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What are the odds of civil war?

Investigating the relationship between quality of government, voter turnout, civil war, and the Democratic peace theory.

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Abstract

The aim of this thesis is to quantitatively investigate the relationship between the quality of government, voter turnout, and civil war. By doing a hypothesis testing analysis through logistic regression. The hypothesis relevant to this thesis reads (1) *There is a negative relationship between the quality of government and the odds of civil war* and (2) *In states, with high quality of government and a high percentage voter turnout there is a lower odd of civil war occurring, compared to only checking for QoG.* Previous research has confirmed an inverted U-curved relationship between democracy and the risk of civil war, what this thesis contributes is instead of democracy as the independent variable, a measurement for quality of government is used. Quality of government covers more areas than what the definition of democracy does. Voter turnout is of interest due to the broad variation within different types of regimes. Firstly, two separate logistic regressions were conducted with the dependent variable occurrence of civil war, the first one with the independent variable quality of government, and secondly the dependent variable and the moderating variable voter turnout. Thereafter, a multiple logistic regression was conducted with the dependent, independent, and moderating variables. The data for the variables were gathered from three main research institutes within their field, namely Quality of Government, Uppsala Conflict Data Program, and Varieties of Democracy. The results of the thesis, show a variance, but support for the two hypotheses of this thesis, which describe that high quality of government decreases the odds of civil war. And when adding voter turnout to the model, after conducting a likelihood ratio test, depicts a better overall model compared to without quality of government and voter turnout. When discussing the results, it is evident that the democratic peace theory, which explains how democracies do not go to war with other democracies, can be applicable to the thesis results. The most recent years have shown numbers describing a decrease, but more intense, civil war, at the same time authoritarian regimes and hybrid regimes increase. These numbers do not correlate with previous research illustrating that hybrid regimes are most likely to develop civil war. Therefore, this thesis result concludes that quality of government cannot be categorized in the same manner as the three main regime types, but the thesis emphasizes that quality of government does explain some of the odds of civil war.

Table of content

1. Introduction

The number of civil wars has decreased in 2021 when compared to earlier years, although the conflicts occurring now are deadlier than before. The violence has resulted in 119 100 deaths in 2021, which is an increase, therefore, are the conflicts more deadly (Shawn et al., 2022). According to Uppsala Conflict Data Program, in 2021 were there 54 state-based conflicts (Shawn et al., 2022), 76 non-state conflicts, and 40 one-sided conflicts (UCDP, n.d). Civil war can result in serious outcomes for the civilian population, including an increase in refugee flow, illegal market trading weapons and drugs, and overall, a state of lawlessness (Blattman & Miguel, 2010). The risk of civil war is greater in states that can be found in between fully democratic regimes and fully authoritarian regimes, which is also referred to as hybrid regimes, and this relationship is described as an inverted U-curve (Bartusevičius & Skaaning, 2018; Lapuente & Rothstein, 2014; Vreeland, 2008; Reynal-Querol, 2005; Hegre et al., 2001; Krain & Myers, 1997). Although the level of democracy is not the only important indicator, quality of government (QoG) also has a vital role (Rothstein, 2009; Rothstein & Teorell, 2008). When a state has a high QoG then both economic and social development is present (Charron & Lapuente, 2010; Holmberg et al., 2009; Rothstein & Teorell, 2008). If this is the case for a state, Rothstein and Teorell (2008) argue that the risk of civil war is lower. Another factor having a vital role in the quality of a state is the election voter turnout, which can occur in all different regime types (Lassen, 2005). High or low voter turnout can vary depending on different factors where one of which is based on what type of state it is, i.e., if the state is small or large (Geys, 2006). Around the world, violence exists before, after, and during elections in different regime types and can affect the turnout negatively, but it relies on what type of violence and when in time it happens (Alachevich & Zejcirovic, 2020; Gallego, 2018; Bekoe & Burchard, 2017). Therefore, the research tells us that the quality of government and voter turnout can play an important role in what affects the risk of civil war. Two components of democracy are well-functioning elections including suffrage and a high QoG (Ezrow & Xezonakis, 2016; Rothstein, 2009).

To be able to discuss this research field, the democratic peace theory is applicable. The theory discusses how democratic states do not go to war with other democratic states (Bartusevičius & Skaaning, 2018; Gat, 2005; Rosato, 2003; Hegre et al., 2001; De Mesquita et al., 1999; Layne, 1994), but it also concludes that if there only would have been democracies then the world would be peaceful (Gat, 2005; Hegre et al., 2001). The reasoning behind this is according to the theory that democracies have institutions that can operate against opponents with non-violence and as well the norms democracies follow (Bartusevičius & Skaaning, 2018). On the other hand, democracies do go to war with non-democracies (De Mesquita et al., 1999), which opens into the research problem this thesis covers, does civil war occur, similarly to war occurring between democracies and non-democracies, when the quality of government is high and likewise the voter turnout? Or does one of the variables affect the likelihood of civil war more? And regardless of the results, discussion, and questioning of the results and the reasonings behind them will be vital. According to Our World in Data, liberal democracies decrease, electoral democracies and closed authoritarian regimes increase, and electoral authoritarian regimes have not changed (OWID, n.d.). When comparing this with Uppsala Conflict Data Programs research stating that civil war has decreased somewhat, the question regarding if democracy or QoG have a vital role in explaining why civil war occurs is of importance to investigate further. This is because the two observations, describing a decrease in civil war and an increase in regimes that do not classify as a liberal democracy, i.e., hybrid regimes, do not correlate with the democratic peace theory or previous research. If not QoG can

explain why some states have civil wars and others do not, then what variables can explain it instead?

In the world today there are different regime types and all of them have various characteristics such as rich, poor, large, small, or other cultural or religious attributes. High quality of government is said to be more common in richer, homogenous states when regarding ethnolinguistics, Christian protestant states, and those who collect a higher tax (La Porta et al., 1999). These attributes cannot solely be classified as a democratic state or not, which highlights the question, is there a possibility for a state with high-quality government to have civil war? The reason behind the risk of civil war is not the same for all hybrid regimes, authoritarian regimes, or democratic regimes. And because of the inverted U-curve related to the relationship between the level of democracy and civil war, to say that only high levels of democracy or quality of government are vital to explain this relationship is misleading. This, therefore, justifies the reasoning behind adding voter turnout as a variable, because of its broad variation in all the different regime types, to the analysis. And voter turnout can be a measurement of how engaged the population is politically. Secondly, the literature suggests more research is needed on this topic, with a focus on institutional factors and their effect (Bartusevičius & Skaaning, 2018; Vreeland, 2008). Furthermore, not enough research has been done on the relationship this thesis aims to study, namely between QoG and civil war (Deglow & Fjelde, 2021).

1.1. Aim and Hypotheses

This thesis's aim is to contribute to the research field by investigating the relationship between QoG, civil war, and voter turnout, and to discuss possible results and their significance. Below are two hypotheses presented describing the relationship between the variables mentioned above.

H1: *There is a negative relationship between the quality of government and the odds of civil war.*

H2: *In states, with high quality of government and a high percentage voter turnout there is a lower odd of civil war occurring, compared to only checking for QoG.*

With the background of the previous research, this thesis could possibly accept the first hypothesis, which is adding to the research field, and add QoG to the strong significance the democratic peace theory discusses regarding democracy and war. The results could also lengthen the previous research's time span since this thesis focuses on the most recent years found in the datasets. To continue, a large scope of previous research is using the independent variable "democracy", instead this thesis will contribute by using "Quality of government". The second hypothesis would, either way if the results suggest an acceptance or a rejection of it, contribute to the field. If the hypothesis is accepted, this would indicate that a high percentage of voter turnout together with the quality of government has an impact on lowering the odds of developing civil war. Furthermore, could this redirect the focus on what causes civil war and how to prevent it? But on the other hand, if the result suggests a rejection of the hypothesis, this will also unfold new information on the question of what can cause civil war. If voter turnout does not have a negative impact on the odds of civil war or is not significant, further research must be done to widen the perspective and add knowledge within this field. In addition, the discussion depending on the results, could also note the importance of fair and free elections and how the votes have been counted. This is because countries such as North Korea might

have a high voter turnout but low quality of government. Also, important to consider is if there is no statistical significance in results then the null hypothesis is instead accepted, which can also be considered a result. This can guide future research in doing analyses with other independent variables to understand why civil war occurs in some states but not in others.

1.2. Delimitations

The following have been excluded from this thesis, databases covering similar data to UCDP, QoG, and V-Dem measuring the occurrence of civil war, quality of government, and voter turnout. The variable for civil war only includes data on the three main definitions of civil war by UCDP from the year 2021. QoG excludes any other areas of importance to the quality of government, aside from corruption, law and order, and bureaucratic quality from the year 2019. Voter turnout includes all registered voters' election turnout from the most recent observation within V-Dem's database, which excludes voting age population turnout. Moreover, this thesis excludes any other way of formulating the hypotheses including other variables, order, and significance to the relationship studied, due to the chosen structure of this thesis. The targeted population is the world's states, as many as the datasets cover, which excludes any state not covered by all three databases. This thesis excludes any other years of interest further back then the latest observed in the databases, Additionally, there are other techniques for conducting the statistical analysis, for example, multiple linear regressions, but this thesis is limited to logistical regression analysis due to the structure of the dependent variable.

1.3. Outline

This thesis is outlined as followed, firstly a chapter covering previous research, the democratic peace theory, and the variables. Secondly, the thesis describes and critically discusses the material and the quantitative method, logistical regression, in chapter three. Thereafter the results are presented with tables and graphs and a discussion analysis before the conclusion ending this thesis.

2. Previous research and theoretical framework

In this chapter, an overview of the previous research and the democratic peace theory will be presented, as well as information about the different variables this thesis aims to investigate. Ending with a concluding section that ties this chapter together, along with a presentation of the causal model including the relationship between the variables.

2.1. Previous research

There is extensive research on the relationship between democracy and the risk of civil war, and many accept the relationship to be an inverted U-curve (Bartusevičius & Skaaning, 2018; Lapuente & Rothstein, 2014; Vreeland, 2008; Reynal-Querol, 2005; Hegre et al., 2001; Krain & Myers, 1997). How come, both democracies and authoritarian regimes have a lower risk of civil war than hybrid regimes? Democratic regimes usually got the institutional means to accommodate potentially violent political complaints with nonviolence (Bartusevičius & Skaaning, 2018). Inclusiveness in the political system is also a vital part of the less likelihood of civil war, and this type of inclusiveness is more common in democracies and especially democracies with multiparty decision-making (Reynal-Querol, 2005). The part democratic norms play in democracies is further one reason why civil war is lower in these regimes (Crisman-Cox, 2022). Authoritarian regimes on the other hand do not accommodate complaints with nonviolence but with violence to restrain them (Bartusevičius & Skaaning, 2018). The reasoning behind why hybrid regimes have a higher risk of civil war is because of the higher risk of violent and hateful elections (Vreeland, 2008), but also because the transitional time hybrid regimes often happen to be in is not stable enough (Hegre et al., 2001). Additionally, these hybrid regimes do not have the quality institutions a democracy usually develops or the means an authoritarian regime obtains to restrain opposition groups with violence (Bartusevičius & Skaaning, 2018). The absent desire to comply within hybrid regimes from the opposition side of view and that the institutions cannot handle opposition groups' violence with nonviolence, evolves, therefore, the hybrid regime also adopts violent means (Vreeland, 2008).

When discussing which regime type is better at resolving civil war, authoritarian regimes have an advantage (Crisman-Cox 2022). Crisman-Cox (2022) suggests that authoritarian regimes have a higher chance of resolving civil wars before or during the conflict, whereas democracies instead end civil wars through political changes supported by the opposition groups leading the conflict. The political changes a democracy is more prone to do when resolving a conflict could lead to political dissatisfaction domestically and result in a negative reputation for democracies globally to resolve internal conflicts. Although when a democracy interferes with the conflict and tries to resolve it, the reputation of its capability to resolve conflicts is higher than authoritarian regimes. Authoritarian regimes and their leaders are not in fear of political dissatisfaction when complying with the opposition groups but instead fear death (Crisman-Cox, 2022).

Elections and their quality of them are an important part of democracies (Bartusevičius & Skaaning, 2018), but whether the voter turnout is higher or lower has different explanations. Ezrow and Xezonakis (2016) illustrate how sometimes when the turnout is larger because of high satisfaction with democracy and other times it is because of dissatisfaction. It is vital to understand that elections occur in all different regime types, but what hybrid and authoritarian regimes lack is everything else related to a quality democracy, such as freedom and inclusiveness (Diamond, 2002). Authoritarian regimes also arrange elections, the two most

common types of elections are with one or multiple parties, although important to mention is that these elections are often not fair (Wahman et al., 2013).

2.2. The democratic peace theory

The democratic peace theory suggests that democratic states hardly ever go to war with each other and is considered to have a high level of statistical significance (Bartusevičius & Skaaning, 2018; Gat, 2005; Rosato, 2003; Hegre et al., 2001; De Mesquita et al., 1999; Layne, 1994). What the theory continuously argues is that if there only existed democracies, there would be a world without war (Gat, 2005; Hegre et al., 2001). The idea of democratic peace is related to, among others, Immanuel Kant's philosophy that the world would be peaceful if only republic states exist since no one would vote for war (Gat, 2005). Further, Rosato (2003) describes the theory to be of causal logic, which can be explained as "A" causes "B" or in other words, democratic states cause peace. Why democracies rarely fight other democracies can be because of their characteristics. Bartusevičius and Skaaning (2018) mention how democracies have institutions to accommodate political opponents with no violence. Furthermore, Rosato (2003) discusses different structures that generate peace according to the theory, including the liability the state obtains to its citizens and the sluggish political mobilization and the flow of information. One vital factor, mentioned by Gat (2005), is that before a state can sustain the democracy needed and exist in the realm of the democratic peace theory, both social and economic development is essential. And over time, elements such as open trade, trade in relation to GNP, and cooperation internationally have been added to explain why democratic states do not go to war with other democracies (Gat, 2005). What has been described above is related to why established democracies do not fight other democracies, and therefore it is important to mention that democracies do fight non-democracies (De Mesquita et al., 1999). There is also evidence that democracies are the ones initiating war with non-democracies and not the other way around. Overall, democracies are often declared "winners" of wars, i.e., losing fewer human lives in battle and not having to surrender first (De Mesquita et al., 1999).

To elaborate, there is criticism toward the theory. There is one thing the theory argues for, which is that democracies handle other democracies with the same respect as they do towards their citizens. This subconscious behaviour towards each other is not considered to be true when interests do not match up, which could impact international politics greatly (Rosato, 2003). The democratic peace theory also somewhat fails to explain why democratic states remain a peaceful relationship with each other, and it is not the characteristics explained above but something else according to Rosato (2003). Gat (2005) also problematizes the theory by discussing how it has progressed through time alongside democratic states from the Western world. As Western democracies have developed more equality and adopted more social rights for minorities and women, as well as greater transparency, many democracies from the so-called global south do not (yet) have the same democratic standard (Gat, 2005).

2.3. Civil War

Civil war tends to begin when a group of civilians have mistrust and objection towards the state and use violence to abolish the government or to separate and thereafter form a new territorial authority (Deglow & Fjelde, 2021; Buhaug, 2006). Since 1946, two-thirds of all civil wars have been related to abolishing or changing the government, whilst the remaining one-third relates to territorial conflicts. Ethnic minorities are pointed out to be the most likely group responsible for creating a violent situation that can lead to civil war (Buhaug, 2006). When counting deaths during civil wars, half of the world's states have experienced civil war where 25 or more have

been killed in one conflict year, and one-third of the states when counting deaths exceeding 100, since the 1960s (Blattman & Miguel, 2010). If a state suffers from civil war, there are many negative consequences following, including an increase in diseases and refugees, illegal trading with goods such as drugs and weapons, furthermore, creating a lawless situation within the society (Blattman & Miguel, 2010).

Some characteristics stand out when discussing which type of state opposes civil wars. When a state has good quality institutions to accommodate opposition groups, violent outbreaks are less likely (Lapuente & Rothstein, 2014; Hendrix, 2010; Buhaug, 2008; Reynal-Querol, 2005). On the contrary, states that have high poverty, and inequality and are ethnically divided have a higher risk of civil war (Buhaug, 2008; Reynal-Querol, 2005). Buhaug (2008) also emphasizes states that are reliant on resources and are larger in size have a greater risk of violent outbreaks. Larger states may have landmass which are difficult to reach because of the terrain which can be an obstacle for the government if separatist groups settle within the area out of reach. On the other hand, smaller state governments have a higher risk of being overthrown, because of their size (Buhaug, 2008). In addition, there are simultaneously characteristics as to why some opposition groups' goals are to abolish the government or to separate from the territorial land. Buhaug (2008) describes aspects such as the group's identity socially and/or ethnically, the scale of the group, and its origin. Likewise, the reasoning behind the opposition differs, such as inequalities relating to the economy or political influence, or discrimination. And in some cases, there is a prominent leader who has personal aspirations to attain (Buhaug, 2008). However, states with well-functioning institutions and high equality, like democracies, are not immune to civil war, Buhaug (2008) suggests that democracies are at risk of conflicts related to territory compared to abolishing the government. An example of this is the Irish Republican Army (IRA) in Ireland (Buhaug, 2008).

Overall, there is a relationship between democracy and civil war, which is explained as an inverted U-curve, as discussed further above. This means that both fully authoritarian and fully democratic states have a lower risk of civil war when compared to hybrid regimes (Deglow & Fjelde, 2021; Vreeland, 2008; Reynal-Querol, 2005; Hegre et al., 2001). But because of this relationship, stating that only democracy can explain why civil war occurs or the outbreak of them is false (Lapuente & Rothstein, 2014; Reynal-Querol, 2005).

Uppsala Conflict Data Program (UCDP) uses three main definitions of civil war, each a little different from the other. "State-based", "Non-state" and "One-sided" violence are the three different definitions. State-based violence is described as follows "A state-based armed conflict is a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in one calendar year". Non-state violence, "The use of armed force between two organised armed groups, neither of which is the government of a state, which results in at least 25 battle-related deaths in a year". And lastly, One-sided violence is described as following, "The deliberate use of armed force by the government of a state or by a formally organised group against civilians which results in at least 25 deaths in a year" (Uppsala University, n.d.a). Important to acknowledge is the deliberate choice of the Uppsala Conflict Data Program to only cover violent conflict with fatalities, which thereby excludes any other events that are non-violent which other databases covers, i.e., Armed Conflict Location and Event Data Project (ACLED) (Eck, 2012). There could also be a need to be observant when examining how UCDP collects data. According to Uppsala University, the data covering fatalities and injuries in conflict is collected through news media reports, non-governmental organizations, and international organizations to name a few. To ensure credibility the

secondary sources collected are tracked back in time to reach who or what was the primary resource and later evaluated and examined to increase reliability (Uppsala University, n.d.b). And according to Eck (2012) is UCDP of higher quality and more suitable when studying factors including geographical aspects.

2.4. Quality of Government

The definition of quality of government (QoG) is the impartiality of those state institutions that operate under governmental rule (Rothstein & Teorell, 2008). When QoG works well there should be a properly functioning relationship between the supply and demand forces, i.e., the leaders and the citizens (Charron & Lapuete, 2010). QoG is measured through the World Banks' rule of law index and its government effectiveness index, together with the corruption index from Transparency International (Holmberg et al., 2009). Democracies, according to Rothstein and Teorell (2008), must have input equality, namely the access of power, and output impartiality, that is the exercise of political power. As mentioned before, corruption is also measured, and a government is corrupt when leaders violate the impartiality for personal winning (Rothstein & Teorell, 2008). Furthermore, it is important to separate QoG and democracy, Rothstein and Teorell (2008) clarify democracy's vitality to QoG but explains further how QoG illustrates the importance of how political power is executed. Some states are explained to have better QoG, for instance, richer, ethnolinguistically homogeneous, protestant countries with higher taxes (La Porta et al., 1999). The economic and social development that follows in a democracy is dependent on high QoG (Charron & Lapuente, 2010; Holmberg et al., 2009). Without a good quality government development is interrupted and is one of the factors to economic and social issues in different states around the world (Rothstein & Teorell, 2008).

According to Rothstein (2009), the quality of government has a more important role when talking about political legitimacy, when compared to the quality of elections. Rothstein (2009) gives examples of how elections have not resulted in political legitimacy from former American president Bush's administration. The administration wanted to create political legitimacy in Iraq through elections, but it was unsuccessful to obtain political legitimacy (Rothstein, 2009). It is crucial to mention that corruption and the quality of government can decrease when a state is moving towards democracy, but progressively increasing its levels of QoG (Charron & Lapuete, 2010). Criticism towards QoG focuses on its measurements and how they are not objective and proposes to measure levels of school persistence, medical care, and law and order, among others instead. QoG also fails to clarify which indicators that are of the most importance (Holmberg et al., 2009). Although, QoG has positive effects in multiple areas, where one is lowering the risk of civil war (Rothstein & Teorell, 2008). Throughout this thesis, QoG will be defined by the Institute of Quality of Governments' definition, which states that a regime with a high-quality government has a "trustworthy, reliable, impartial, uncorrupted, and competent government institution" (Teorell et al., 2023, p.4).

2.5. Voter turnout

When measuring the citizens' engagement in politics, is voter turnout the most frequently used factor (Burden, 2000). Having the right to vote is often related to full democracies but can occur in different types of regimes (Lassen, 2005). Geys (2006) points out the importance to define voter turnout, considering the various definitions. Either voter turnout is defined by the total number of citizens who voted, or through a percentage of the population. Adding to this, it is also important to be clear when describing the population, does it count the entire country's

population, the part of the population within the voting age or the population registered to vote (Geys, 2006)? According to Varieties of Democracy's (V-Dem) definition, voter turnout is defined either by the percentage of the population who are registered to vote or by voting age (Coppedge et al., 2023, p.72). There is in general a relationship between high voter turnout and happiness with the democracy in a country because this fosters a more politically engaged society. On the other hand, can disappointment in democracy results in participation politically (Ezrow & Xezonakis, 2016). Therefore, can voter turnout be a measurement of political participation, which can also be a measurement of how well a state is functioning. As Ezrow and Xezonakis (2016) refer to high voter turnout to be able to say something about how pleased the population is regarding the government. Although, a high voter turnout is often not a measurement of satisfaction when it occurs in authoritarian regimes, but a result of manipulation of the election turnout (Wahman et al., 2013). Furthermore, in authoritarian regimes, the action to vote is often pressured by threats and clientelism which alters the election voter turnout (Martinez I Coma & Morgenbesser, 2020).

What causes someone to vote is reliant on demographic factors, including age and education (Lassen, 2005; Matsusaka & Palda, 1999). Another factor that plays a role is if the citizens feel informed about politics and the election, which can lead to a higher voter turnout (Lassen, 2005). Voter turnout can vary dependent on state-based factors, such as smaller countries and more secure populations tend to have higher voter turnout (Geys, 2006). Campaign spending is also mentioned to positively affect voter turnout (Geys, 2006; Matsusaka & Palda, 1999). Institutional differences can further change voter turnout, including levels of difficulty to register to vote and if the election day is on a weekday or a weekend (Ezrow & Xezonakis, 2016). Geys (2006) continue to clarify a few factors that do not affect voter turnout positively or negatively, namely a homogenous population and political polarization. Although Matsusaka and Palda (1999) present no strong relationship between over thirty different demographic and social factors to why people cast a vote in elections and explain it to be rather random. The authors instead illustrate how other factors may explain the relationship better, which include health, weather, and traffic among others, but important to mention is that these factors are more difficult to measure (Matsusaka & Palda, 1999).

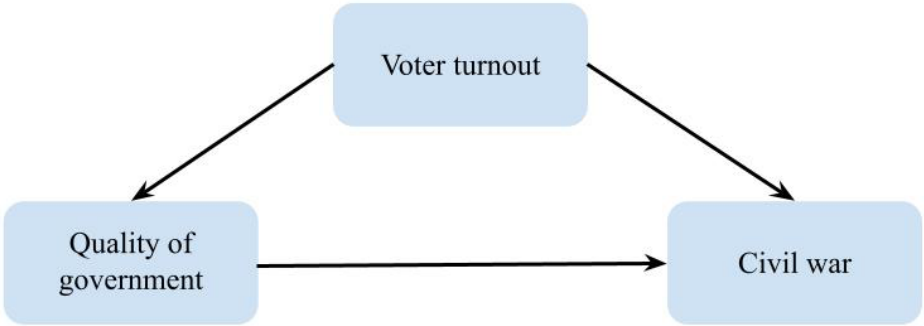
Violence is something that can occur before, during, or after elections (Gallego, 2018; Bekoe & Burchard, 2017). In sub-Saharan Africa, electoral violence has occurred in 41 of 48 states between 1990 and 2014, where 95% of the electoral violence happened before election day. What the violence is sought out to do is harm the election, political candidates, and the voters. Despite this, electoral violence did not affect voter turnout negatively in Africa (Bekoe & Burchard, 2017). When investigating another part of the world, namely Colombia, Gallego (2018) finds that guerrilla violence in connection to elections does affect voter turnout negatively, but on the other hand, paramilitary violence does not affect voter turnout in any way. Although does paramilitary violence weaken political competition and often creates coalitions with political candidates entering the election. Compared to guerrilla violence whose main goal is to disrupt and occurs more often during elections than paramilitary violence (Gallego, 2018). How this violence and war, in general, affect the citizens is mentioned by Alachevich and Zejcirovic (2020), with Bosnia and Herzegovina as an example. When people are exposed to violence this could change their trust and engagement in politics but also socially to the negative. There is shown to be a negative relationship between exposure to violence, such as civil war, and voter turnout, and even after 20 years since the war in Bosnia and Herzegovina ended there is still a decrease in voter turnout (Alachevich & Zejcirovic, 2020).

2.6. How do the variables relate to each other?

How these variables and the theory will help to understand this research problem better will be described further here. Every component this thesis sought to study relates to each other in one way or another. When discussing how the theory, democratic peace theory, is used together with the variables, it can be connected through the democratic characteristics the theory describes (Bartusevičius & Skaaning,2018). QoG is a measure of how well the democracy works, not only the level of democracy, but democracy in itself is still an important factor to QoG (Rothstein & Teorell, 2008), high voter turnout is often a measure of high satisfaction with the democracy (Ezrow & Xezonakis, 2016), and lastly when democracy is high the risk of civil war is lower (Deglow & Fjelde, 2021; Vreeland, 2008; Reynal-Querol, 2005; Hegre et al., 2001). Therefore, you could assume that a state with high-quality democracy, where the citizens participate in elections rarely ends up in civil war in the same way a well-functioning democracy does not enter warfare with other democracies. But, as the previous research tells us, there is an inverted U-curve between democracy and civil war (Deglow & Fjelde, 2021; Vreeland, 2008; Reynal-Querol, 2005; Hegre et al., 2001) and high voter turnout can occur in all types of regimes (Wahman et al., 2013; Lassen, 2005), the relevancy of discussing the results of this thesis with the democratic peace theory is even greater. Krain and Myers (1997) discuss that the democratic peace theory could also be applicable to civil wars, based on their research displaying a similar relationship between democracy and war and as well with civil war.

When analysing the occurrence of civil war with the level of QoG and percentage of voter turnout, this thesis will add another layer to how well the democratic peace theory explains this relationship. Further, the theory only relates to how democracies and non-democracies behave, which excludes the variance of and within both democracies and non-democracies. Therefore, is the relationship this thesis investigates, namely QoG, voter turnout, and civil war, an interesting addition to testing the democratic peace theory. If the result of this thesis is statistically significant, then the democratic peace theory is also applicable to not only democracy but high QoG and voter turnout too. To summarize, the theory and hypotheses are illustrated in Figure 1. below, namely the relationship between the independent variable *QoG* and the dependent variable *Civil war*, with the moderating variable *Voter turnout.* What this model illustrates is that the moderating variable, voter turnout, can intensify, reduce, or in other ways change the relationship between the variables QoG and civil war, thereby changing the entire relationship and the outcome of the analysis.

Figure 1: Causal model of the relationship between QoG, civil war and voter turnout



3. Method and material

In this chapter, the outline of the research design, a description of the data and variables, and the collection of it, as well as a presentation of the method of analysis along with critical considerations will be discussed.

3.1. Research design

This thesis is a cross-sectional study containing a large number of cases, this means that all the cases will be studied at one specific point in time (Levin, 2006). The cases in this study are all the countries available in the different datasets, which in total are 195 but when conducting the multiple logistic regression, the number is down to 132. Besides this, the thesis is also a hypothesis-testing and theory-testing study. The hypotheses mentioned at the beginning of this thesis will be tested against the results to accept or reject them. Meanwhile, the democratic peace theory will be discussed whether it can explain the relationship between civil war and QoG similarly as the theory explains the relationship between democracy and war. To test the hypotheses and the theory a regression analysis will be conducted.

3.2. Method for data collection

To conduct this study through statistical means, three different datasets have been chosen. The datasets in question are Quality of Government, Uppsala Conflict Data Program, and Varieties of Democracy, which all include a large number of variables and data describing the world's states. The aim of this thesis is to study how the relationship between the variables and discuss how the results will be displayed. The most recent numbers of all variables from the datasets have been chosen to be analysed. Below will every dataset and the variables be described further, including definitions and operationalization.

3.2.1. Dependent variable

Uppsala Conflict Data Program (UCDP) is the database used for the dependent variable to study if civil war occurs or not. UCDP was founded by Professor Peter Wallensteen in the 1980s at the Department of Peace and Conflict at Uppsala University (Uppsala University, n.d.c). UCDP provides data on organised violence and civil war globally which is considered to be the main research project and the oldest in this field (Uppsala University, n.d.d). The data is available to download for free at UCDP's website (Uppsala University, n.d.e). Because of difficulties when merging the different datasets together, which are discussed below, all three definitions of civil war have been selected to measure the dependent variable. The definitions are, as introduced in Chapter "2.3. Civil war", "One-sided", "State-based" and "Non-state" violence, which all have separate datasets on the UCDP's website. The dataset of UCDP One-sided Violence version 22.1 covers violence against the citizens by an organized armed group or by the government resulting in 25 or more deaths, between 1989 and 2021 (Pettersson, 2022a). The second dataset is one named "UCDP/PRIO Armed Conflict Dataset version 22.1", which collects civil conflicts based on the same definition as State-based violence. This definition is as follows "A state-based armed conflict is a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in one calendar year" (Pettersson, 2022b). The last dataset is "UCDP Non-state Conflict Dataset version 22.1" with the definition "the use of armed force between two organized armed groups, neither of which

is the government of a state, which results in at least 25 battle-related deaths in a year" (Pettersson, 2022c).

Even though Uppsala Conflict Data Programs definitions have been selected to represent civil war in this thesis, it should be noted that there are other definitions from other institutions. To give examples, PRIO a research institution in Oslo has a dataset covering "Urban Social Disorder" between 1960 and 2014 (PRIO, n.d.). Although, this dataset only covers violence within cities and does not go beyond 2014, which makes it less convenient for this study. Furthermore, there is a non-profit organization named ACLED, which is mentioned above, and they collect data on political violence and updates regularly (ACLED, n.d.), however, excluding civil violence not relating to politics. With this in mind, UCDP has three clear definitions of civil war with various characteristics and allows me to use all datasets and thereby not excluding any important factors, such as if the government is not a part of the violence.

The datasets from UCDP are not available to download to SPSS directly which this thesis will use as an analysing tool, therefore conversion of the datasets has been done from an Excel format to SPSS, although without any problems. Within the dataset are multiple variables describing, for example, the year, location, and type of conflict, the one most interesting in this study is the variable "year". The reasoning behind this choice is that it shows if there has been an observation of civil war in 2021 in a specific country. The aim of this thesis is to study the relationship as close in time as possible, therefore is the year 2021 appropriate. The selection of one specific year indicates a clear delimitation and focus, but this also means missing out on conflicts happening before 2021 and after if data would be available. A study covering more years would subsequently get other results compared to this thesis. Nevertheless, if civil war has occurred in a specific country, this country is thereby coded into a 1, and the other countries into a 0. This variable in SPSS is labelled "civil_war".

3.2.2. Independent variable

The independent variable is Quality of Government and its institutions' data. QoG is one of the world's largest institutes studying the quality of governments and corruption, with roughly 35 researchers working. QoG is an independent institution belonging to the University of Gothenburg (Göteborgs universitet, n.d.a). Quality of Government was founded by two professors, Bo Rothstein, and Sören Holmberg, at the University of Gothenburg in 2004 (Göteborgs universitet, n.d.b). Research on how political institutions of high quality can be created and maintained, and how this affects different areas such as poverty and health, is the focus of their research (Göteborgs universitet, n.d.c). All data is free and available to all and offers search tools for variables (Göteborgs universitet, n.d.d). The dataset used in this thesis is the QoG Standard Dataset version Jan 23, available to download on their website. This dataset is the largest one available and includes circa 2100 variables from 100 sources and the data is from between 2018 to 2020 (Göteborgs universitet, n.d.e).

Because the dataset is free and available for everyone on their website, the process of accessing it was uncomplicated. All QoGs datasets can be downloaded in an SPSS format and the codebook as a pdf file. The Quality of Government dataset includes, as mentioned, around 2100 variables which all represent the measurement of QoG. This has resulted in a selection of one variable contained within the dataset to represent QoG when doing the analysis this thesis is sought out to do. By doing this the results can vary from others who have used QoG as a variable and should be noted. From the 2100 variables, the one chosen is the International Country Risk Guide's indicator for Quality of Government (ICRG QoG) retrieved from the QoG Standard

Dataset Jan 23. ICRG QoG measures corruption, which is described to be a threat to, among others, the economy, efficiency, and stability of the political system (Teorell et al., 2023, p.1299). Law and order are also measured and are high when the legal system is strong and impartial, as well as when the law is respected and there is a low crime rate. Lastly, bureaucratic quality is measured through its absents of swift changes regarding a bureaucracy's policy and administrative work (Teorell et al., 2023, p.1300). Why this variable has been selected is because it measures many of the important factors of QoG, such as corruption (Holmberg et al., 2009), impartiality (Rothstein & Teorell, 2008), stability within the political system (Rothstein, 2009; La Porta et al., 1999) and economic factors (Charron & Lapuente, 2010; Holmberg et al., 2009). Within the institute's dataset, this variable can vary from 0 to 1, where 1 is the highest quality of government (Teorell et al., 2023, p.1299), and in SPSS the variable has six decimals showing where a country falls between 0 and 1. In the separate dataset, which will be used in the analyses, is this variable labelled "icrg_qog".

Despite the explanation above explaining the datasets variables' relevancy, there are multiple datasets that could explain, mainly levels of democracy, and replace QoG for this thesis. To mention a few other datasets covering democracy in one way or another are Freedom House, Polity IV, and V-Dem. Freedom House produces research on democracy, liberty, and political rights (Freedom House, n.d.), Polity IV has a project over regime trends from 1946 to 2013 (Marshall & Gurr, n.d.) and V-Dem measures democracy through many variables and not solely on elections (V-Dem, n.d.a). However, these institutions' data do not cover what QoG manages to do, namely, the quality of governmental institutions, and QoG gives this quality a separate measurement, for instance, the chosen variable to this thesis ICRG QoG (Göteborgs universitet, n.d.a). Additionally, there has been less research on QoG as an independent variable compared to the level of democracy, which makes the selected independent variable more appropriate to use (Deglow & Fjelde, 2021).

3.2.3. Moderating variable

Varieties of Democracy (V-Dem) is an independent institution administered by Professor Staffan I. Lindberg and is located at the University of Gothenburg's Department of Political Science (V-Dem, n.d.b). V-Dem is collecting data that measures democracy in different manners which also include, but not solely, political elections (V-Dem, n.d.a). The moderating variable is voting turnout, which is one of the variables in V-Dem's full plus other dataset and codebook for country and year version 13. Voter turnout has two variables in the dataset, one which is defined through the percentage of the entire population within the voting age who voted, and the other one is the percentage of the registered voters who cast a vote. The latter is the one selected to be a part of this analysis considering the additional clarification the first definition has. When using the voting age as a measure, it does not consider various problems with, for example, the registration process or the part of a population not eligible to vote for various reasons (Coppedge et al., 2023, p.73). Therefore, the percentage of registered voters is a more precise measurement to use. And likewise, QoG, the dataset could easily be downloaded for free of charge in an SPSS format. Within the analysis, this variable is labelled "voter_turnout" in SPSS.

Likewise, regarding the dependent and the independent variable, there are other resources measuring voter turnout, i.e., IDEA and Our World in Data. What V-Dem provides is a dataset that is simple to understand that covers many countries where you have the availability to choose between the variable voting age and registered voters (Coppedge et al., 2023). Additionally, for all databases that provide the official numbers of voter turnout from roughly

all countries, there should not be any noticeable differences between them. Therefore, have V-Dem been selected due to its availability and credibility as an institute. Although, it should be noted that the percentages of the registered populations' voter turnout could be counted differently depending on the country, which could be misleading and vary.

3.2.4. Advantages and Disadvantages

There are advantages to using already existing data, for example, it is less time-consuming, can be of high quality, and as well be free of charge (Bryman, 2016). When discussing the research institutions and their datasets used for this thesis, all of them claim in one way or another that they are the leading institute in their field and therefore have a scientific weight. Also, they claim to have specialist knowledge which increases their credibility, this is also strengthened when all institutions are widely used in previous research. To continue, behind the data collected and their research projects are a team of researchers working together, enhancing the quality of the data. The data itself gathered by these institutes cover many countries, variables, and years. Every institute is as well linked to, but independent from, two large Universities in Sweden, as mentioned before the University of Gothenburg and Uppsala University. Additionally, when the dataset measures what the concepts of civil war, quality of government, and voter turnout imply, then this thesis has high validity. Validity can be explained if the datasets or variables measure the concepts sought out to investigate, then there is high validity (Djurfeldt et al., 2018). As described above, the variables chosen from the datasets have a high correlation with how previous research defined them, civil war as all three definitions from UCDP and therefore covering more cases and eliminating a narrow interpretation. Quality of government is a measurement that stems from its own institution and thereby correlates highly. And lastly, voter turnout can, as mentioned before, be measured in a couple of ways, although the chosen measurement is considered the most suitable.

Although, there are always difficulties and negative aspects to using any type of data. Because it is an institution producing the data of interest, I have therefore needed to comply with what the dataset includes and accordingly chose variables depending on their offer. The institutions work with compiling various and large numbers of variables which can result in navigation problems within the datasets and the codebooks (Bryman, 2016). Problems like this can become an obstacle when working with the datasets and merging them into one separate SPSS file which will be used during the analysis. Furthermore, the variables from the databases have not been transferred correctly to SPSS from their website, which has resulted in manually working with the variables in SPSS to correspond with the numbers provided by the institutes. However, after changing the variable's decimal settings in SPSS it correlates with information provided at the institute’s website. All three datasets look different and have used different methods of arrangement of the variables in SPSS, this has made the process of merging the files more troublesome. After multiple attempts merging three files with collectively over 20 000 cases and 4000 variables, the conclusion drawn was that it will be an easier and quicker work process doing it manually. The manual work has been done with careful precision and reviewed multiple times to eliminate errors. With these problems, there could be a question regarding the reliability of this thesis, namely could another researcher get similar results with the datasets and analysis selected (Djurfeldt et al., 2018)? With this said, all precautions have been taken to follow the institution's datasets and describe along the way what has been done, with what, and how. Therefore, should the results have a high correlation with other studies investigating and using the same variables from the datasets and could be replicated without trouble if the procedure corresponds with this one. This is also feasible due to the transparency when

discussing the variables and datasets. Additionally, the manually constructed dataset used in this thesis is available to reach by contacting the author.

3.3. Method for data analysis

3.3.1. Multiple logistic regression analysis

Multiple logistic regression has been selected for the data analysis in terms of how the dependent variable is constructed. This type of regression has similarities to linear regression but allows the dependent variable to be of a nominal or ordinal level of measurement, which is also referred to as a categorical variable, compared to the linear regressions' continuous dependent variable (Bjerling & Ohlsson, 2010). Because the dependent variable for this thesis is the occurrence of civil war, it has been coded in SPSS into 1 = occurrence of civil war and 0 = no occurrence of civil war. And through logistic regression, can you find out the odds of civil war occurring in relation to the different independent variables, which in this thesis are quality of government and percentage of voter turnout. The odds for the dependent variable are calculated through the result of the dependent variable divided by the opposite, an example is if the result of the dependent variable is 60% then you would divide that number by 40 which will result in 1,5, namely the odds. Then you would take the logarithm of the odd and you will be presented with the log odds. When doing a logistic regression analysis, the odds ratio is of interest because it presents the change in the dependent variable with each unit increase in the independent variables. If the odds ratio is greater than 1, it means that the odds of the dependent variable occurring increases, or you could also describe it as the relationship being positive. On the contrary, if the odds ratio is less than 1, the odds decrease, or the relationship is negative. When conducting a logistic regression, there are two types of so-called "Pseudo R^2", namely the Cox and Snell R^2 and the Nagelkerke R^2. Although it is important to be aware of the values provided by Cox and Snells R^2 and Nagelkerkes R^2 cannot be translated to percentages explaining the variance in the dependent variable explained by the independent variable. The two pseudo R^2 values can vary from 0 to 1. Through statistical analyses, such as the logistic regression analysis, hypotheses are tested. Within this regression is the Wald's Chi^2 test common, and when the test presents a value higher than 3.84 the null hypothesis can be rejected. It is also possible with logistic regression analysis to add multiple independent variables and is therefore suitable to this thesis. Additionally, a likelihood ratio test will illustrate how well a model is statistically when compared to a competing model, often a model with no independent variables (Bjerling & Ohlsson, 2010).

3.3.2. Critical Considerations

However, important to mention is that the results of this regression are somewhat more difficult to interpret than the results from linear regression. The coefficients presented after an analysis only show the change in the logarithmized odds ratio and need to be de-logarithmized and converted to predicted probabilities to be more understandable (Bjerling & Ohlsson, 2010). Further, there could be a problem with multicollinearity, which can be described as when two or more of the independent variables are too similar to separate from one another and therefore affecting the results of the regression and making it more unreliable. You could catch this phenomenon if the standard errors in the results are larger when doing the analysis with the two independent variables compared to analysing them separately. And to further test this, you could look at the correlation between the independent variables, where a high correlation indicates that the regression has problems with multicollinearity (Dougherty, 2011). This is vital to mention because of the independent and moderating variable for this thesis, there could

be a risk of them having a high correlation, i.e., countries with high quality of government might also have a high percentage of the registered population voting, and vice versa regarding countries with low quality of government. Although with this said, there is evidence that strictly authoritarian countries can have a high voter turnout compared to other types of regimes (Wahman et al., 2013), which could lower the risk of the two variables having a high correlation with each other. This could also question the validity of this variable, do the numbers on voter turnout provided by the institute measure what it is supposed to do? Regardless of this, the thesis is interested in investigating and analysing if high voter turnout can have a negative relationship to the odds of civil war, despite how the voter turnout percentage has been collected within the countries available in the dataset.

3.3.3. Execution of analysis

Before performing the logistic regression, the descriptive statistics of the variables were presented to form a better overview and understanding. The descriptive statistics include frequency, a measure for central tendency and variation, as well as the minimum and maximum value for each variable. Before the analysis, a correlation test, named Pearson's correlation test, was conducted between QoG and voter turnout to control whether or not the two variables have a high correlation. Later when conducting the analysis in SPSS, the relationship between "icrg_qog" and "civil_war" was done first to illustrate the relationship and to accept or reject the first hypothesis. To remind of the first hypothesis, H1 reads "There is a negative relationship between the quality of government and the odds of civil war". After running the analysis in SPSS, vital values to understand the relationship were gathered into one table, and its significance, along with the Wald's Chi^2 test and the model evaluation test called the likelihood ratio test, as well as the two pseudo R^2 values available. After this first round of analysis, the moderating variable, "voter_turnout", were analysed together with civil war, and the same procedure as the first round was replicated. This analysis was conducted to further understand the changes from the bivariate regressions and the multivariate regression. No hypotheses have been written to test the relationship between voter turnout and civil war, but on the other hand, rejection or acceptance of the null hypothesis has been discussed. After the two separate bivariate regressions, the multivariate regression was done between the three variables of this thesis to illustrate potential changes in the odds of civil war occurring. Here the second hypothesis is in focus to be accepted or rejected, and H2 reads "In states, with high quality of government and a high percentage voter turnout there is a lower odd of civil war occurring, compared to only checking for QoG". Subsequently, the results of the three analyses are compared and discussed in relation to the hypotheses. Additionally, for each regression conducted a scatter plot was provided to illustrate the relationship between the variables further. The discussion following the regressions was not only focused on the hypotheses but also on a connection to the democratic peace theory, along with a discussion of the interesting values in the tables relating to this thesis research problem.

4. Results

In this chapter, the results will be presented. Firstly, descriptive statistics over the three different variables will be illustrated. Then the results will be presented in the same order as the two hypotheses of this thesis, namely first the relationship between civil war and QoG, and then also a regression between civil war and voter turnout, which relates to the null hypothesis, and lastly the multivariate regression with all three variables. The chapter will end with an in-depth discussion of the results relating back to the hypotheses and the democratic peace theory.

4.1. Descriptive Statistics

To better understand the variables presented in this thesis, Table 1., below illustrates Civil war, QoG, and Voter turnout. The table describes the frequency, the mean, the standard deviation, and the minimum and maximum observation of the three variables. The table shows how the frequency is changing between the variables, the reason behind this is the different datasets used not covering the same number of countries or having missing values for these countries. This indicates that the frequency will be lower when doing the multivariate logistic regression. What the descriptive statistics also portray is the minimum and maximum value of each variable, and civil war is, as explained before, coded into 1 and 0, where 1 means that civil war has occurred. The values for QoG are ranging from 0 to 1, and the highest value measured for quality of government is 0.972 and the lowest 0.055. With voter turnout, the minimum and maximum values can be translated to the percentage of how many registered citizens voted, as the table shows the highest is 99.99%, and the lowest is 11.22%. The mean and the standard deviation are two values that are relevant to each other. If the standard deviation is high the observations or cases are more spread out. For example, the standard deviation for voter turnout is larger than for QoG, this indicates that most cases are farther away from each other and from the mean value in the variable for voter turnout when compared to QoG. Additionally, after conducting Pearson's correlation test, the correlation between QoG and voter turnout is 0.302 which illustrates a correlation but not one of great magnitude. Many variables may correlate, but as long as they are below 0.8 there should not be any problem separating the effect the two variables have on a dependent variable.

Table 1. Descriptive statistics of the variables.

Variable	Frequency	Mean	Standard deviation	Min	Max
Civil war	195	0.21	0.405	0	1
QoG	138	0.54	0.203	0.055	0.972
Voter turnout	169	63.86	18.119	11.22	99.99

Note: Data over civil war is gathered from UCDP (Pettersson, 2022a; Pettersson 2022b; Pettersson, 2022c), QoG (Teorell et al., 2023), and Voter turnout from V-Dem (Coppedge et al., 2023).

4.2. Bivariate logistic regression results

Below will two different bivariate logistic regression analyses be presented, firstly one with the dependent variable, the occurrence of civil war, and the independent variable, QoG. The second analysis contains the same dependent variable and the moderating variable, voter turnout. Each regression result will be demonstrated through a table consisting of important measurements,

values, and tests, as well as one scatter plot graph over the predicted probability of the independent and moderating variable.

From the values illustrated in Table 2., it can be stated that QoG has a negative effect on civil war, in other words, if a country has a higher quality of government the risk of civil war decreases. Why this is the case can be explained through, both the β-coefficient and the Exp(B) coefficient. The β-coefficient for QoG is negative which indicates a negative relationship with civil war, and regarding Exp(B), if the value is lower than 1, which is the case for QoG, this indicated that if QoG increases the probability of civil war decreases. What these values demonstrate is an acceptance of the first hypothesis (H1), i.e., there is a lower odd of civil war occurring when QoG is high. Further, if Wald's Chi^2 test is higher than 3.84 and if there is a statistical significance at the five percent level or a p-value of 0.05 or less, the null hypothesis can be rejected. A low p-value also indicates that the relationship is not explained by coincidence. Table 2. illustrates how QoG and civil war have a statistical significance lower than 0.05, this indicated a rejection of the null hypothesis. Moreover, the likelihood ratio test indicates that the model when including QoG has a better significance compared to when only analysing the dependent variable alone. Continuously, can the two pseudo R^2 values, 0.179 and 0.268 describe how well the independent variable, QoG, can predict the dependent variable, occurrence of civil war. The higher the value the better prediction.

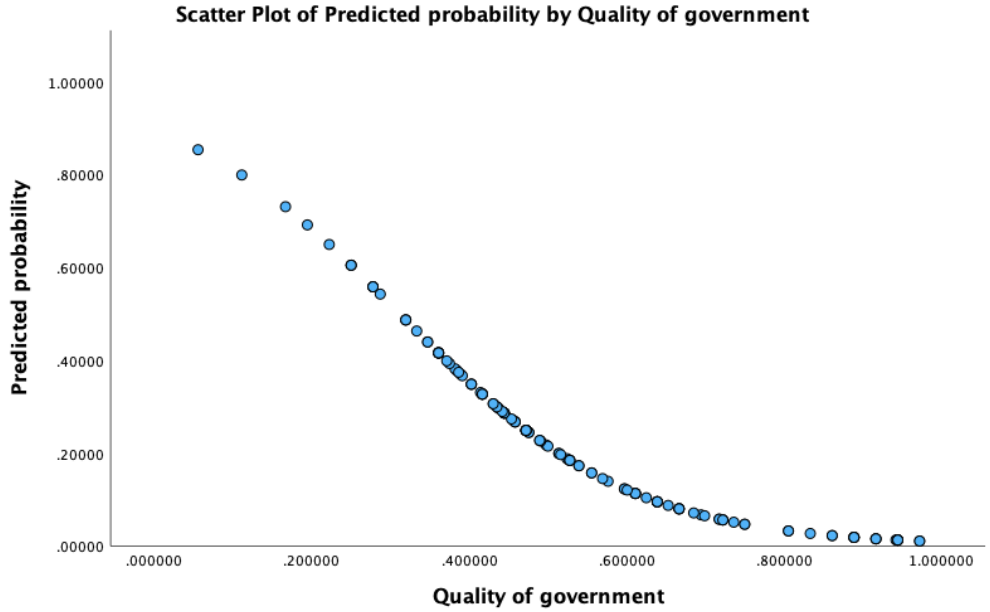
Table 2. Logistic regression analysis of the odds of civil war occurring and QoG.

Coefficient	**β**	**SE**	**Wald's Chi^2**	***df***	***p***	**Exp(B)**
Constant	2.147	0.762	7.934	1	.005	8.561
QoG	-6.885	1.662	17. 158	1	<.001	.001
Likelihood ratio test			27.212	1	<.001	

Note: Data from UCDP (Pettersson, 2022a; Pettersson 2022b; Pettersson, 2022c) and QoG (Teorell et al., 2023). Cox & Snell's R^2 = .179. Nagelkerke's R^2 = .268. n = 138.

To illustrate the relationship even further and more visually, a scatter plot has been provided, which also highlights the acceptance of H1. Figure 2., can be interpreted by examining the Y- and X-axis, if a country is located to the far left or with a low score describing their quality of government, then this county is expected to have between 60% and 80% higher odds of experiencing civil war. And when examining countries on the other side of the graph, the odds of civil war level out the higher quality of government is observed. The figure does also illustrate a more density of countries with a middle score on QoG, which according to the Y axis have around 10% to 40% odds of civil war. Overall, the scatter plot below depicts the negative relationship described by the β-coefficient and the Exp(B) coefficient in the table above. And the first bivariate logistic regression analysis describes significantly, that in states with a higher quality of government score the odds, or in other words, the risk of civil war developing is lower, compared to states with a lower quality of government score.

Figure 2. Scatter plot of predicted probability by QoG.



Note: Data from UCDP (Pettersson, 2022a; Pettersson 2022b; Pettersson, 2022c) and QoG (Teorell et al., 2023).

The second bivariate logistic regression executed is between civil war and voter turnout, the moderating variable, illustrated in Table 3. below. Similarly, to the first regression, there is a negative relationship between high voter turnout and the odds of civil war, which is explained by both the β-coefficient and the Exp(B) coefficient. This is because the β-coefficient is negative, -0.019, and Exp(B) coefficient is lower than one, 0.981. Therefore, when voter turnout increases within a country the odds of civil war decrease. Considering that this thesis does not have a hypothesis explaining the relationship between civil war and voter turnout, no hypothesis other than the null hypothesis can be accepted or rejected. The reason behind doing this regression is to further understand the relationship and the data which will be delivered and presented through the multivariate logistic regression. Although, it is important to acknowledge that the p-value of this regression is not statistically significant. The p-value is presented to be 0.061 which is higher than the 0.05 level of significance, i.e., the relationship illustrated in this regression could also be explained by a coincidence. Also, Wald's Chi^2 test is lower than 3.84, namely 3.522, which indicates, along with no significance that the null hypothesis can be accepted. This means that there is really no relationship between the two variables. The likelihood ratio test describes the model with voter turnout as better, but there is no significance and can therefore not say anything about this relationship. This logistic regression also depicts a lower pseudo R^2, namely 0.021 and 0.032, which indicated that voter turnout as an independent variable can not predict the dependent variable, the occurrence of civil war, well.

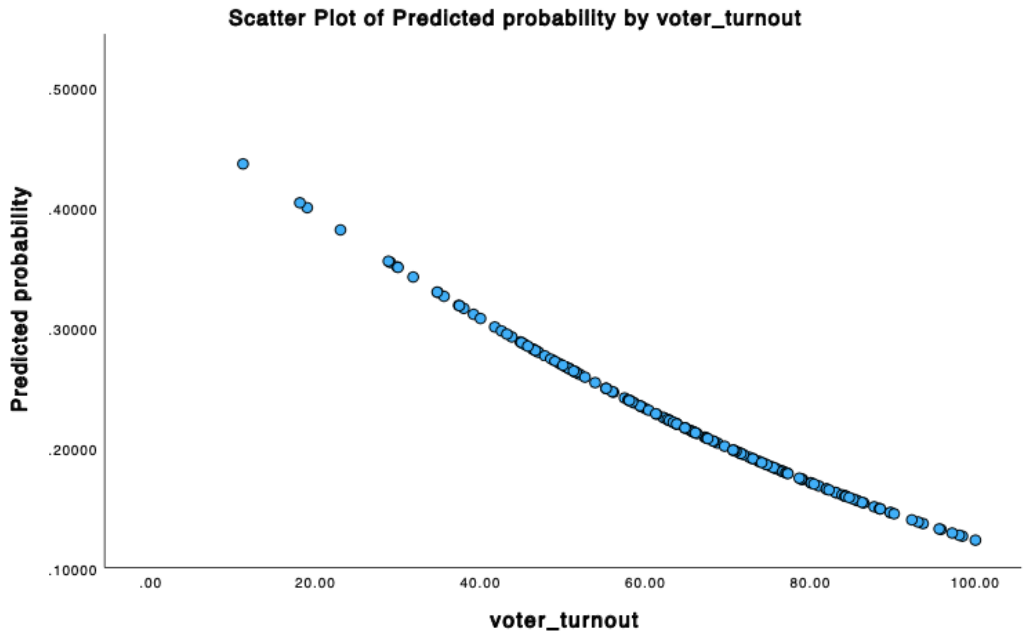
Table 3. Logistic regression analysis of the odds of civil war occurring and voter turnout.

Coefficient	**β**	**SE**	**Wald's Chi²**	***df***	***p***	**Exp(B)**
Constant	-.040	-649	.004	1	.951	.961
Voter turnout	-.019	.010	3.522	1	.061	.981
Likelihood ratio test			3.580	1	.058	

Note: Data from UCDP (Pettersson, 2022a; Pettersson 2022b; Pettersson, 2022c) and V-Dem (Coppedge et al., 2023). Cox & Snell's R^2 = .021. Nagelkerke's R^2 = .032. n = 169.

The scatter plot below, Figure 3., does illustrate the relationship further, but due to no significance, the figure does not have as much importance as the regression analysis between civil war and QoG. Apart from this, does the figure depict a similar relationship as the former one, i.e., negative. If the regression would have been statistically significant, countries with low voter turnout would have around 40% higher odds of civil war, and countries with high voter turnout would have instead 20 % or lower odds of civil war occurring. To summary the second bivariate logistic regression, in states with a larger percentage of voters from the registered population the risk of civil war is lower, although this relationship is not significant.

Figure 3. Scatter plot of predicted probability by voter turnout.



Note: Data from UCDP (Pettersson, 2022a; Pettersson 2022b; Pettersson, 2022c) and V-Dem (Coppedge et al., 2023).

4.3. Multivariate logistic regression results

A multivariate logistic regression analysis was conducted to test whether the second hypothesis can be accepted or rejected. In this regression, the dependent variable, civil war has been analysed with the independent variable, QoG, and the moderating variable, voter turnout. In Table 4. below the relationship between the three variables is presented. First and foremost, the variable for QoG is once again statistically significant, and the β-coefficient and the Exp(B) coefficient illustrate that when QoG increases the odds of civil war decrease. Secondly, Wald's

Chi^2 test indicates, that because the value is higher than 3.84 and significant, the null hypothesis can be rejected, i.e., there is a relationship between the two variables. And similar to the second bivariate regression conducted, Table 4. presents how, if it would be statistically significant, voter turnout, could explain a similar relationship between civil war and QoG. In other words, when the percentage of voter turnout increases, the odds of civil war decrease, due to the values illustrated by the β-coefficient and the Exp(B) coefficient for the variable voter turnout. Consequently, the β-coefficient is -0.002 and the Exp(B) coefficient is 0.998. However, Wald's Chi^2 test for voter turnout is lower than 3.84, which is similar to the previous regression with voter turnout, indicating an acceptance of the null hypothesis. Despite the two different outcomes of QoG and voter turnout in this regression, the likelihood ratio test for this regression illustrates that the model as a whole has a better statistical significance with both QoG and voter turnout compared to without them both. Because the likelihood ratio test is significant, there is some support for the second hypothesis (H2), meaning if a country has both high QoG and high voter turnout the odds of civil war decrease in some manners. Further, the two pseudo R^2 values, 0.161 and 0.241, describe some predictions in the dependent variable explained by both QoG and voter turnout.

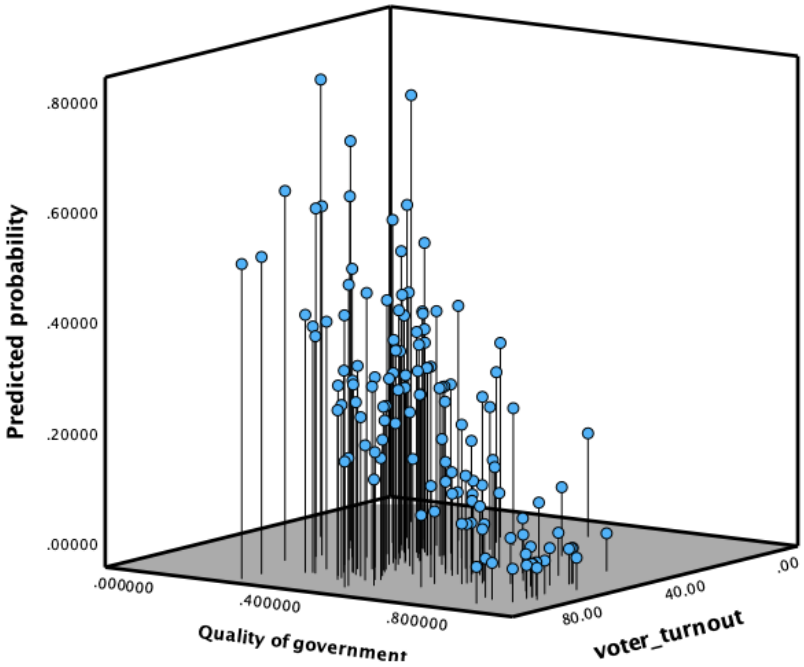
Table 4. Multivariate logistic regression analysis of the odds of civil war occurring, QoG, and voter turnout.

Coefficient	**β**	**SE**	**Wald's Chi^2**	***df***	***p***	**Exp(B)**
Constant	2.101	1.016	4.273	1	.039	8.175
QoG	-6.446	1.697	14.421	1	<.001	.002
Voter turnout	-.002	.013	.026	1	.871	.998
Likelihood ratio test			23.238	2	<.001	

Note: Data from UCDP (Pettersson, 2022a; Pettersson 2022b; Pettersson, 2022c), QoG (Teorell et al., 2023), and V-Dem (Coppedge et al., 2023). Cox & Snell's R^2 = .161. Nagelkerke's R^2 = .241. n = 132.

One better picture describing the support for H2 is in Figure 4., a 3D scatter plot. On the Y-axis is the predicted probability of civil war, and on the X- and Z-axis are QoG and voter turnout. What the figure depicts is, similar to the other scatter plots presented above, a decrease in the odds of civil war when both QoG and voter turnout is higher. By examining the lines, the ones close to the front corner have both high QoG and a high voter turnout, these lines are shorter than the lines closer to the far back corner. The length of the lines determines the odds of civil war occurring, i.e., a shorter line means less than 20% odd of civil war, and the taller the lines mean a higher odd of civil war. By examining the lines, only a few tend to stand out from the general relationship between the three variables, some lines have a high voter turnout, low QoG, and high odds of civil war. Continuously, hardly a couple have high QoG, lower voter turnout, and low odds of civil war. To conclude the multivariate regression, high QoG and high voter turnout lower the risk of civil war, when examining the likelihood ratio test.

Figure 4. 3D scatter plot of predicted probability of civil war by QoG and voter turnout.



Note: Data from UCDP (Pettersson, 2022a; Pettersson 2022b; Pettersson, 2022c), QoG (Teorell et al., 2023), and V-Dem (Coppedge et al., 2023).

4.4. Discussion

To summarize the results, key findings will be discussed first. Through the first logistic regression, the results show how H1 can be accepted, due to the significance presented in Table 2. There is a negative relationship between high quality of government and high odds of civil war. When conducting the second logistic regression, no significance is presented between the odds of civil war and voter turnout, which accepts the null hypothesis. On the other hand, when combining the variable for QoG and voter turnout, the likelihood ratio test describes, firstly a better Wald's Chi^2 value and secondly the significance of the model which enables the results to show some support for H2. As presented above is the support for H2 better depicted in Figure 4., a state with both high quality of government and voter turnout has lower odds of civil war. The acceptance of the first hypothesis of this thesis is contributing to the existing literature stating that a more well-functioning democracy helps to prevent civil war (Deglow & Fjelde, 2021; Vreeland, 2008; Reynal-Querol, 2005; Hegre et al., 2001). Although, the previous literature has focused on different regime types, which has resulted in an inverted U-curved relationship, meaning both democracies and authoritarian regimes have a negative relationship with civil war (Deglow & Fjelde, 2021; Vreeland, 2008; Reynal-Querol, 2005; Hegre et al., 2001). In contrast, this thesis's results, show a continuously negative relationship between the variable QoG, which has differences from the definition of democracy, and the odds of civil war. As previous literature has stated, more research is needed between civil war and QoG compared to the level of democracy, and this thesis, therefore, adds another layer to the research by presenting a significant relationship describing that the odds of civil war decrease when QoG increases.

The support for the second hypothesis, H2, can be shown through the abovementioned likelihood ratio test. The results explain how voter turnout can be an important factor, but solely when analysed together with QoG because there is no significance when only analysing voter turnout and civil war. Why there is no significance within the regression with only voter turnout

and civil war, but the likelihood ratio test has a significance when adding QoG, could be described through the evidence that many authoritarian regimes have high election fraud or manipulation (Wahman et al., 2013; Lassen, 2005). Therefore, the analysis could only be significant when analysing voter turnout together with QoG, due to these two variables being associated with each other in well-functioning democracies, as Figure 4. illustrates. It is important to mention that, as presented in the results, QoG and voter turnout are associated with each other but do not correlate too much with each other and therefore avoid nearly all problems of separating the effects the variables have on the odds of civil war. Furthermore, when comparing the pseudo R^2 from the first logistic regression and the multivariate logistic regression, both Cox and Snell's and Nagelkerke's R^2 have decreased. This implies that when only analysing QoG and the odds of civil war, is QoG better at explaining the prediction of occurrence in civil war than when adding voter turnout to the model. So even if there is some support for H2, the multivariate logistic regression does not explain why civil war occurs better than the first logistic regression.

A causal model, Figure 1., has previously been presented to illustrate the relationship between the three variables, QoG, civil war, and voter turnout. The figure depicts a relationship that can be altered in any way when adding the moderating variable to the relationship between QoG and civil war. As the results in Table 4. above present, there was an alteration of the relationship in the multivariate regression when compared to the first bivariate regression. Thereby, the causal model does correlate with the results, but the alteration was changed to the negative, meaning that QoG can explain the occurrence of civil war better than QoG and voter turnout together. The bivariate logistic regression with only voter turnout does show a similar relationship as QoG and civil war, but it is not significant which is the main difference between the logistic regression executed in this thesis. Although, there could be another variable instead of voter turnout to explain the relationship better, for instance, previous civil wars.

After a discussion relating the results to the two hypotheses interesting to this thesis, the results will now also be discussed in relation to the democratic peace theory and what this tells us. To be reminded, the democratic peace theory suggests that democracies do not fight each other due to norms and behaviours defined by what democracies are (Bartusevičius & Skaaning, 2018; Rosato, 2003). Krain and Myers (1997) state that the theory can also be suitable for explaining the relationship between democracy and civil war, further the results of this thesis go along with this statement. When QoG increases the odds of civil war decreases, and this relationship has a statistical significance. The results of this thesis also suggest that the democratic peace theory is useful not only for democracy but also for the quality of government, which according to Rothstein and Teorell (2008) control for more than only democracy. As discussed previously in this thesis, is there many definitions of democracy, but most of them include election suffrage of some sort. But when analysing the relationship between voter turnout and civil war there is no significance, which could indicate that a narrow definition of democracy, i.e., high voter turnout cannot be linked to the theory, based on the results of this thesis. On the other hand, the multivariate logistic regression analysis fits the theory likewise the first regression analysis. Considering what has been presented, well-functioning democracies or states with a high quality of government should have lower odds of violence affecting their citizens. And if more states got a higher score of QoG the world would be more peaceful, which goes along with what both Gat (2005) and Hegre et al. (2001) explain to be a possible outcome in relation to the democratic peace theory. Thereby, the theory fits the results of this thesis which implies that if states have high QoG, civil war is less likely to occur. The democratic peace theory could therefore also include the variable of QoG and civil war, not exclusively democracy and war between democracies.

A discussion about shortcomings is also vital to highlight. Two out of three logistic regressions did show a statistical significance and are therefore useful, on the other hand, was the analysis between voter turnout and civil war not significant. This can be viewed as a shortcoming of this thesis, due to for example a poor choice of variable or database. With the background of this thesis results something else could better explain the odds of civil war occurring. Although, the regression analysis without significance and the lower pseudo R^2 in the multivariate regression, do illustrate that voter turnout may not have such a big role in explaining why civil war occurs but there is something else to investigate further. Further, it should be mentioned that any outliers within the datasets used have not been eliminated when conducting the regression analysis. The reasoning behind this is to keep as many observations as possible throughout the analysis, despite this there is a recognition that this may alter the results in a negative manner. Nevertheless, the results do present interesting numbers and regressions that are statistically significant, supporting the hypotheses and relating to the democratic peace theory.

5. Conclusions

This thesis aimed to investigate the relationship between civil war, QoG, and voter turnout, and the results will be concluded in a final takeaway with key findings. Quality of government significantly matters when examining the reasoning behind the occurrence of civil war, whereas voter turnout has similar behaviours as QoG it is not statistically significant in this analysis. However, the likelihood ratio test is significant when analysing Qog and voter turnout combined in one model. Even though the pseudo R^2 decreases when adding voter turnout to the model including QoG, the two hypotheses of interest to this thesis can either be accepted (H1) or supported to some extent (H2). The research problem this thesis is based on is, how come civil war has decreased slightly in the past years, but is now deadlier (Shawn et al., 2022), and the regime type most prone to develop civil war has increased, is taking place at the same time (OWID, n.d)? Additionally, previous research has mostly relied on categorizing states into categories including "authoritarian", "hybrid", and "democratic" regimes when analysing the probability of war and civil war (Deglow & Fjelde, 2021; Vreeland, 2008; Reynal-Querol, 2005; Hegre et al., 2001), which is not equal to QoG (Rothstein & Teorell, 2008). Previous research has as well presented an inverted U-curved relationship (Bartusevičius & Skaaning, 2018; Lapuente & Rothstein, 2014; Vreeland, 2008; Reynal-Querol, 2005; Hegre et al., 2001; Krain & Myers, 1997), which this thesis did not find. Therefore, you could conclude that QoG and categorizing states into the three main regime types do not correlate as much as speculated. A further explanation is that a state within the "democratic" regime type could have a lower QoG compared to a state which is categorized as a "hybrid" regime, and therefore explains the results of this thesis when also not dismissing any previous research. On the other hand, can voter turnout still be seen as a form of political engagement, but not significantly explain why civil war occurs. The reason why voter turnout is not significant can be a result of many factors, although one could be traced back to what Matsusaka and Palda (1999) argued, that who turns up to vote is seemingly random and is affected by, to name a few, the person's health, the weather, or the traffic. This can accordingly affect the final election turnout. However, the significant results of this thesis correlate with the democratic peace theory, as discussed above in the previous chapter.

Regarding the relevance of the results to the research field, this thesis has provided more information and efficient research results about the knowledge of why some states develop civil wars when others do not. Continuously, after conducting the analysis, confirmation of the reliability of the study can be done. What was sought out to be studied has been accomplished. Crucial to mention is that this first and foremost refers to the logistical regression analyses conducted with QoG alone and with QoG and voter turnout combined, not regarding the analysis solely with voter turnout. Nevertheless, the logistic regression only including voter turnout and civil war illustrates that voter turnout did not explain this relationship better but has now been tested in this constellation. Despite valid results, more research will be needed to further explain and illustrate the odds of civil war, partly since voter turnout not being significant and a decrease in the pseudo R^2, but also because QoG does not explain the whole variation in civil war alone. Something else can better demonstrate the presence of civil war, and suggestions for future research to answer this question could be to further investigate states that have previous experiences of civil war. Or to analyse other factors such as where the states are located, i.e., in different continents or closeness in time to elections or other major political events. To conclude, this thesis has been able to contribute to the research field with some of the latest data covering the variables, significant results when analysing QoG, and a significant likelihood ratio test.

6. References

ACLED. (n.d.). *About ACLED.* Accessed 2023-04-28 from https://acleddata.com/about-acled/

Alacevich, C., & Zejcirovic, D. (2020). Does violence against civilians depress voter turnout? Evidence from Bosnia and Herzegovina. *Journal of Comparative Economics, 48*(4), 841-865.

Bartusevičius, H., & Skaaning, S. (2018). Revisiting democratic civil peace. *Journal of Peace Research, 55*(5), 625-640.

Bekoe, D., & Burchard, S. (2017). The Contradictions of Pre-election Violence: The Effects of Violence on Voter Turnout in Sub-Saharan Africa. *African Studies Review, 60*(2), 73-92.

Bjerling, J., & Ohlsson, J. (2010). *En Introduktion till Logistisk Regressionsanalys.* Göteborgs universitet.

Blattman, C., & Miguel, E. (2010). Civil War. *Journal of Economic Literature, 48*(1), 3.

Bryman, A. (2016). *Social Research Methods* (fifth ed.). Oxford University Press.

Buhaug, H. (2006). Relative Capability and Rebel Objective in Civil War. *Journal of Peace Research, 43*(6), 691-708.

Burden, B. (2000). Voter Turnout and the National Election Studies. *Political Analysis, 8*(4), 389-398.

Charron, N., & Lapuente, V. (2010). Does democracy produce quality of government? *European Journal of Political Research, 49*(4), 443-470.

Coppedge, M., Gerring, J., Knutsen, C., Lindberg, S., Teorell, J., Altman, D., Bernhard, M., Cornell, A., Fish, S., Gastaldi, L., Gjerlöw, H., Glynn, A., Grahn, S., Hicken, A., Kinzelbach, K., Marquardt, K., McMann, K., Mechkova, V., Neundorf, A., Paxton, P., Pemstein, D., Rydén, O., Von Römer, J., Seim, B., Sigman, R., Skaaning, S.E., Staton, J., Sundström, A., Tzelgov, E., Uberti, L., Wang, Y., Wig, T., & Ziblatt, D. (2023). *V-Dem Codebook v13.* Varieties of Democracy (V-Dem) Project.

Crisman-Cox, C. (2022). Democracy, reputation for resolve, and civil conflict. *Journal of Peace Research, 59*(3), 382-394.

De Mesquita, B., Morrow, J., Siverson, R., & Smith, A. (1999). An Institutional Explanation of the Democratic Peace. *The American Political Science Review, 93*(4), 791-807.

Deglow, A., & Fjelde, H. (2021). The Quality of Government and Civil Conflict. In A. Bågenholm et al. (ed.), *The Oxford Handbooj of The Quality of Government* (p.781-800). Oxford University Press.

Diamond, L. (2002). Elections Without Democracy: Thinking About Hybrid Regimes. *Journal of Democracy, 13*(2), 21-35.

Djurfeldt, G., Larsson, R., & Stjärnhagen, O. (2018). *Statistisk Verktygslåda 1. Samhällsvetenskaplig orsaksanalys med kvantitativa metoder.* Studentlitteratur, Lund.

Dougherty, C. (2016). *Introduction to econometrics* (5. th ed.). Oxford University.

Eck, K. (2012). In data we trust? A comparison of UCDP GED and ACLED conflict events datasets. *Cooperation and Conflict, 47*(1), 124-141.

Ezrow, L., & Xezonakis, G. (2016). Satisfaction with democracy and voter turnout: A temporal perspective. *Party Politics, 2016, Vol. 22, Iss. 1, Pp. 3-.14, 22*(1), 3-14.

Freedom House. (n.d.). *About Us.* Accessed 2023-04-28 from https://freedomhouse.org/about-us

Gallego, J. (2018). Civil conflict and voting behavior. *Conflict Management and Peace Science,35*(6), 601-621.

Gat, A. (2005). The Democratic Peace Theory Reframed: The Impact of Modernity. *World Politics,58*(1), 73-100.

Geys, B. (2006). Explaining voter turnout: A review of aggregate-level research. *Electoral Studies,25*(4), 637-663.

Göteborgs universitet. (n.d.a). *Bakgrund.* Accessed 2023-04-14 from https://www.gu.se/korruption-samhallsstyrning/om-oss/bakgrund

Göteborgs universitet. (n.d.e). *Basic Dataset.* Accessed 2023-04-17 from https://www.gu.se/en/quality-government/qog-data/data-downloads/basic-dataset

Göteborgs universitet. (n.d.b). *Om oss.* Accessed 2023-04-14 from https://www.gu.se/korruption-samhallsstyrning/om-oss

Göteborgs universitet. (n.d.c). *Vår forskning.* Accessed 2023-04-14 from https://www.gu.se/korruption-samhallsstyrning/var-forskning

Göteborgs universitet. (n.d.d). *QoG Data.* Accessed 2023-04-14 from https://www.gu.se/korruption-samhallsstyrning/qog-data

Hegre, H. (2001). Toward a Democratic Civil Peace? Democracy, Political Change, and Civil War, 1816–1992. *The American Political Science Review, 95*(1), 33-48.

Hendrix, C. (2010). Measuring state capacity: Theoretical and empirical implications for the study of civil conflict. *Journal of Peace Research, 47*(3), 273-285.

Holmberg, S., Rothstein, B., & Nasiritousi, N. (2009). Quality of Government: What You Get. *Annual Review of Political Science, 12*(1), 135-161.

Krain, M., & Myers, M. (1997). Democracy and civil war: A note on the democratic peace proposition. *International Interactions, 23*(1), 109-118.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (1999). The quality of government. *Journal of Law, Economics, & Organization, 15*(1), 222-279.

Lapuente, V., & Rothstein, B. (2014). Civil War Spain Versus Swedish Harmony: The Quality of Government Factor. *Comparative Political Studies, 2014, Vol. 47, Iss. 10, Pp. 1416-.1441, 47*(10), 1416-1441.

Lassen, D. (2005). The Effect of Information on Voter Turnout: Evidence from a Natural Experiment. *American Journal of Political Science, 49*(1), 103-118.

Layne, C. (1994). Kant or Cant: The Myth of the Democratic Peace. *International Security, 19*(2), 5-49.

Levin, K. (2006). Study design III: Cross-sectional studies. *Evidence-based Dentistry, 7*(1), 24-25.

Marshall, M., & Gurr, T. (n.d.). *Polity IV Individual Country Regime Trends, 1946-2013.* Accessed 2023-04-28 from https://www.systemicpeace.org/polity/polity4.htm

Martinez i Coma, F., & Morgenbesser, L. (2020). Election turnout in authoritarian regimes. *Electoral Studies, 68*, 102222.

Matsusaka, J., & Palda, F. (1999). Voter Turnout: How Much Can We Explain? *Public Choice,98*(3/4), 431-446.

OWID. (n.d.). *Democracy.* Accessed 2023-04-11 from https://ourworldindata.org/democracy

Pettersson, T. (2022c). UCDP Non-state Conflict Codebook v 22.1, https://ucdp.uu.se/downloads/

Pettersson, T. (2022a). UCDP One-sided Violence Codebook v 22.1, https://ucdp.uu.se/downloads/

Pettersson, T. (2022b). UCDP/PRIO Armed Conflict Dataset Codebook v 22.1, https://ucdp.uu.se/downloads/

PRIO. (n.d.) *Urban Social Disorder (USD) Dataset.* Accessed 2023-04-28 from https://www.prio.org/data/6

Reynal-Querol, M. (2005). Does democracy preempt civil wars? *European Journal of Political Economy, 21*(2), 445-465.

Rosato, S. (2003). The Flawed Logic of Democratic Peace Theory. *The American Political Science Review, 97*(4), 585-602.

Rothstein, B. (2009). Creating Political Legitimacy. *The American Behavioral Scientist (Beverly Hills), 53*(3), 311-330.

Rothstein, B., & Teorell, J. (2008). What Is Quality of Government? A Theory of Impartial Government Institutions. *Governance (Oxford), 21*(2), 165-190.

Shawn, D., Pettersson, T., & Öberg, M. (2022). Organized violence 1989-2021 and drone warfare. *Journal of Peace Research, 59*(4).

Teorell, J., Sundström, A., Holmberg, S., Rothstein, B., Alvarado Pachon, N., Mert Dalli, C., & Meijers, Y. (2023). *The Quality of Government Standard Dataset,* version Jan 23. University of Gothenburg: The Quality of Government Institute, https://www.gu.se/en/quality-government doi:10.18157/qogstdjan23

UCDP. (n.d.). *Number of Conflicts 1975-2021.* Accessed 2023-04-11 from https://ucdp.uu.se/encyclopedia

Uppsala University. (n.d.d). *About UCDP.* Accessed 2023-04-17 from https://www.pcr.uu.se/research/ucdp/about-ucdp/

Uppsala University. (n.d.c). *UCDP Background.* Accessed 2023-04-17 from https://www.pcr.uu.se/research/ucdp/about-ucdp/ucdp-background/

Uppsala University. (n.d.e). *UCDP Data for download.* Accessed 2023-04-17 from https://www.pcr.uu.se/research/ucdp/ucdp-data/

Uppsala University. (n.d.a). *UCDP Definitions.* Accessed 2023-04-17 from https://www.pcr.uu.se/research/ucdp/definitions/#tocjump_08138392981282805_33

Uppsala University. (n.d.b). *UCDP Methodology.* Accessed 2023-05-26 from https://www.pcr.uu.se/research/ucdp/methodology/

V-Dem. (n.d.b). *The V-Dem Institute.* Accessed 2023-04-17 from https://v-dem.net/about/v-dem-institute/

V-Dem. (n.d.a). *The V-Dem Project.* Accessed 2023-04-17 from https://v-dem.net/about/v-dem-project/

Vreeland, J. (2008). The Effect of Political Regime on Civil War: Unpacking Anocracy. *The Journal of Conflict Resolution, 52*(3), 401-425.

Wahman, M., Teorell, J., & Hadenius, A. (2013). Authoritarian regime types revisited: Updated data in comparative perspective. *Contemporary Politics, 19*(1), 19-34.