

THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

DEPARTMENT OF POLITICAL SCIENCE

Factors Affecting Democratization in Post Civil War Countries

THOMAS SCHINDLER
SPRING 2023

A thesis
submitted in partial fulfillment
of the requirements
for a baccalaureate degree
in Social Data Analytics
with honors in Social Data Analytics

Reviewed and approved* by the following:

Andrew Vitek
Professor of Political Science
Thesis Supervisor

Sona Golder
Professor of Political Science
Honors Advisor

*Electronic approvals are on file.

ABSTRACT

Why do some countries democratize after civil wars while others do not? This thesis will empirically test this question looking at the different factors affecting democratization following a civil war. It includes 92 conflicts and studies each of the ten years following the civil war. I study four explanatory variables: length, casualties, war type, and outcome. I test these variables on an OLS regression where my dependent variable is democracy score and a logit model where the dependent variable is whether the country increased in democracy level since the wars end. The results show that the two significant factors are length of the civil war and whether the war was fought over central control of the government. Length is shown to have a negative relationship whereas a war for central control is found to have a positive relationship with democracy.

TABLE OF CONTENTS

LIST OF TABLES	iii
LIST OF FIGURES.....	iv
ACKNOWLEDGEMENTS	v
Chapter 1 Introduction	1
Chapter 2 Literature Review	3
Chapter 3 Theoretical Approach	10
Chapter 4 Data and Methodology	18
Chapter 5 Results	24
Chapter 6 Conclusion	31
Appendix: OLS and Logit Regression with Casualties.....	33
Bibliography	35

LIST OF TABLES

Table 1: <i>continuous variable statistics</i>	21
Table 2: <i>democratization variable statistics</i>	21
Table 3: <i>binary variable statistics with and without missing data</i>	21
Table 4: <i>OLS regression results</i>	24
Table 5: <i>logit regression results</i>	25
Table 6: <i>independent variable's marginal effect on increase in democracy's probability being 1</i>	26

LIST OF FIGURES

Figure 1: *predicted probability of country increasing in democracy based on length of war*....28

Figure 2: *predicted probability of country increasing in democracy based on war for central control*.....27

ACKNOWLEDGEMENTS

I would first like to extend my gratitude and thanks to my thesis honors advisor Dr. Andrew Vitek for his immeasurable help in the development, drafting, and editing of this thesis.

I would also like to thank Dr. Marie Hojnacki and Dr. Sona Golder for their time spent reading and offering advice that was critical for completing this thesis.

I would lastly like to thank my friends and family for their support of me throughout my entire college education and thesis writing process.

Chapter 1

Introduction

Why do some countries democratize after a civil war while others do not? Representative democratic states have risen significantly since the industrial revolution in the 1800s, yet they remain absent in many parts of the world. Scholars have increasingly questioned how it is that a country can transition into a democracy. One way this can occur is regimes being toppled by force through civil wars. Civil wars do not, however, always yield the same result, even in similar regions. Take, for example, Liberia who has experienced significant growth since their civil war in the 1990s whereas the Republic of Congo has experienced negative growth. This paper is dedicated to determining and studying the factors that result in a country being able to democratize after a civil war.

Democracies are generally considered to be desirable for a country. They all make the core attempt of increasing civic participation and protecting individual personal liberties. The importance of these means all paths toward democratization should be explored extensively. Although peaceful attempts might be preferred, they are not always guaranteed to succeed. The forceful overthrow of a regime through the means of civil war is a legitimate path toward democracy and factors affecting this path merit our understanding.

What we know about civil wars resulting in democratic regimes has been considered in different ways throughout the literature, however, all have had differing results. Overall, there is no current consensus on what the explanatory factors are and what magnitude, and sometimes direction, the factors have on democratization. My study works to clean up these results and provide additional insight into this question. My first step in accomplishing this is to capture the democratic trajectory that a country experiences in the ten years after a war. This way I can see

countries that may have quickly democratized but collapsed as well as countries that have begun to slowly democratize. I will also use a new measure democracy that better encompasses the core democratic principles.

I will study all the major factors that have been previously considered in literature: the type and outcome of the war, the length of the war, and the total number of casualties. These independent variables and list of conflicts come from the Correlates of War dataset. To model these variables relationship with democratization, I use both a logit and OLS regression.

My results in both models show that the key variables influencing democracy are the length of the war and whether a war is fought over central control of the country. Length is found to have a negative impact on democratization while a war for central control is found to have a positive impact. Either a rebel or government victory outcome and the number of casualties are found to have no effect on democratization.

Chapter 2

Literature Review

Civil conflicts have dramatically increased within the last several years, a rise that has coincided with an increase in democracies. Despite their destructive nature, civil wars are often seen by governments and citizens as a legitimate path toward democratization (Huang 2017). However, there are many paths a country can take after a civil war including the 'conflict trap', authoritarianism, or a democracy. These paths can be explained by many things including the fundamental differences of each civil conflict. For instance, wars differ in type, severity, and outcome. This section will begin by explaining these differences and why they occur as well as considering what impact they have on democratization. There has been extensive research on the relationship between democratization and civil wars that has produced several explanations. These explanations, however, have been highly inconsistent.

Causes and Types of Civil Wars

Weaker states, and less democratic ones, are more likely to break into civil war (Gurses and Mason 2010). In an attempt to classify these wars, we can first separate what the initial cause is. Three traditional root causes of a civil war come in a sense of political grievances, lack of economic mobility, and when ruling elites trigger conflict (Matsumoto 2016, Collier and Hoeffler 1999). In this sense, wars might be fought with a rebel group that has the direct attempt to take over the country, or a situation where civilians seemingly take up arms over their grievances.

We can also separate wars into similar types based on how it is fought. One example is identity wars or wars fought over ethnic or religious reasons. Ethnic versus non-ethnic wars do not have the same causes as ethnic wars are far more likely to be fought over the political

grievances type (Sambansis 2001). Traditional wars might also morph into an ethnic civil war as ethnic groups and leaders are forced to take sides in a conflict that otherwise would not involve them (Dyrstad 2012). However, it is shown that the factors that show which countries are at risk of civil war are not their ethnic or religious characteristics, it is instead conditions that favor insurgency which include poverty, political instability, rough terrain, and large populations (Fearon and Laitin 2003). Either way, identity wars tend to be fought in a highly irregular format making them of interest for peace prospects (Kalyvas 2009).

Balcells and Kalyvas 2014 provide a different perspective on the type of wars separating them between conventional, irregular, or symmetric nonconventional conflicts. These categories are used to show differing war durations, severity, civilian victimization, and outcomes. Conventional refers to wars where both sides have the ability to field sophisticated armies. Irregular wars are fought in a guerilla fashion and non-conventional wars are fought against rebels who have low levels of sophistication. As these categories change several dimensions of a war, they are likely to affect post-war democratization (Balcells and Kalyvas 2014).

Civil War Severity

The next dimension of civil wars is that they largely differ in terms of their severity. Severity is used typically to describe how bloody the war is measured with the total number of casualties as well as how long it lasts. Firstly, the act of third-party intervention in civil wars is relatively commonplace. Third-party intervention has been separated into two categories, peacekeeping and mediation. Mediation is the process of facilitating settlements whereas peacekeeping aims to keep settlements from collapsing. When there is a third-party intervention, in isolation, either peacekeeping or mediation strategies can be effective in lowering the total number of battlefield casualties (Beardsley and White 2019). This is because they can help create

lulls in fighting which is when negotiations may occur. There is an additional interactive effect where mediation and peacekeeping together help reduce conflict by an even greater amount (Beardsley and White 2019). This interaction is shown to be a result of when peacekeeping and mediation occur simultaneously rather than when one precedes the other. Additionally, regime status has an effect on severity (Lacina 2006). While rarer, democracies have a lower level of casualties than other regimes states. The type of war also has the strong potential to change this effect. Religious and identity wars do not increase violence while heterogeneous state conflicts have (Lacina 2006). Considering Balcells and Kalyvas 2014 again, they suggest it is irregular conflicts that are fought the longest while other forms of conflict are shorter and deadlier.

In terms of war duration, five factors are primarily shown. Wars that are from coups, from the former USSR region, and anti-colonial wars all tend to be brief. In contrast, wars that are fought over land or have ethnic ties are relatively moderate to long length (Fearon 2004). A civil war's severity has been shown to affect its long term peace standings which will also impact democratization (Beardsley and White 2019).

Civil War Outcomes

Literature considers civil war outcomes as either an outright victory by either the rebel group or government or a settlement of some kind between groups (Balcells and Kalyvas 2014, Prorok 2016, Kalyvas 2009, Akcinaroglu). They find evidence to suggest that it is irregular conflicts that are more often won by incumbents while conventional wars are won by rebels. Another find here is that irregular conflicts are likely to lead to more state-building and social change, an important consideration for democratization.

We can also explore civil war outcomes differently through the lens of dyadic relationships between the governments and rebel groups. Since the modern era, about half of all

civil wars have been fought by more than one rebel group (Walter 2018). Dyadic relationships form between these groups that can change the outcomes; alliances of multiple rebel groups have been found to lead to fewer settlements (Akcinaroglu 2012). Stronger levels of alliance also result in more rebel victories (Akcinaroglu 2012). The next pair of relationships are with rebel and government leaders between their audience and opponents which affects the outcomes. Leaders have incentives to avoid post-conflict punishment for their involvement in the war (Prorok 2016). These incentives cause leaders to fight for longer and avoid settlements. The likelihood of a one-sided victory versus a settlement is then determined by the leader's stake in the war and how much responsibility they bear for its cause (Prorok 2016).

A final consideration for differing civil war outcomes is distinctions made between conflicts that have ethnic ties against those that do not. If a rebel group has trans-border ethnic ties, government defeat is more likely (Gurses 2015). Additionally, ethnic groups are more likely to reach a settlement with the government (Gurses 2015).

Democratization

The conversation on determinants and differences in civil wars allows us to theorize on post-civil war democratization. Firstly, the main way democracy has been considered across literature is through the Polity score which ranges from -10, 10 and requires a 6 for a democracy (Samanis 2000, Gurses and Mason 2008, Wantchekon and Jensen 2011). The question has then been considered in several ways, with differing explanatory factors and measures for variables (Joshi 2010, Wantchekon, Fortna and Huang 2012, Hippler 2008). There is reason to expect that various factors that have not been directly addressed in extant research explain the diversity of results.

For example, Wantchekon and Neeman 2011 suggest that post-conflict outcomes are the result of a two-stage process. The first stage of the game is played by either the outright winner or joint factions from a settlement. They outline their choices as either deciding to form a government through an external arbitrator, by the people, or a return to the status quo. Through this model, they argue that democratization will occur more when the citizens are up to forming the government as citizens will prefer democracies. While helpful as a baseline, Watchekon and Neeman 2011 do not test this empirically nor do they provide arguments on how stable and long-lasting this democracy will last.

A leader's fear of punishment also contributes to this discussion. Civil war states are contentious with many power imbalances, when power imbalances are more stable and leaders have less fear for punishment and safety, democratization prospects increase (Joshi 2010). Conversely, we can explore the effect that third-party involvement has by using civil war cases from Bosnia, Kosovo, Afghanistan, and Iraq. It is show that there are a set of preconditions necessary for external involvement to result in a democracy which include an establish and organized social base as well as aligning policies between the country and the intervening power (Hippler 2008).

Another consideration is what specific steps need to be taken after a war to achieve democratization. Ruling elites in a post war society need to both increase the costs of violent conflict and decrease the cost of electoral competition (Bermeo 2003). In other words, society needs to make sure that more conflict is discouraged while electoral competition and democratic institutions become desirable. A review of the literature shows two recommendations for a country's civilians to take control of the military and to avoid more conflict. First you must work to remove parts of the military that were most responsible for the conflict in the first place.

Secondly, it is necessary to make the rest of the military loyal to the new regime. It is shown that if these goals are achieved it can successfully reduce more conflict (Bermeo 2003).

When considering how to lower the costs of democracy, the first problem that occurs are that elections have been shown to exacerbate conflicts and trigger breakdowns for democracies (Bermeo 2003). The first step is between political elites who must create pacts between each other that clearly define the rules of governance. Literature also proposes that some countries use federalism as a path towards democratization. Lastly, it is necessary for there to be at least two robust political parties (Bermeo 2003).

Apart from this, the literature gets particularly contradictory. Findings across effects of the outcomes of war, presence of peacekeepers, and the severity all differ (Sambanis 2000, Doyle and Sambanis 2006, Fortna 2008, Gurses and Mason 2008, Huang 2008, Wantchekon and Jensen 2011). Similarly, there is no consensus on whether economic development has no effect or a negative one (Sambanis 2000, Gurses and Mason 2008, Wantchekon and Jensen 2011, Fortna 2008, Huang 2008).

Fortna and Huang 2012 attempt to summarize much of the existing literature and consider the short, medium, and long-term levels of democratization after a civil war. They find contradictory evidence to previous studies that suggests the outcome of a war do not affect democratization in any of the periods. They also find that it is economic development is the biggest explanatory factor.

Methodology and Measurement Problems

Perhaps Fortna's biggest contribution is the conversation on why this topic is so puzzling with so many different results. They determine that inconsistent and flawed measurements across democracy, length after the war, and definition of civil conflict are what lead to this happening.

The first problem begins with democracy measurements with most studies using polity (Samanis 2000, Gurses and Mason 2008, Wantchekon and Jensen 2011). Fortna and Huang 2012 identify the shortcomings of this as Polity uses political instability and violence in its measure of democracy which could make conclusions about this relationship being tautological.

The time period after a civil war to measure democracy is also disagreed upon. If we use too short of a period we might capture a short-term democracy that failed immediately, whereas if we use too long of a term we might miss a legit democracy that occurred but was then brought down. Fortna and Huang 2012 attempt to answer this by using both short and long-term measure but still suffers from some of the same problems.

The last reason for inconsistent research is the measure of a civil war or conflict. This is mostly due to inconsistent measures in datasets. Correlates of War uses 1000 battle deaths in a given year whereas PRIO Armed Conflict uses just 25. We have already explored how the importance that the severity of a war can have on democratization prospects. The use of different measures will result in different conclusions

Despite these findings from Fortna and Huang 2012, it is still necessary to readdress this question. Firstly, an entirely different, more sophisticated measure of democracy should be used. Secondly, an effort should be made to explore the entire democratic trajectory a country experiences rather than just looking at single periods of time. These improvements can help to expand on their research and potentially corroborate their results.

Chapter 3

Theoretical Approach

Literature has questioned why some countries democratize after a civil war while others do not, providing us with disagreeing results. It has explored three main variables that have contradictory effects: type, severity, and outcome of the war. This prompts the need to review these concepts again along with their theoretical connection to post-war democratization. To first define our key terms, there is no one agreed-upon definition of democracy yet most feature the same core principles. Varieties of Democracy, an independent research institute, uses the following, “the electoral principle of democracy seeks to embody the core value of making rulers responsive to citizens, achieved through electoral competition for the electorate’s approval under circumstances when suffrage is extensive; political and civil society organizations can operate freely; elections are clean and not marred by fraud or systematic irregularities; and elections affect the composition of the chief executive of the country” (Coppedge et al. 2021).

Democratization then refers to the transition period where a state begins to adopt these systems until they are a full democracy. Civil war is a war between citizens of the same country, most typically a rebel group fighting against the government's army. This section will be devoted to exploring these concepts and proposing hypotheses for my research.

Civil War Severity

A civil war's severity is how long and how deadly the war is which has been shown to have a large impact on long-term peace (Fortna and Huang 2012). Across conflicts, there is a significant scale in terms of a war’s casualties, which are the total number of battlefield deaths. While there are different measures for what is considered a conflict, the smallest wars have around 1000 casualties while large-scale wars can easily reach hundreds of thousands. This same principle is

true with the length of the war. Some wars last under a year while others last 5-10. These changes in severity will have a large impact on democratization. More severe wars will likely lead to poorer relations between the government, rebel groups, and citizens.

Between the government and rebel groups, cooperation is required in cases of a stalemate or peace treaty. However, intense fighting over many years with high casualties will lead to heightened hostility between these groups. This could lead to both groups refusing to surrender and agreeing to work with each other toward peace. It may also mean that formal war generals will seek out conflict again even after the war is over. Stable peace is a required prerequisite for democratization and will not occur if there is ongoing conflict (Bermeo 2003).

Distrust and poor relations between a country's government and citizens could also occur in many ways. Civil wars have spillover effects on citizens through the destruction of the area they live in, worse economic conditions, deaths of family members who are soldiers, and civilian casualties. These effects become greater the more severe a war is. If a government defeats a rebel group and the old leadership remains, citizens will put the blame for these harmful effects on them. If a rebel group is victorious they will put senior leaders from the rebellion in the new government and the same result will occur. This has the possibility to diminish citizen's political participation. Participation is largely driven by the "link" that citizens feel with their country as well as their affiliation toward political parties and agencies of voter registration (Bratton 1999). If citizens do not hold trust in their government then it will be difficult for them to build this link or affiliation. Active political participation which supports free elections is another generally agreed upon requirement for democracy.

Both length and number of battlefield casualties will likely hurt democratization prospects. The severity of a war has the potential to break down relations between both the

government and rebel groups and the government and its citizens. These arguments bring us to the first two hypotheses.

H1: Longer civil wars will decrease the likelihood of democratization in a state.

H2: Civil wars with more casualties will decrease the likelihood of democratization in a state.

Civil War Types

Previous literature helped differentiate types of civil wars in several ways. This included motivations for wars breaking out, whether wars were split down identity or religious lines, and the type of conflict that occurred (Sambansis 2001, Balcells and Kalyvas 2014). Across these different types, a clear divide exists between wars fought over central control of the government and those that are not. These first types of wars are those where the government and its army fight a rebel group to take total control of the country and lead its government. Opposed to this there are all other wars. These could include different ethnic groups fighting, communities battling to control natural resources, and rebels attempting to separate from the country and form a new one.

The implications these second types wars have on democratization vary. Literature finds that in these, there is not typically a formal rebel army (Sambansis 2001). Without a formal army, they are likely to be far more disorganized, and less overall fighting over a shorter period will occur. Building off our previous arguments, a less severe war will be better for overall democratization. However, if a war is unrelated to a government's authority and its regime type then there is no incentive for that government to democratize after the war is over. This shows that democratization after these wars likely depends on other factors such as its severity and what outcome occurred.

Wars fought over central control of the government, however, are damaging in other ways. While community and resource based wars are more localized in their own area, these wars will be fought nationally throughout the country as groups attempt to seize land from each other. This results in more widespread destruction throughout a country's land and infrastructure. This damage could have serious effects on agriculture, urban buildings, roads, power grids, and water systems. Additionally, a country that must defend itself will spend a large amount of money on its troops, weapons, and equipment to do so. For most countries, the only way they can finance this operation is through borrowing money and taking on debt. This debt will grow even larger when it comes time to repair their damaged infrastructure.

Apart from economic issues, the government may face significant challenges to its legitimacy. This could occur in all outcomes of rebel victory, government victory, or a peace treaty. If the old government wins and remains there will still be questions of how their authority was ever allowed to be challenged. On the international stage, this results in less trade and foreign direct investment (Martin, et al 2008). If the rebels win and there is a new government, these international legitimacy concerns will increase even more. Countries may not want to deal with a new government with an unreliable track record.

These problems are extremely challenging for democratization. It is difficult for a country to support democracy if they are facing a financial crisis. Citizens experiencing poverty will be less supportive of the government, crime rates will increase as more of the population get desperate, and corruption may take place as a way for police and officials to make more money. In this case, it is unlikely that a new or old government is able to create the institutions necessary for democratization.

Overall, the barriers faced by a country who experience a war for central control of the government are likely to great to overcome. They will be faced with the tasks of rebuilding infrastructure, fixing the economy, and restoring trust throughout the country before democratization may occur. This presents the next hypothesis.

H3: Civil wars fought for central control of the government will decrease the likelihood of democratization in a state.

Civil War Outcome

The primary outcomes a war can take are an outright victory by either the government or rebel group and a signed peace treaty. In government victories, we can consider both cases where a government is able to defeat rebels in a short amount of time and when they are seriously challenged and must fight a long war. If a government defeats rebels with no real challenge then the regime's status does not change nor is there any incentive for the current government to begin to shift toward democracy. In reality, there may be even fewer freedoms than before as a country will attempt to crack down on and punish those involved with the rebellion. Outlets such as the free press and social media which help organize rebellion movements will face increased oppression as the government will want to ensure that such uprisings cannot happen again. As such, there is little opportunity for a country to democratize in the immediate wake of the war. Problems also exist in instances where a government just barely outlasts a rebel group. Here, we can once again build off previous theoretic arguments regarding a war's severity and type. Even-matched fighting between rebels and the government will cause fighting to go on longer with more deaths on both sides. Additionally, they will face problems after the war with their international legitimacy and economy. With these problems, it will be difficult for proper democratization to occur

An outright victory by the rebel group still faces many of the key problems discussed above. This includes a damaged economy, weak infrastructure, and being viewed as an illegitimate government by both international. That being said, a rebel victory also guarantees that a whole new government will be instilled within the country. This provides the opportunity for new leadership to move towards democratization in a way that no other outcome properly does. Literature has provided a clear path for new ruling elites to do so which includes making conflict undesirable and making free elections desirable (Bermeo 2003). Despite the significant barriers to overcome, a new government is one of the few guaranteed opportunities that allow for democratization to occur.

Peace treaties have many dimensions that make them both potentially positive and negative for democratization. On one hand, peace treaties provide the same opportunity for a new government to be created. Many peace treaties even have explicit agreements to hold elections in a certain amount of time after the war has ended. However, signed peace treaties do not often do a good job of fully settling conflicts and leave groups with unresolved hostility. If old parts of the government remain in the new government this is likely to be even worse. A peace treaty outcome alone is not enough to determine if it is positive for democratization. It will be highly affected by the severity of the war and whether there was any sort of international third-party mediation in its creation. A more severe war creates worse tensions between new groups in the government whereas a third-party mediator could help create provisions in the treaty that prevents fighting from occurring again.

The theory here shows that wars with different victors could trigger very different results in terms of democratization. A rebel victory guarantees that a new regime will be put in place which provides the best opportunity for democratization. Government victories however,

guarantee that there will not be a new regime formed and will likely result in harsh sanctions against those who rebelled. These arguments result in our final two hypotheses.

H4: Outcomes where a war is won by the rebel group will increase the likelihood of democratization in a state.

H5: Outcomes where a war is won by the government will decrease the likelihood of democratization in a state.

Wars are highly complicated and arguments for what direction a concept has on democratization can often be made on both sides. For example, many would strongly argue that the problems faced by a rebel group taking over a government are too great for it to overcome and be positive for democracy. Other variables that are difficult or even impossible to capture may also drastically change these arguments. It has been shown that wars directly over power or control over a country are highly dependent on the level of rebel sophistication (Balcells and Kalyvas 2014). So, there is a case to be made that wars over power will not be negative for democratization if rebel sophistication is poor.

We can also pick out specific cases where these arguments do not hold. For example, consider Rwanda's 1990 civil war which featured an outright victory by the ethnic rebels and has not democratized. Additionally, Sierra Leone featured the government outlasting rebels in a long bloody war but is on a path toward democratization. These counterarguments and cases do not necessarily show weaknesses in the theoretical arguments demonstrated but instead show how difficult it can be to isolate for one specific concept when there are so many factors that could influence democratization.

Controls

Some control variables will be required to build a successful model. Firstly, I will include the country's gross domestic product (GDP) which is the total value of all the goods produced and sold in the country as well as their total imports and exports. Both measures will indicate how wealthy and how economically developed a country is. There has been much debate on the casual relationship between wealth and democracy, however it has been shown that the correlation between a countries wealth and their level of democracy is strong (Fortna and Huang 2012).

Secondly, I will control whether or not there was a United Nations peacekeeping operation at any point during or after the war ended as a direct response to the civil war. Peacekeepers are often deployed by the United Nations in an effort to reduce the level of conflict in the area and to negotiate for peace. There is mixed evidence on whether the peacekeepers are successful in democratization, however, as it varies across cases it is important to control (Fortna and Huang 2012).

Chapter 4

Data and Methodology

Considering the hypotheses within my theory section, I will now explain my research design to test them empirically. I first draw data from four sources: Correlates of War, Varieties of Democracy, Quality of Government, and the United Nations website. My dependent variables for democracy come from Varieties of Democracy (V-Dem) (Coppedge et al. 2021). The V-Dem project is housed at the University of Gothenburg, Sweden. It attempts to measure democracy in a more unique way than conventional methods by distinguishing between five principles of democracy: electoral, liberal, participatory, deliberative, and egalitarian. My independent variables are rebel victory, government victory, length of the war in years, casualties, and whether or not the war was over central control. These come from Correlates of War (COW) as well as my control variables imports and exports (Sarkees 2010). The COW datasets are hosted at several universities across the United States. They work to collect and disseminate data across the international relations field and have published data since 1966. My control variable -- GDP -- is drawn from the Quality of Government (QOG) database (Teorell et al. 2023). The QOG institute, which collects the data, was founded at the University of Gothenburg in 2006. They work to study the causes of trustworthy, reliable, impartial, uncorrupted and competent government institutions. My measure of the presence of a peacekeeping operation comes from the United Nations website.

I restricted my analysis of civil wars to be after 1950 so that we are only looking at countries in the modern day. I then rely on the COW standard for measuring a civil war which is at least 1000 battlefield deaths in a 12-month period. COW has recorded conflicts up to 2007. In total, there are 92 total conflicts in my dataset. To explore the level of democratization that a country

experiences I include the 10 years immediately following the end of a war so that my analysis begins with the year after the war ended and my last observation is the tenth year after the war ended. This results in a total of 920 observations, each representing a country after experiencing a conflict in a year. There is no consensus on what period after a war should be used to look at democratization. If the analysis is too short, around five years, we may miss countries that took several years to develop a democracy or see countries that democratized fast but quickly fell back into authoritarianism. If the analysis is too long, 15-20 years, we may see democratization occurring because of something unrelated to the conflict.

My first dependent variable, level of democracy, is measured using the Electoral Democracy Index (polyarchy score) from the Varieties of Democracy dataset. It is measured using five other V-dem indices: the degree that political parties are able form and participate in elections, the degree that elections are free and fair, whether the legislature is voted on by the population, what share of adults can vote, and to what extent citizens can express themselves freely on politics. More information on how these indices are aggregated can be found in the V-dem codebook within the bibliography (Coppedge et al. 2021).

Polyarchy is then aggregated using a weighted average these indices and a five-way multiplicative interaction between them. It is measured continuously from 0-1 with 0 being the least democratic and 1 being the most democratic. However, it is transformed in my data by multiplying it by 100 to have a 0-100 scale. This way the interpretation of the coefficients is more intuitive as they can be viewed as what percent the dependent variable increases when we increase the independent variable by one.

I use another binary dependent variable to measure for increase in democracy. This is done by subtracting the democracy score in a unit of analysis from the democracy score in the year its

associated war ended. It is coded 1 if a country did improve its score or 0 if it did not. The other main measure of democracy that could have been used is Polity. However, using Polity would prove to be problematic as it includes political instability and violence in its measure, which are a key feature of civil war. This could result in casual relationships to be tautological (Fortnua and Huang 2012).

My first independent variable, war for central control, is located within the COW war type variable. This is measured on three levels for inter-communal war, war over local issues, or war over central control. Central control is turned into a dummy variable from this measured 1 for it was a war over central control and 0 otherwise. Similarly, government victory and rebel victory come from the war outcome variable which is measured on seven levels for government victory, rebel victory, transfer to different type of war, stalemate, compromise, if the war is currently ongoing, and if the fighting continues under a war level. Government victory and rebel victory are turned into dummy variables coded as 1 if they were an outcome of this type and 0 otherwise. For my last two independent variables, length is the length, in years, from the start of the war till the end. Casualties is the total number of battlefield deaths experienced by both sides during the fighting.

I have four control variables; the first of which is whether there was a peacekeeping operation at any point during or after the conflict. This is hand-coded by using the United Nations' complete list of peacekeeping operations on their website. It is coded 1 if there was an operation at any point as a direct result of the conflict and 0 otherwise. My next variable is what region the country that experienced the war is in. My last three variables are GDP, exports, and imports are measured in millions of US dollars by QOG.

Statistic	N	Mean	St. Dev.	Min	Max
Casualties	570	17,920.07	26,257.91	1,000	139,500
Length	920	6.01	6.29	0	26
GDP	777	2,083.53	2,562.92	95.59	19,063.69
Imports	864	14,298.28	48,105.89	4.9	490,413.3
Exports	865	14,941.41	51,654	2.109	527,266.4

Table 1: continuous variable statistics

Statistic	N	Mean in Year 1	Mean in Year 10
Democracy Score	92	25.7	33.3

Table 2: democratization variable statistics

These statistics demonstrate some interesting characteristics about this data. Table 2 shows the mean democracy score in the first year after the war and in the tenth year after the war. We can see that on average countries are improving by about eight democracy points over the ten-year span after a conflict. These means are shown to be significantly different below the 0.05 threshold. Table 1 demonstrates an issue of missing data in the Casualties, GDP, imports, and exports variables. Some level of missing data is expected, however, the Casualties variable is only 62% complete which could be a large issue as demonstrated in the below tables.

Statistic	% of positive outcomes without missing data	% of positive outcomes with missing data
Increase in Democracy	61.52	57.72
Government Victory	52.17	49.12
Rebel Victory	19.57	26.67
War for Central Control	61.96	61.4
Peacekeeping Operation	26.09	17.54

Table 3: binary variable distribution with and without missing data

Table 3 shows the distribution of the binary variables with the complete dataset and their distribution when the missing rows from the casualties variable are removed. It is revealed here that the distribution of positive and negative outcomes changes in the democracy, government

victory, rebel victory, and peacekeeping operation variables because of missing data. As a result, we can assume that the missing data is not random and will introduce bias into a model and cause it to over represent and under represent the importance of these variables. In addition to this, models run on less data are more susceptible to random noise and may cause over fitting. Table 3 also shows that some of the variables are heavily distributed to either a 0 or 1. As these are binary variables this could result in some issues as there may not be enough data of certain outcomes for our model to infer a relationship.

To perform this analysis, I use both an ordinary least squares (OLS) linear regression and a multivariate logistic regression. OLS regression is used for my first model where my dependent variable is democracy score. OLS regression is appropriate when the dependent variable is of a continuous type. It measures the change in the dependent variable when there is a one unit change in the independent variable. My next model uses logistic regression and uses the binary variable, change in democratization as the dependent variable. Logistic regression is necessary for use when the dependent variable is binary. It measures the probability of the dependent variable occurring given a dataset of independent variables. I chose to employ two different models to capture the different components of my question. The OLS model will show which variables are associated with higher levels of democracy. The logit model will be used to show if countries are experiencing a democratic trajectory by seeing if their democracy scores are improving from the end of the war.

I will also be controlling for fixed time and state effects. Fixed effects are necessary to control for in panel data where there are multiple observations for countries across different time periods. It is done by including N-1 dummy variables for each country and year in my analysis. Despite being general practice, controlling for fixed effects could potentially cause overfitting in

my model. This is because the inclusion of many too many predictors in a model may cause it to be overly sensitive to noise in the data.

Chapter 5

Results

Tables 3 and 4 show the results of the OLS and logit regression models. Due to the large amount of missing data from the casualties variable, I have excluded it from both models.

	<i>Dependent variable:</i>
	Democracy scores
length	-0.451 ^{***} (0.103)
government victory	6.779 [*] (3.897)
rebel victory	-0.229 (4.186)
compromise	5.903 (4.771)
stalemate	4.986 (4.825)
war for central control	9.693 ^{***} (1.773)
GDP	0.00005 (0.001)
peacekeepers	-1.365 (2.168)
exports	0.0001 [*] (0.00005)
imports	-0.00004 (0.00004)
Observations	776
R ²	0.956
Adjusted R ²	0.948

Note: *p<0.1; **p<0.05; ***p<0.01

Table 4: OLS regression results

	<i>Dependent variable:</i>
	Change in democracy
length	-0.254*** (0.056)
government victory	-3.266 (3.031)
rebel victory	-0.588 (2.995)
compromise	4.214 (3.709)
stalemate	-1.698 (3.084)
war for central control	9.071*** (1.548)
GDP	0.001 (0.0004)
peacekeepers	-0.093 (0.952)
exports	-0.0001*** (0.00003)
imports	0.00004** (0.00002)
Observations	776
Akaike Inf. Crit.	605.948
<i>Note:</i>	* p<0.1; ** p<0.05; *** p<0.01

Table 5: logit regression results

Beginning with the OLS model, just two of the independent variables are statistically significant below the 0.05 threshold: length and war for central control. Length shows a negative relationship while war for central control, however, shows a positive relationship with democratization which does not confirm our hypothesis that these would be bad for democracies. Government victory is also significant, however, only below the 0.1 threshold. The logit model also shows length and war for central control as being significant below the 0.05 threshold. It also indicates the same direction with length having a negative relationship with change in democracy and war for central control having a positive one. Figures 1 and 2 demonstrates these findings by showing the predicted probability that a country were to increase in democracy based on these variables when all other variables are held at mean values.

In addition to the significance and direction of the relationships it is useful to look at the magnitude of these effects. While length shows a negative relationship in both models it has a small coefficient of -0.451 in the OLS regression. This shows that despite being statistically significant, length is not a large factor in determining democratization as a one year increase in length only changes the democracy scores by 0.45. On the other hand, the variable for war for central control shows that if it is equal to 1 it increases the democracy by 9.693 points which is far more substantial. Using the logit model, we can look at Table 6 which shows the average marginal effects for each variable. It demonstrates the change in probability of increase in democracy equaling 1 based on a one unit increase in the independent variable. For length, it demonstrates that a one year increase decreases the probability of there being an improvement in democracy by 0.0189. A war for central control is shown to have the strongest effect as it increases the probability for a country to improve in democracy by 0.6715.

Statistic	Average Marginal Effect
length	-0.0189*
government victory	-0.2418
rebel victory	-0.0435
compromise	0.312
stalemate	-0.1257
war for central control	0.6715*

* denotes statistical significance below the 0.05 threshold

Table 6: independent variable's marginal effect on increase in democracy's probability being 1

Our ability to speak in detail about the scale of these marginal effects is, however, limited. Figure 1 and 2 show the predicted probability of increase in democracy equaling 0 when all other variables except for the one predictor are held at their mean value. Figure 1 shows that as the length of a war increases, the error surrounding the predictions grow by an extreme amount. The same is true in figure 2 for when war for central control is equal to 0. This reality does not nullify the findings. It does, however, make it difficult to determine the true degree to which these variables have an effect on the dependent variable.

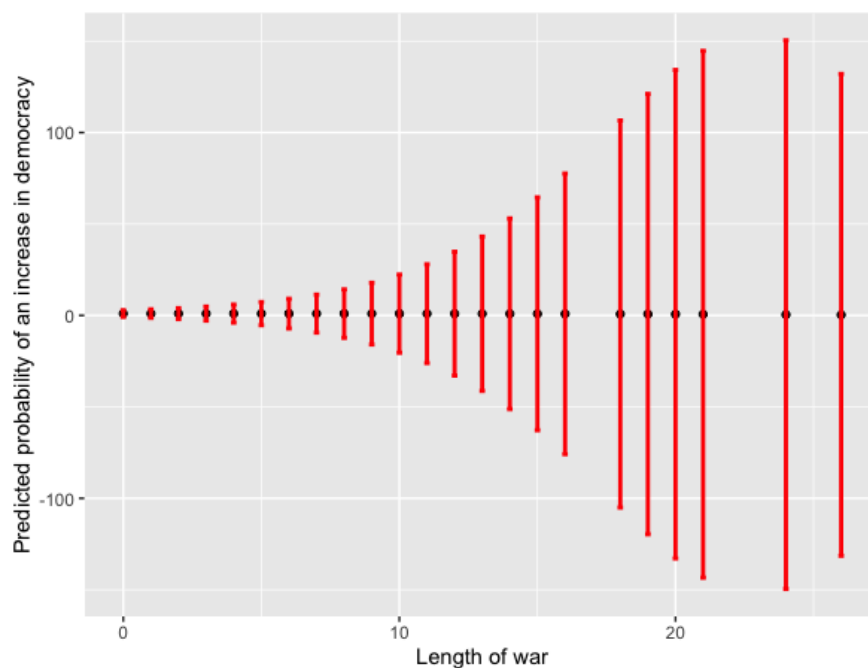


Figure 1: predicted probability of country increasing in democracy based on length of war

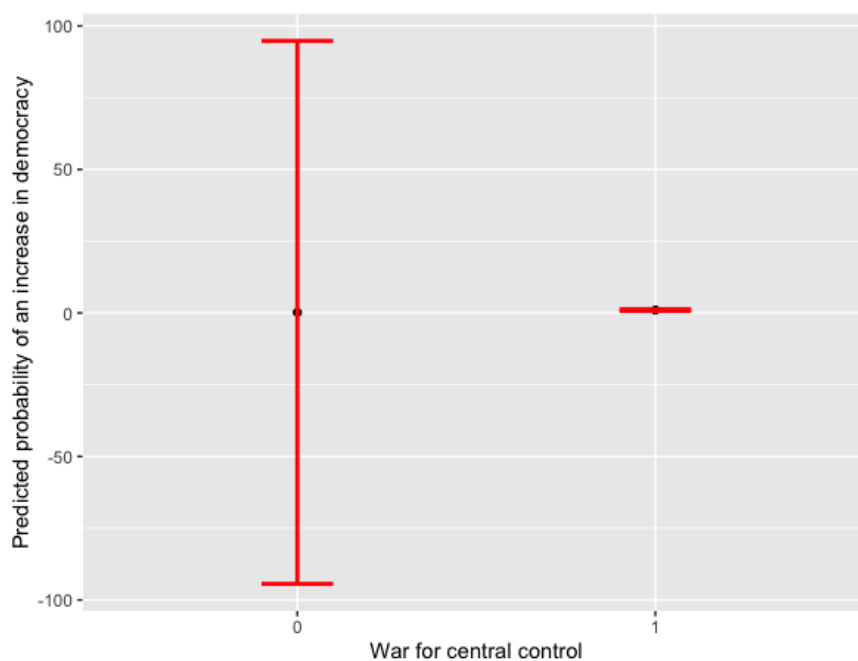


Figure 2: predicted probability of a country increasing in democracy based on war for central control

In terms of my theory, my first hypothesis that both longer and deadlier wars will be negative for democratization has the strongest support. As discussed above longer wars were found to be worse, to some extent, in both models. However, the casualties variable had to be removed meaning no evidence is available to evaluate the second hypothesis. My next hypotheses were that rebel victories would be positive for democratization and the government victories would be negative for democratization which there is no support for. The OLS model shows some level of statistical significance in the government victory variable however in the opposite direction than theorized. Government victory had no significance in the logit model and rebel victory had no significance in either. My last hypothesis was that countries who experience a war over central control would lead to less democratization. The results show that this

hypothesis is unsupported as both models indicate this variable having a positive effect on democratization.

These findings present many theoretical implications. Beginning with severity, I previously argued that the longer and deadlier a war was the less likely opposing forces would be willing to work with each other and that worse relations between the government and citizens would exist. While there is some evidence to support this theory, the minimal effects shown on the length variable could be because it is casualties that have a much stronger impact on democratization. While, longer civil wars are certainly draining on a population, seeing large amounts of deaths, many of whom may be family or friends, is what could cause citizens to be unsupportive of leaders and hurt democratization prospects.

The implication that whoever ultimately wins the war does not have an effect on democratization is a fascinating one. It is possible that even in government victories some level of regime change will come as a result. Government leaders will likely want to avoid conflict again and may institute some democratic institutions to appease the population. On the other hand, a rebel victory does not guarantee that they will create a new democracy. Rebel military leaders may instead seize control over the government and form a new autocracy. The fact that there are many possible directions a country can take in either outcome can explain why it is not a good predictor of if a country will democratize. It does overall suggest, however, that rebels may trigger a civil war with the hopes of creating a new democracy and can still achieve that goal win or lose.

In terms of wars over central control, others have proposed a competing theory against mine. these wars provide the best opportunity to democratize (Fortnua and Huang 2012). They argue that the fact that a government's authority was challenged on a national stage means that

some level of regime change is likely to come which is when democratization may occur. In rebel victories, a brand new government is created, and as argued above, if the government wins then they are still likely to make certain concessions to the rebels and citizens in order to avoid more conflict in the future. My results suggest that there is much stronger evidence to support this theory rather than my own.

The lack of statistical significance for many variables suggests that much of the reason that a country democratizes is due to random differences that exist across conflicts. These could be differences across countries and regions such as population and geography or differences across time. This implies that predicting when democratization may occur is a highly difficult task.

Chapter 6

Conclusion

The objective of this thesis was to answer the question of why some countries democratize after a civil war while others do not. The factors identified and studied were the length of a war, the number of casualties experienced during a war, whether the outcome of the war was either a rebel or government victory, and whether the war was fought over central control of the government. Contrary to my hypotheses, it was shown through regression analysis that a war over central control was associated with a positive relationship with democratization while the length of a war was shown to have a negative relationship. Other factors were shown to have no relationship.

These findings do help clear the contradictory research that currently exists on the relationship between democratization and civil wars. Looking at Fortnua and Huang 2012, who were the last to take on this effort, we corroborate their findings whatever the outcome of the war does not have a highly significant effect on democratization. This finding is important as it was widely believed in previous literature that the outcome of the war was an important factor (Fortnua and Huang 2012). My findings on a war fought over central control and the length of a war, however, disagree with their results and prompt the need to consider this question once again.

There are several limitations to my findings. The first issue, as discussed in previous sections, was missing data. The lack of data with the casualties variable changed the variation in my data causing difficulty in extrapolating any findings from models ran on it. However, removing it from the model could also introduce omitted variable bias seeing as the theory suggests it is an important factor. Measurement error is also a continued concern, particularly

with democratization as no aggregation can perfectly capture this concept. Lastly, there is a potential for overfitting my data due to the inclusion of fixed state and time effects.

With more time and resources, this study could be replicated to include additional dimensions. While I used the Correlates of War project for my conflicts, they use a stricter definition of war which is at least 1000 battlefield deaths in a calendar year. Using a softer measure may yield entirely different results which should be explored. Another change could be the time period after a war we examine for democratization. There is no strong consensus in the literature on what length should be used so exploring different options could yield interesting results. Future research should address these options as well as attempt to resolve the limitations of this study.

Appendix

OLS and Logit Regression with Casualties

	<i>Dependent variable:</i>
	Change in democracy
length	-10.166 (5,815.299)
casualties	0.003 (3.495)
government victory	-1.856 (20,415.800)
rebel victory	90.281 (25,924.590)
compromise	24.378 (43,506.950)
stalemate	87.791 (104,831.700)
war for central control	-33.994 (13,992.020)
GDP	0.001 (0.002)
peacekeepers	-7.008 (27,386.760)
exports	-0.001*** (0.001)
imports	0.001*** (0.0003)
Observations	498
Akaike Inf. Crit.	275.380

Note: * p<0.1; ** p<0.05; *** p<0.01
logit model with casualties variable

<i>Dependent variable:</i>	
Democracy scores	
length	-3.635*** (0.825)
casualties	0.001** (0.001)
government victory	12.245** (5.078)
rebel victory	15.972*** (6.095)
compromise	40.642*** (7.647)
stalemate	16.417 (20.251)
war for central control	13.561*** (4.203)
GDP	0.0001 (0.001)
peacekeepers	4.323 (3.499)
exports	-0.0001** (0.0001)
imports	0.0001** (0.0001)
Observations	498
R ²	0.964
Adjusted R ²	0.954

Note: * p<0.1; ** p<0.05; *** p<0.01

OLS model with casualties variable

Bibliography

- Akcinaroglu, S. (2012). Rebel Interdependencies and Civil War Outcomes. *Journal of Conflict Resolution*, 56(5), 879–903. <https://doi.org/10.1177/0022002712445741>
- Balcells, L., & Kalyvas, S. N. (2014). Does Warfare Matter? Severity, Duration, and Outcomes of Civil Wars. *The Journal of Conflict Resolution*, 58(8), 1390–1418. <http://www.jstor.org/stable/24546209>
- Beardsley, K., Cunningham, D. E., & White, P. B. (2019). Mediation, Peacekeeping, and the Severity of Civil War. *Journal of Conflict Resolution*, 63(7), 1682–1709. <https://doi.org/10.1177/0022002718817092>
- Bermeo, N. (2003). What the democratization literature says—or doesn't say—about postwar democratization. *Global Governance: A Review of Multilateralism and International Organizations*, 9(2), 159–177. <https://doi.org/10.1163/19426720-00902006>
- Bratton, M. (1999). Political Participation in a New Democracy: Institutional Considerations from Zambia. *Comparative Political Studies*, 32(5), 549–588. <https://doi.org/10.1177/0010414099032005002>
- Brinks, D., & Coppedge, M. (2006). Diffusion Is No Illusion: Neighbor Emulation in the Third Wave of Democracy. *Comparative Political Studies*, 39(4), 463–489.
- Collier, P., & Hoeffler, A. (1999). Greed and grievance in Civil War. *Policy Research Working Papers*. <https://doi.org/10.1596/1813-9450-2355>
- Coppedge, Michael, et al (2021). "V-Dem Codebook v11.1" Varieties of Democracy (V-Dem) Project.
- Dyrstad, K. (2012). After ethnic civil war: Ethno-nationalism in the Western Balkans. *Journal of Peace Research*, 49(6), 817–831. <https://doi-org.ezaccess.libraries.psu.edu/10.1177/0022343312439202>
- Fearon, J. D. (2004). Why Do Some Civil Wars Last So Much Longer than Others? *Journal of Peace Research*, 41(3), 275–301. <https://doi.org/10.1177/0022343304043770>
- Fearon, J., & Laitin, D. (2003). Ethnicity, insurgency, and Civil War. *American Political Science Review*, 97(01), 75–90. <https://doi.org/10.1017/s0003055403000534>

- Fortna V. P. (2008) Peacekeeping and Democratization. In *From War to Democracy: Dilemmas of Peacebuilding*, edited by Jarstad Anna K., and Sisk Timothy D.. Cambridge, UK: Cambridge University Press.
- Fortna, V. P., and Huang, R. (2012). Democratization after Civil War: A brush-clearing exercise. *International Studies Quarterly*, 56(4), 801–808.
<https://doi.org/10.1111/j.1468-2478.2012.00730.x>
- Gurses, M. (2015). Transnational Ethnic Kin and Civil War Outcomes. *Political Research Quarterly*, 68(1), 142–153. <http://www.jstor.org/stable/24371978>
- Gurses M., & Mason T. D. (2008) Democracy Out of Anarchy: The Prospects for Post-Civil-War Democracy. *Social Science Quarterly* 89 (2): 315–336.
- Hippler, J. (2008) Democratization after Civil Wars – Key Problems and Experiences, *Democratization*, 15:3, 550-569, DOI: 10.1080/13510340801972270
- Huang, R. (2017). War-Making, Mobilization, and Democratization. In *Wartime origins of democratization: Civil War, Rebel Governance, and political regimes*. essay, Cambridge University Press.
- Huang R. (2008) From War to Democratic Peace? Democratization After Civil War, 1945–1999. Unpublished Manuscript, Department of Political Science, Columbia University.
- Joshi, M. (2010). Post-civil war democratization: Promotion of democracy in post-civil war states, 1946-2005. *Democratization*, 17(5), 826-855.
[doi:https://doi.org/10.1080/13510347.2010.501173](https://doi.org/10.1080/13510347.2010.501173)
- Kalyvas, S. N., 'Civil Wars', in Carles Boix, and Susan C. Stokes (eds), *The Oxford Handbook of Comparative Politics* (2009; online edn, Oxford Academic, 2 Sept. 2009), <https://doi-org.ezaccess.libraries.psu.edu/10.1093/oxfordhb/9780199566020.003.0018>, accessed 12 Oct. 2022.
- Lacina, B. (2006). Explaining the Severity of Civil Wars. *Journal of Conflict Resolution*, 50(2), 276–289. <https://doi-org.ezaccess.libraries.psu.edu/10.1177/0022002705284828>
- Martin, P., Thoenig, M., & Mayer, T. (2008). Civil Wars and International Trade. *Journal of the European Economic Association*, 6(2/3), 541–550. <http://www.jstor.org/stable/40282663>

- Matsumoto, M. (2016). Three strands of explanations on root causes of civil war in low-income and weak states in sub-Saharan africa: Implications for education. *International Journal of Educational Development*, 49, 1–10. <https://doi.org/10.1016/j.ijedudev.2016.01.006>
- Prorok, A. K. (2016). Leader Incentives and Civil War Outcomes. *American Journal of Political Science*, 60(1), 70–84. <http://www.jstor.org/stable/24583051>
- Teorell, Jan, et al. (2023). The Quality of Government Standard Dataset, version Jan23. University of Gothenburg: The Quality of Government Institute, <https://www.gu.se/en/quality-government> doi:10.18157/qogstdjan23
- Sambanis, N. (2001). Do Ethnic and Nonethnic Civil Wars Have the Same Causes?: A Theoretical and Empirical Inquiry (Part 1). *Journal of Conflict Resolution*, 45(3), 259–282. <https://doi.org/10.1177/0022002701045003001>
- Sambanis N. (2000) Partition as a Solution to Ethnic War: An Empirical Critique of the Theoretical Literature. *World Politics* 52 (4): 437–483.
- Sarkees, Meredith Reid and Frank Wayman (2010). *Resort to War: 1816 – 2007*. Washington DC: CQ Press.
- Wantchekon L, & Jensen N. M. (2011) *Democratic Peace Making: Political Development after Civil War*. Unpublished manuscript. Princeton University and Washington University.
- Wantchekon, L., & Neeman, Z. (2002). A Theory of Post-Civil War Democratization. *Journal of Theoretical Politics*, 14(4), 439–464. <https://doi.org/10.1177/095162902774006822>

ACADEMIC VITA
THOMAS G. SCHINDLER

EDUCATION

The Pennsylvania State University | Schreyer Honors College **University Park, PA**
College of the Liberal Arts | Bachelor of Science in Economics *Graduation: May 2023*
College of the Liberal Arts | Bachelor of Science in Social Data Analytics

PROFESSIONAL EXPERIENCE

TD Bank, N.A. **Mount Laurel, NJ**
Summer Analyst *Jun 2022 – Aug 2022*

- Leveraged data and analytics, competitive market research, and credit card banking industry trends to create well educated recommendations for two new credit card products
- Presented in front of key business executives for recommendations on new product launches and improvements to business processes
- Provided analytic support to Agile Pod, conducting regular trend analysis in Excel on defected pod items

LexisNexis Special Services **Washington, DC**
Data Analyst Intern *May 2021 – Aug 2021*

- Served as the lead analyst to build new analytics within SmartSheet to track lengths of project phases that would be utilized and viewed for over 1200 customers
- Constructed dataset within Excel containing 800 NDA contracts showing critical information to be used by 1200 company employees improving business productivity
- Led team to build dataset of 8000 customer contacts used to streamline marketing workflow

LEADERSHIP AND INVOLVEMENT

Marching Blue Band **University Park, PA**
Trumpet Player | Squad Leader *Sep 2019 – Dec 2023*

- Developed and strengthened time management and leadership skills through competitive rehearsal and audition process
- Mentored and taught drill for squad of four individuals through halftime shows culminating in eight full performances
- Instilled spirit and pride into students and fans at basketball, football, and campus events through music and marching
- Performed fully memorized nationally televised shows at Penn State football games with more than 107,000 observers

Alpha Kappa Psi Professional Business Fraternity **University Park, PA**
Active Member | Social Chair *Mar 2021 – Present*

- Led and organized professional development event for an inductee class of 22 and brotherhood of 98 members to enhance professional competency and brotherhood unity
- Strengthened professional, networking, and interviewing skills through mock interviews, resume workshops, professional presentations, and informational sessions with 98 members of the fraternity

SKILLS, HONORS, AND INTERESTS

Programming Languages: Proficient in Python, R, and SQL; Working Knowledge in Java and STATA
Software and Electronics: MySQL, MongoDB, Netbeans, Git, Tidyverse, SmartSheet, Working Knowledge in Excel

Honors: Dean's List (7/7), Paterno Fellow, International Baccalaureate Diploma