts* shows the comprehensive development of armed conflicts since 1989. It shows that the number of non-state and/or one-sided conflicts has been rising since then, but especially since the beginning of the 21<sup>st</sup> century. Starting in the year 2000 the category of non-state violence passed state-based violence as most common form of armed conflict. With the exception of a few years where state-based violence overtook its place as most occurring by very slight margins, non-state violence has become more and more prevalent than state-based violence since then (UCDP).

The fact that economic sanctions are generally imposed on states likely has to do with the receptiveness of the sanctioned party. Economic sanctions are considered to be the most effective when the recipient respects the sanctioning party, the consequences of the sanction in question and the reaction of the international community should their transgressions not stop. This suggests states are the type of actor that economic sanctions are most likely to be effective towards. Furthermore, research has shown that economic sanctions are significantly more likely to be effective when imposed against a democratic rather than autocratic state. They are even less likely to be effective when the recipient is a non-state (Marineau 2020). Einisman states that economic sanctions are only effective when the sanctioned states are actively responsible for the behavior that is being targeted (Einisman 2000, 300). The absolute majority of economic sanctions aimed at ending or preventing war and one-sided violence as well as human rights violations are imposed against non-democratic states. This can be deduced by comparing the recorded sanctions in the Global Sanctions Data Base with the respective states' Freedom House score (Kirilakha, A., G. Felbermayr, C. Syropoulos, E. Yalcin and Y.V. Yotov 2020, Freedom House 2021). It can be argued that the change from states to non-state groups as the primary actors of conflict should have an effect on how they can be handled in terms of conflict resolution and termination. This significant change could have relevant consequences for the upholding of the global order. As economic sanctions are regularly imposed for this reason, there is reason to believe that their effects and effectiveness could be significantly affected by the evolution of conflicts.

## 2.2 Expected results

I expect that the results of the statistical analysis will be in line with previous research regarding the effectiveness of economic sanctions. Since there is a consensus that such sanctions are most effective when aimed at democratic states, the results should show that economic sanctions are not effective at lowering conflict intensity. This is based on the fact that the majority of states that have been on the receiving end of economic sanctions with the intent of ending or preventing conflicts are considered non-democratic states. The prevalence of non-state conflicts only makes it more likely that the results will show economic sanctions to be ineffective at lowering conflict intensity. Given the violent background of the development of international economic sanctions, it could be possible that the imposition of them actually increases conflict intensity. While this might not be very likely, the same kinds of sanctions were used to cause devastation to nations and their populations in the past. Given the clear shift in dominating kind of conflict in the 21<sup>st</sup> century, I believe there could be a difference in the effect of economic sanctions on conflict intensity in the time period 1989-1999 compared to the time period 2000-2019. In line with the previous research, economic sanctions should be less effective or even increase conflict intensity in the later time period 2000-2019.

At the very least I expect that economic sanctions will prove to be an insufficient tool for conflict resolution. This is based on the significant number of studies that have found them to be generally ineffective or insufficient on their own, regardless of objective.

## 3 Method and material

### 3.1 Method

To answer the question of how economic sanctions affect conflict intensity I will be performing quantitative and statistical analyses in the statistics program Stata. The study will be conducted using previously existing data from the Global Sanctions Data Base and the Uppsala Conflict Data Program. By using already existing data, more time and resources can be spent on conducting the study well and interpreting the results. This approach means that time was spent on combining and reshaping the existing data into more usable formats in a new dataset. The data used in this study is extensive and it would not have been possible for me to collect the relevant data by myself in nearly this capacity. While conducting a secondary analysis of quantitative data means depending on data that has been collected for a different purpose than that of this study, these sources are commonly used and intended to be used for this kind of purpose (Bryman 2011, 299-301, Höglund and Öberg 2011, 180, Kirilakha, A., G. Felbermayr, C. Syropoulos, E. Yalcin and Y.V. Yotov 2020, iii). The comprehensive data collections from the Global Sanctions Data Base and the Uppsala Conflict Data Program are extensive, reliable and of high quality and therefore appropriate for use in this study. There have been no conscious choices in regard to the selection of cases. If there is relevant data on economic sanctions and conflict intensity for a state, then that state is included in this study.

I will be conducting a panel data regression analysis using different combinations of the relevant variables. As the hypothesis concerns two variables, economic sanctions and conflict intensity, the analyses will be bivariate. However, different operationalizations are used for both variables to be able to get a closer look into the relationship between economic sanctions and conflict intensity. This will show if a certain operationalization and quantification of either variable will yield a different result. These tests will be conducted with the chosen confidence level of 95%. Since the data from UCDP has shown a significant shift in the nature of conflict starting in the 21<sup>st</sup> century, I will also be conducting separate tests for the time periods 1989-1999 and 2000-2019. This division is made due to the fact that the year 2000 is the first year that shows non-state violence over taking state-based violence. Since previous research has shown that economic sanctions are more effective when aimed towards states, there is reason to check these time periods separately. This will give an insight into how effective economic sanctions have been in fighting conflict intensity when the majority of violence was state-based compared to non-state-based. By studying these time periods as two separate ones rather than one the results will still show the general effect of economic sanctions while simultaneously showing if there is a significant difference in the effect. The specific time frame of 1989-2019 is used in the study as that is the amount of time that the UCDP has extensive data for. I will first run the regressions

on the earlier time period. The first regression will use the operationalized variables conflict intensity and cumulative economic sanctions. The second regression will use the operationalized variables conflict intensity and number of economic sanctions per year. The third regression will use the operationalized variables number of deaths per thousand inhabitants and cumulative economic sanctions. The fourth regression will use the operationalized variables number of deaths per thousand inhabitants and number of economic sanctions per year. The fifth regression will use the operationalized variables number of skirmishes per thousand inhabitants and cumulative economic sanctions. The sixth regression will use the operationalized variables number of skirmishes per thousand inhabitants and number of economic sanctions per year. This same order of regressions will then be conducted on the data from the later time period.

A regression analysis is an appropriate method for this thesis as the purpose of the study is to find the effect that economic sanctions have on conflict intensity. This method makes it possible to determine how much of an effect the independent variable has on the dependent variable (Stockemer 2019, 148). As the study is dependent on relevant data for both variables, the observational units are every year for every state that has been sanctioned in the period 1989-2019. In the data, the units are country-year. In order to see how economic sanctions have affected the conflict intensity in every individual state that has been sanctioned, this study uses panel data. Instead of doing an analysis of a cross section of subjects, the analysis will focus on the observational units over time. This means that I will be using the variation within the cases of economic sanctions in each individual state rather than the variety within all cases of economic sanctions. Using panel data as compared to cross section data or time-series data means that the study will observe several units over the same 31 years, rather than just observing several units at a given time or observing one unit over time (Frees 2004, 2). This can yield vastly different results than using cross section data as it looks for actual development. Using panel data regression with fixed effects allows me to control away potential alternative explanations in the found variation, meaning omitted variables that cause cross-country differences will not impact the results (Frees 2004, 3, 23-25).

This means that any extreme result from another observational unit's number of economic sanctions or conflict intensity during a certain time will not skew the overall results. Rather, the result will show how economic sanctions have affected the particular conflict intensity that they were targeting (Frees 2004, 6). The natural negative consequence of using this type of data is there is a higher chance of missing a year of an observational unit if no sanctions or violence was recorded during a specific year. When using cross section data, those observations would be left out of the data completely whereas in a panel data regression those years are left blank only within the observations from that particular state (Frees 2004, 6-7). By using a fixed effects model and focusing on the variation within each state, omitted variable bias can be avoided by ensuring that there are no non-observable factors that could be affecting the results of some but not all cases. The fixed effects model will remove the variation between units and instead present an estimate of the mean, or average, effect of the independent variable on the dependent variable within units (states) over the selected time period (Mummolo and Peterson 2018, 1). By using

so called time dummies, meaning to add a binary (dummy) variable, the study can be controlled for time specific fixed effects. Time specific fixed effects here refers to years that might have extreme values due to a shock because of external factors. Generally, war-years would be considered such shocks. However, since this study is very much about war already, the time dummies are intended to control for extreme bouts of violence in a specific year that can not be thought to have been caused or affected by economic sanctions (Frees 2004, 23-25, Stockemer 2019, 51).

## 3.2 Operationalization

### 3.2.1 Economic sanctions

The active imposition of economic sanctions is the independent variable of this study. I have chosen to define economic sanctions as sanctions that target trade, financial targets, and travel. Trade sanctions, financial sanctions and travel sanctions are their own categories of sanctions but are too specific to be used on their own. I have chosen this definition because these types of sanctions seem to be the most common categories of imposed sanctions with the aim to resolve conflict (Kirilakha, A., G. Felbermayr, C. Syropoulos, E. Yalcin and Y.V. Yotov 2020). The data on economic sanctions in this study is from the Global Sanctions Data Base, which sorts sanctions into the categories mentioned above as well as the categories arms and military assistance. The GSDB is a very extensive dataset on sanctions in modern times. As they have presented their own definition of the different sanctions and how they have been recorded, I will be using their definitions for the relevant types of sanctions. According to the GSDB, trade sanctions are actions that are intended to limit the target state's economic interactions by restricting international trade. This definition involves sanctions on exporting to or importing from a target state as well as limiting access to specific goods (Kirilakha, A., G. Felbermayr, C. Syropoulos, E. Yalcin and Y.V. Yotov 2020, 10-11). The dataset defines financial sanctions as sanctions that freeze the assets of foreign states or individuals, limit investments as well as limit the possibility of states paying for goods or services via credit agreement (Kirilakha, A., G. Felbermayr, C. Syropoulos, E. Yalcin and Y.V. Yotov 2020, 12). The GSDB defines travel sanctions as restrictions on travel from the targeted state into the imposing state as well as from the imposing state into the targeted state. In some cases, only diplomatic staff will be the target of such sanctions (Kirilakha, A., G. Felbermayr, C. Syropoulos, E. Yalcin and Y.V. Yotov 2020, 13). For clarity and ease, these three categories of sanctions are referred to as economic sanctions throughout this thesis.

The Global Sanctions Data Base has identified nine common categories of objectives of various kinds of sanctions. They have done this by taking part of official government orders and resolutions. These objectives are generally formulated in terms that the targeted state needs to fulfill before the sanction will be considered successful. Sanctions tend to only be lifted when the objectives are fulfilled or when the sender state withdraws them due to prolonged or obvious

failure to fulfill the objectives (Kirilakha, A., G. Felbermayr, C. Syropoulos, E. Yalcin and Y.V. Yotov 2020, 16). I will be using the GDSB's definition of the relevant different categories of sanctions. The nine categories of objectives are policy change, destabilize regime, territorial conflict, prevent war, terrorism, end war, human rights, democracy, and other. The categories of objectives for sanctions that I have deemed relevant for this study are end war, prevent war, territorial conflict, and terrorism. I have chosen these categories of objectives as they are the most relevant to the cause of conflict resolution. As the aim of the study is to assess the effect of economic sanctions on conflict intensity, only sanctions with the intent to stop violence are relevant. While sanctions for human rights or democracy could be indicative of the occurrence of violence in a state, the connection is not as clear as for the chosen categories. The GDSB defines the end war objective as sanctions that aspire to end violence in inter-state conflict, intra-state conflict, civil wars, as well as genocide (Kirilakha, A., G. Felbermayr, C. Syropoulos, E. Yalcin and Y.V. Yotov 2020, 18). The prevent war objective is defined as sanctions that aspire to deescalate military conflicts with other states. The territorial conflict objective is defined as sanctions that are imposed by a party of an armed conflict regarding territory against another party of the same conflict. The terrorism objective is defined as sanctions intended to make states stop tolerating or aiding terrorist organizations and actions (Kirilakha, A., G. Felbermayr, C. Syropoulos, E. Yalcin and Y.V. Yotov 2020, 17-18). For clarity and ease, these objectives are all considered objectives that aim to resolve conflicts and decrease violence.

The data in the Global Sanctions Data Base is arranged after targeted state. The dataset then provides information about the sending state or intergovernmental organization, the kind of sanctions and the objective of the sanctions. The dataset shows when a sanction was imposed and when that same sanction was lifted. The GDSB contains data from 1949 to 2019. However, because the data from the Uppsala Conflict Data Program only stretches from 1989 to 2019, only sanctions that were active in this time are used in the study. Based on the information provided in the GDSB, a new dataset was compiled that operationalized and quantified the variable economic sanctions. Every state with relevant sanctions and conflict data is used in this study and each state is observed 31 times, one observation per year from 1989 to 2019. This means every year for every specific country is considered its own unit of observation in the study. From the information of the duration, in terms of starting year and ending year, of specific sanctions, three data columns were created to quantify economic sanctions.

One, which will not be used in any regression, states whether an economic sanction was imposed that year. This is a dummy variable where the only two options are yes or no. The other column is an operationalization of economic sanctions that is called number of economic sanctions per year. By using the start and end year of imposed sanctions, the number of active economic sanctions at any given time could be calculated. This means if several parties sanction a target separately over the same number of years, these economic sanctions overlap. This means a target state can have many active sanctions imposed on them at the same time. This operationalization of economic sanctions is used in order to see if the number of sanctions at a given time have a significant effect on conflict intensity.

The third column is an operationalization of economic sanctions that is called cumulative economic sanctions. By using the start and end year of imposed sanctions as well as the number of economic sanctions per year, a calculation that deduced the cumulative number of economic sanctions per year could be made. In this new dataset, the cumulative economic sanctions are calculated based on the number of active economic sanctions per year as well as the duration of each individual sanction. This means that a sanction that is imposed in 1997 gets the value 1 during the year of its implementation (in this case 1997). If that specific sanction is still active in 2004, that sanction now has the value 8 in 2004. For every active year, a sanction increases in value by 1. If there are several sanctions active at the same time, the same calculation applies to them. If several, say 5, sanctions are imposed in the same year and are active for the same number of years, the cumulative value for that year is immediately 5. If no other sanctions are imposed on the target, then the cumulative number of the sanctions will increase by 1 for every active sanction per year. In this case, that means there will be an increase by 5 every year as long as those economic sanctions are active. This operationalization has been made to be able to see whether the longevity of economic sanctions makes a difference on the effect on conflict intensity. By using both the number of economic sanctions per year and cumulative economic sanctions as different operationalizations of the same variable, the results can give an insight into whether economic sanctions have a different effect on conflict intensity when they are a long-term action rather than a short-term action. This could potentially show if economic sanctions are more effective when several states and/or intergovernmental bodies overwhelm the target with sanctions or when the effect of the sanctions add up over time.

### 3.2.2 Conflict intensity

Conflict intensity is the dependent variable of this study. As there is no commonly established definition of conflict intensity, I have decided to create an index to operationalize it for this study. This index is based on the number of battle or conflict related deaths and the number of skirmishes. In this study, skirmish is taken to mean violent occasion. This includes more organized violence on battlegrounds as well as different kinds of one-sided attacks. All violent occasions that are recorded are included in the data. Both factors are quantified using data from the Uppsala Conflict Data Program. By altering the indicators and downloading the data of each individual state included in the study, specific numbers for every state and year were extracted and used in the new dataset.

To make the data simpler to use and read, both number of deaths and number of skirmishes are calculated per one thousand inhabitants. This makes the varying conflict intensities over the many observational units more even both across and within states. The point of this is to ensure values are a bit closer to each other than in their full form so that the data presentation is not skewed. The values of the number of deaths per thousand inhabitants and the number of skirmishes per thousand inhabitants in each specific year and state is then combined in the index. In this index a death has the value 2 while a skirmish has the value 1. This means

that the number of deaths per thousand inhabitants is multiplied by 2 and added with the number of skirmishes per thousand inhabitants. I have chosen this definition of conflict intensity because death and human suffering are commonly considered the worst effects of war (Flintoft 2018). The number of skirmishes is used to quantify human suffering in another term than only deaths, as conflict related skirmishes can result in deaths as well as injuries and destruction. It is important to note that there has been a conscious decision to remove the observational unit Rwanda 1994. This unit of observation was an outlier and skewed the results of the analyses. The level of violence of Rwanda 1994 was so extreme (UCDP: Rwanda) that it cannot be considered to have been caused or affected by economic sanctions.

The conflict intensity index creates the operationalization of conflict intensity that goes by the same name in this study. However, to get more telling results, the constituents of the index will also be tested in regressions on their own. Those separate operationalizations of conflict intensity are called deaths per thousand inhabitants and skirmishes per thousand inhabitants. The use of these definitions of conflict intensity separately as well as in the index could give a more realistic view of whether the number of deaths or number of skirmishes are most affected by economic sanctions.

## 4 Results and analysis

All regressions are conducted with the confidence level 95%. All statistically significant results will be presented with at least one star (\*). The **bolded** value in every regression table signifies the coefficient value. This value shows the effect of the independent variable of the dependent variable when the independent variable increases by one unit. The value N refers to the sample size of each test.

In line with previous research, I expect that the regression analyses will show that economic sanctions are an insufficient tool for international intervention and conflict resolution. Since prior research has shown that economic sanctions are most effective against democratic states and significantly less effective against autocratic states, it is reasonable to assume that economic sanctions are not very effective in this regard. This is because many states that are sanctioned with the relevant objectives of this study are not considered fully democratic. A clear majority of the cases in this study involve non-democratic state-based violence or non-democratic non-state violence. Since economic sanctions are considered ineffective at fully achieving their objective even against democratic states, the results should possibly show that economic sanctions are not very effective at lowering conflict intensity. However, given the harmful background of economic sanctions, they should not have a significant effect on lowering conflict intensity. Rather, it seems more likely that they could have the opposite effect.

### 4.1 The effect of economic sanctions on conflict intensity in the years 1989-1999

As state-based conflicts were the most prevalent kind during this time, there is reason to assume that economic sanctions could be effective in lowering conflict intensity. I do not expect the regression analyses to show any statistically significant results of economic sanctions lowering conflict intensity during the period 1989-1999. However, if they do show statistically significant results, I expect economic sanctions to have a small lowering effect on conflict intensity.

#### 4.1.1 Regression analysis – Conflict intensity and Cumulative economic sanctions

The operationalization cumulative economic sanctions represents the long-term action of economic sanctions to lower conflict intensity in the target states. Previous research shows that long-term action is a more effective strategy for conflict resolution than short-term action since it tends to target the root causes of conflict rather than just the symptoms. This operationalization only results in a high value if the individual active sanctions in a given year have been active for several years. Since a high value could reasonably be caused by just a few sanctions over time, there is reason to believe this operationalization of economic sanctions could show

a result where conflict intensity is lowered. This could be due to the long-term effort of the sender states to resolve the conflict and bring parties in the target state to the bargaining table. In line with previous research, I expect that cumulative economic sanctions could result in lower conflict intensity. However, I do not expect the results to show a substantial effect.

Table 1. Regression table - Conflict intensity and Sanctions cumulative 1989-1999

<b>Conflict intensity</b>	
<b>Sanctions cumulative</b>	<b>-0.0388</b> (0.261)
<b>_cons</b>	2.245 (5.564)
<b>N</b>	615
<b>r2</b>	0.0173
<b>ymean</b>	3.915

Standard errors in parentheses  
 \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

The table above shows the results of the regression analysis. The bolded coefficient value states that an increase of 1 cumulative economic sanction per year results in changing the conflict intensity by -0.0388, which signifies that conflict intensity decreases by 3,88%. However, this result is not statistically significant, as can be seen by the lack of star accompanying the value. This means that the result cannot be considered relevant or useable as the effect could instead be equal to 0.

The result supports the hypothesis that cumulative economic sanctions do not have a substantial effect on conflict intensity as well as the hypothesis that economic sanctions in general have an insufficient effect on conflict intensity. This result shows that the long-term economic sanctions that were active in 1989-1999 were not effective in affecting conflict intensity. This is in line with the literature that states that economic sanctions are not effective.

#### 4.1.2 Regression analysis – Conflict intensity and Economic sanctions per year

The operationalization economic sanctions per year represents the number of active economic sanctions during a given year and generally records shorter-term action against conflict. A high number of this variable is achieved when several states impose economic sanctions on a target in the same year. This method is more congruent with overwhelming a target with sanctions, which can be argued to at most treat the symptoms of a conflict rather than the causes. In line with previous research, I do not expect economic sanctions per year will lower conflict intensity. Rather the harmful nature of economic sanctions could mean that the imposition of many sanctions simultaneously could negatively affect conflict resolution. A statistically significant result could instead show a rise in conflict intensity.

Table 2. Regression table - Conflict intensity and Sanctions per year 1989-1999

Conflict intensity	
<b>Sanctions per year</b>	<b>1.281</b> (1.724)
<b>_cons</b>	1.487 (5.470)
<b>N</b>	616
<b>r2</b>	0.0179
<b>ymean</b>	3.909

Standard errors in parentheses  
 \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

The table above shows the results of the regression analysis. The bolded coefficient value states that an increase of 1 economic sanction per year results in conflict intensity becoming higher by 1.281, or 128,1%. However, this result is not statistically significant. This means that the result of economic sanctions per year raising conflict intensity by 128,1% cannot be considered a relevant result.

This result is in line with previous research that economic sanctions are not effective and the hypothesis that economic sanctions per year are not effective at lowering conflict intensity. The result shows that the short-term economic sanctions that were active in 1989-1999 were ineffective at lowering conflict intensity.

#### 4.1.3 Regression analysis – Deaths per thousand inhabitants and Cumulative economic sanctions

As stated in 4.1.1, long-term action is considered more effective at contributing to conflict resolution and de-escalation of violence. Cumulative economic sanctions could therefore potentially have a decreasing effect on the number of deaths per thousand inhabitants in conflict. However, I expect that cumulative economic sanctions will not have a statistically significant lowering effect on this operationalization of conflict intensity. Since this operationalization is narrower and more specific than the conflict intensity index, this could mean that a smaller variation will be observed.

Table 3. Regression table - Deaths per thousand and Sanctions cumulative 1989-1999

Deaths per thousand	
<b>Sanctions cumulative</b>	<b>-0.0204</b> (0.130)
<b>_cons</b>	1.110 (2.778)
<b>N</b>	615
<b>r2</b>	0.0172
<b>ymean</b>	1.927

Standard errors in parentheses  
 \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

The table above shows the results of the regression analysis. The bolded coefficient value shows that an increase of 1 cumulative sanction per year lowers the deaths per thousand by 0.0204, or 2,04%. As this result is not statistically significant, the effect cannot be considered factual. This means cumulative economic sanctions cannot be considered to have decreased the number of deaths per thousand.

The result shows that cumulative economic sanctions that were active in 1989-1999 were not effective at lowering the number of deaths per thousand inhabitants. It also shows that they do not have a significant effect on conflict intensity in general, which is in line with previous research.

#### 4.1.4 Regression analysis – Deaths per thousand inhabitants and Economic sanctions per year

As stated previously in 4.1.2, the short-term effort of this operationalization of economic sanctions could result in more intense conflict rather than conflict resolution. This operationalization of conflict intensity is narrower than the conflict intensity index. This will likely result in economic sanctions per year having a lower effect on deaths per thousand compared to on the conflict intensity index. I do not expect the results to show that economic sanctions per year decreases the number of dead per thousand inhabitants.

Table 4. Regression table - Deaths per thousand and Sanctions per year 1989-1999

Deaths per thousand	
<b>Sanctions per year</b>	<b>0.630</b> (0.861)
<b>_cons</b>	0.731 (2.731)
<b>N</b>	616
<b>r2</b>	0.0178
<b>ymean</b>	1.924

Standard errors in parentheses  
 \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

The table above shows the results of the regression analysis. The bolded coefficient value shows that an increase of 1 sanction per year raises the number of deaths per thousand inhabitants by 0.630, or 63%. The lack of star shows that this result is not statistically significant which means that the result is not credible.

The result shows that the short-term sanctions that were active in 1989-1999 did not effectively or significantly affect the number of deaths per thousand inhabitants. This supports the prior research as well as the stated hypotheses.

#### 4.1.5 Regression analysis – Skirmishes per thousand inhabitants and Cumulative economic sanctions

In line with the previous hypotheses, in 4.1.1 and 4.1.3, a long duration of economic sanctions constitutes long-term action for conflict resolution which is more effective at accomplishing peace building objectives. While this could result in a lowering effect on the conflict intensity, I do not expect there to be a significant effect. The operationalization of conflict intensity as number of skirmishes per thousand is even narrower than the other two. This could mean the result will show a lower effect than in the previous regressions.

Table 5. Regression table – Skirmishes per thousand and Sanctions cumulative 1989-1999

Skirmishes per thousand	
<b>Sanctions cumulative</b>	<b>0.00191**</b> (0.000633)
_cons	0.0259 (0.0135)
N	615
r2	0.0684
ymean	0.0604

Standard errors in parentheses

\* p<0.05, \*\* p<0.01, \*\*\* p<0.001

The table above shows the results of the regression analysis. The bolded coefficient value shows that an increase of 1 cumulative economic sanction changes the number of skirmishes per thousand inhabitants by 0.00191, or 0,191%. This result significant by the two-star standard which means there is 99% certainty that the effect is not actually 0. While the effect is not very high, it is a substantial result as it suggests that the long-term effort of cumulative economic sanctions worsen conflict situations by increasing the number of skirmishes.

This result goes against the hypothesis that this regression would not have a statistically significant result. However, it not only shows that cumulative economic sanctions in 1989-1999 were insufficient to decrease the number of skirmishes, but also that such sanctions risk increasing the conflict intensity they are intended to terminate. This is in line with the literature that states that economic sanctions are ineffective as well as the hypothesis that economic sanctions can increase conflict intensity.

#### 4.1.6 Regression analysis – Skirmishes per thousand inhabitants and Economic sanctions per year

As per the previous hypotheses, in 4.1.2 and 4.1.4, short-term efforts could be more likely to worsen conflict situations rather than promote peaceful resolution. The narrower definition of conflict intensity could result in a lower effect compared to

earlier regressions. It is unlikely that the regression will show a significant decrease in conflict intensity, based on the literature it could be more likely to result in an increase of conflict intensity.

Table 6. Regression table - Skirmishes per thousand and Sanctions per year 1989-1999

Skirmishes per thousand	
<b>Sanctions per year</b>	<b>0.0215***</b> (0.00413)
_cons	0.0254 (0.0131)
<b>N</b>	616
<b>r2</b>	0.0967
<b>ymean</b>	0.0604

Standard errors in parentheses  
 \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

The table above shows the results of the regression analysis. The bolded coefficient value states an increase of 1 economic sanction per year results in an increased number of skirmishes per thousand by 0.0215, or 2,15%. This result is statistically significant as signified by the tree stars. This is a consequential result as it suggests an increase in conflict intensity caused by sanctions that aim to terminate conflict and build peace.

This result is in line with the hypothesis that a higher number of economic sanctions per year can cause an increase in conflict intensity. It is also in line with the literature that states that economic sanctions are insufficient tools for conflict resolution.

## 4.2 The effect of economic sanctions on conflict intensity in the years 2000-2019

Since non-state violence has been the most prevalent kind during this period, it is likely that the effect of economic sanctions on conflict intensity will differ from that of the previous time period. I expect that economic sanctions have become less effective at resolving conflicts compared to the previous period. I do not expect any significant results that show the decrease of conflict intensity, rather the opposite effect seems more likely based on the prior research.

### 4.2.1 Regression analysis – Conflict intensity and Cumulative economic sanctions

The previous hypotheses regarding long-term efforts for conflict resolutions being more effective are still relevant in the time period 2000-2019. However, I expect

that cumulative economic sanctions will be less effective at lowering conflict intensity due to the prevalence of non-state violence and actors.

Table 7. Regression table - Conflict intensity and Sanctions cumulative 2000-2019

Conflict intensity	
<b>Sanctions cumulative</b>	<b>0.0504*</b> (0.0220)
<b>_cons</b>	2.643* (1.176)
<b>N</b>	1120
<b>r2</b>	0.0307
<b>ymean</b>	2.165

Standard errors in parentheses  
 \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

The table above shows the results of the regression analysis. The bolded coefficient value shows that an increase of 1 cumulative sanction per year results in an increase in conflict intensity by 0.0504, or 5,04%. As this result is statistically significant it means that the long duration of an economic sanction increases conflict intensity by 5,04% per year. This result suggests that long-term economic sanctions have led to an increase of conflict intensity in the 21<sup>st</sup> century.

This result is in line with the hypothesis that economic sanctions can intensify conflicts rather than relieve them. It is also in line with the literature that states that economic sanctions are insufficient tools to achieve their objectives.

#### 4.2.2 Regression analysis – Conflict intensity and Economic sanctions per year

The previous hypotheses regarding limited and momentary actions for conflict resolution and their possible potential to intensify conflict are still relevant in this time period. However, due to the pervasiveness of non-state conflicts, I expect that economic sanctions per year will be less effective at lowering conflict intensity in this time period. Rather, overwhelming a target with sanctions could have the opposite effect.

Table 8. Regression table - Conflict intensity and Sanctions per year 2000-2019

Conflict intensity	
<b>Sanctions per year</b>	<b>0.692***</b> (0.194)
<b>_cons</b>	2.218 (1.181)
<b>N</b>	1120
<b>r2</b>	0.0375
<b>ymean</b>	2.165

Standard errors in parentheses  
 \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

The table above shows the results of the regression analysis. The bolded coefficient value states that an increase of 1 economic sanction per year leads to an increase of conflict intensity by 0.692, or 69,2%. This result is statistically significant and shows that the imposition of a new sanction causes a high increase of conflict intensity. This suggests that short-term economic sanctions have increased conflict intensity in the 21<sup>st</sup> century.

The result is in line with the previous research that shows that economic sanctions are not effective as well as with the hypothesis that overwhelming a target with economic sanctions is more likely to increase rather than decrease conflict intensity.

#### 4.2.3 Regression analysis – Deaths per thousand inhabitants and Cumulative economic sanctions

The previous hypotheses that long-term action is necessary for successful conflict resolution are still relevant for this regression. Due to the increased number of non-state actors involved in conflict, I expect that cumulative economic sanctions will be less effective at reducing the number of deaths per thousand inhabitants. I do not expect there to be a significant effect on number of deaths per thousand inhabitants.

Table 9. Regression table - Deaths per thousand and Sanctions cumulative 2000-2019

Deaths per thousand	
<b>Sanctions cumulative</b>	<b>0.0228*</b> (0.0103)
<b>_cons</b>	1.309* (0.549)
<b>N</b>	1120
<b>r2</b>	0.0306
<b>ymean</b>	1.008

Standard errors in parentheses  
\* p<0.05, \*\* p<0.01, \*\*\* p<0.001

The table above shows the results of the regression analysis. The bolded coefficient value shows that an increase of 1 cumulative economic sanction per year results in an increase in the number of deaths per thousand inhabitants by 0.0228, or 2,28%. As the result is statistically significant, it shows that the number of deaths per thousand increases for every year the same economic sanction is active. This suggests that long-term economic sanctions have increased the number of deaths in conflicts per thousand inhabitants in the 21<sup>st</sup> century.

This is not in line with the hypothesis that there would be no significant effect on the number of deaths per thousand. However, it is in line with the previous research as well as the hypothesis that economic sanctions are ineffective at fulfilling conflict terminating objectives.

#### 4.2.4 Regression analysis – Deaths per thousand inhabitants and Economic sanctions per year

The previous hypotheses regarding the effect that short-term economic sanctions and actions can have on conflict intensity are still relevant here. Due to the change in relevant actors in conflicts, I expect that economic sanctions per year will be less effective at lowering the number of deaths per thousand inhabitants. Given the debilitating effects economic sanctions can have, the opposite effect is more likely.

Table 10. Regression table – Deaths per thousand and Sanctions per year 2000-2019

Deaths per thousand	
<b>Sanctions per year</b>	<b>0.323***</b> (0.0908)
<b>_cons</b>	1.105* (0.552)
<b>N</b>	1120
<b>r2</b>	0.0378
<b>ymean</b>	1.008

Standard errors in parentheses  
\* p<0.05, \*\* p<0.01, \*\*\* p<0.001

The table above shows the result of the regression analysis. The bolded coefficient value states that an increase of 1 economic sanction per year results in an increase in the number of deaths per thousand by 0.323, or 32,3%. As this result is statistically significant, it shows that the implementation of a new economic sanction causes a considerable increase in number of deaths per thousand inhabitants. This suggests that short-term economic sanctions have increased the loss of life in conflict in the 21<sup>st</sup> century.

The result is in line with the previous research that shows that economic sanctions are not effective as well as with the hypothesis that many simultaneous economic sanctions are more likely to increase conflict intensity.

#### 4.2.5 Regression analysis – Skirmishes per thousand inhabitants and Cumulative economic sanctions

The prior hypotheses that long-term efforts are more successful at terminating conflicts are still relevant for this time period. However, due to most conflicts being non-state conflicts, I expect that cumulative sanctions will result in a larger increase in the number of skirmishes per thousand inhabitants compared to the effect in 1989-1999.

Table 11. Regression table - Skirmishes per thousand and Sanctions cumulative 2000-2019

<b>Skirmishes per thousand</b>	
<b>Sanctions cumulative</b>	<b>0.00469**</b> (0.00159)
<b>_cons</b>	0.0237 (0.0851)
<b>N</b>	1120
<b>r2</b>	0.0378
<b>ymean</b>	0.149

Standard errors in parentheses  
 \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

The table above shows the results of the regression analysis. The bolded coefficient value states that an increase of 1 cumulative economic sanction per year would lead to an increase in the number of skirmishes per thousand inhabitants by 0.00469, or 0,469%. This result is statistically significant and shows that the number of skirmishes per thousand increases for each year the same sanction is active. This suggests that longstanding economic sanctions have contributed to an increased number of skirmishes per thousand inhabitants in the 21<sup>st</sup> century.

This is line with the prior research regarding that economic sanctions are not effective. The result is also in line with the hypothesis that cumulative economic sanctions would cause a bigger increase in number of skirmishes per thousand inhabitants in the period 2000-2019 compared to 1989-1999.

#### 4.2.6 Regression analysis – Skirmishes per thousand inhabitants and Economic sanctions per year

The earlier hypotheses about short-term actions and their effect on conflict resolution and conflict intensity are still relevant. Since most contemporary conflicts are non-state conflicts, I expect that sanctions per year will result in a larger increase of the number of skirmishes per thousand inhabitants in this period compared to in 1989-1999.

Table 12. Regression table - Skirmishes per thousand and Sanctions per year 2000-2019

<b>Skirmishes per thousand</b>	
<b>Sanctions per year</b>	<b>0.0461**</b> (0.0141)
<b>_cons</b>	0.00750 (0.0857)
<b>N</b>	1120
<b>r2</b>	0.0332
<b>ymean</b>	0.149

Standard errors in parentheses  
 \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

The table above shows the results of the regression analysis. The bolded coefficient value shows that an increase of 1 economic sanction per year results in an increased number of skirmishes per thousand inhabitants by 0.0461, or 4,61%. This statistically significant result shows that the number of skirmishes per thousand increases when a new sanction is imposed on a target. This suggests that short-term economic sanctions have contributed to an increased number of skirmishes per thousand inhabitants in the 21<sup>st</sup> century.

This is in line with the literature that shows that economic sanctions are not effective. The result is also in line with the hypothesis that economic sanctions per year would cause a bigger increase in number of skirmishes per thousand inhabitants in the period 2000-2019 compared to 1989-1999.

## 5 Discussion

Regression analyses using different operationalizations for each variable were done to test the effect of economic sanctions on conflict intensity in two different time periods. The results for the time 1989-1999 show that both cumulative economic sanctions and economic sanctions per year had a statistically insignificant effect of conflict intensity and number of deaths per thousand inhabitants. This is in line with the previous research which states that economic sanctions are generally ineffective at obtaining their objectives. However, they are usually only considered to have a low success rate, whereas these results imply that economic sanctions had no discernible effect at all. The results also show that cumulative economic sanctions and economic per year had a significant effect on the number of skirmishes per thousand inhabitants. This effect resulted in an increase of conflict intensity in both cases, which strengthens the prior research's claim that economic sanctions do not work. This result suggests that economic sanctions were not only ineffective but actively damaging as tools in conflict resolution efforts during 1989-1999. This is in line with the hypothesis that economic sanctions are ineffective and inappropriate tools for conflict resolution as well as with the literature that states that economic sanctions were developed from violence and have remained unchanged since.

The results for the time 2000-2019 shows that cumulative economic sanctions and economic sanctions per year both had significant effects on conflict intensity, number of deaths per thousand inhabitants and number of skirmishes per thousand inhabitants. The results are in line with the previous research that shows that economic sanctions are not effective at fulfilling their objectives. The prior research also state that economic sanctions are insufficient when it comes to bringing adversarial parties to the negotiating table during an active armed conflict. The results support the hypotheses that economic sanctions are an inappropriate tool for peace as the tests show that they seem to intensify conflicts rather than subdue them. The hypothesis regarding economic sanctions becoming less effective and/or more damaging in the later time period is also supported by the results. The statistically significant effects from 1989-1999 were more than doubled in both cases in the corresponding tests for 2000-2019. This result supports the hypothesis that the changing nature of conflict, primarily in terms of relevant actors, has made conflicts less likely to be solved or alleviated by economic sanctions. This hypothesis is supported in the literature as there is a consensus that economic sanctions are most effective when aimed at democratic states. This in combination with the previous research that shows the increase of non-state violence into the majority type of conflict suggests that economic sanctions have become less effective at resolving conflicts in the 21<sup>st</sup> century.

The result of the statistical analysis has been effective at answering the research question regarding how economic sanctions affect conflict intensity. Economic

sanctions seem to have had no significant ability to decrease conflict intensity, rather every significant result has shown that they increase conflict intensity. This result is particularly true for the time 2000-2019, when most conflicts have been non-state conflicts. This suggests that economic are an inappropriate tool to achieve peace as they seem to cause more violence and loss of life in the affected states. This is in line with prior research which states that economic sanctions are only considered the peaceful alternative because they pose no military risk to the sender state. Overall, the results of the study are relevant as they suggest that a revision of common international intervention and conflict resolutions practices is needed to be able to effectively resolve conflicts by non-military means.

Significant precautions were taken to ensure credible results. By conducting the statistical analysis as panel-data regressions with fixed effects and time-specific fixed effects, the study should have effectively avoided omitted variable bias. This means the results are much more certain to have been caused by the independent variable than if those efforts had not been made. As each test compared the conflict intensity within each individual state during the relevant years and presented the mean effect of economic sanctions on the specific conflict they were meant to resolve, the results are much more certain than if a cross section regression had been used. As this study only aimed to assess the effect of economic sanctions on conflict intensity, no control variables were used. Including control variables could possibly produce different results that would lead to different inferences. For example, previous research states that economic sanctions can be effective when used together with military intervention. This study has not taken into consideration whether military interventions have taken place during the same time. A factor that makes interpreting the results more difficult is that there is no way to ensure economic sanctions were not imposed because of increases in conflict intensity. In that case, economic sanctions are not responsible for increasing the conflict intensity. However, the result would still suggest that economic sanctions are ineffective tools for decreasing conflict intensity.

## 6 Conclusion

This study has aimed to assess the effect of economic sanctions on conflict intensity. The results of the study suggest that economic sanctions are ineffective tools for conflict resolution that are more likely to increase, rather than decrease, conflict intensity. The study has also found that both definitions of economic sanctions actively increased all definitions of conflict intensity in the time period 2000-2019. The results also show that the effect of both definitions of economic sanctions on number of skirmishes per thousand inhabitants was doubled in 2000-2019 compared to 1989-1999. These findings imply that economic sanctions are an ineffective and inappropriate tool for conflict resolution that are only the non-violent alternative to intervention for those who impose the sanctions rather than those who are targeted by the economic sanctions.

The results of this study open for new important matters that need to be resolved to be able to find effective tools for non-military intervention and conflict resolution. If economic sanctions are not effective on their own, the correct combination of actions needs to be deduced so that conflicts can be resolved without being worsened by intervenors. If economic sanctions are not effective at all, new approaches and tools need to be developed to ensure effective and humanitarian conflict resolution practices. There is a lot of potential to do more in depth studies on this topic as it is increasingly relevant and could result in harmful practices being phased out of use in favor of actually peaceful tools for peace.

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