Synne Constanse Alstad Danielsen

Do ethnic demographic changes trigger civil war?

An empirical analysis, 1960-2013

Master's thesis in Political Science
Supervisor: Indra De Soysa
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Synne Constanse Alstad Danielsen

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Abstrakt

Innen litteraturen som omfavner etnisitet og etnisk konflikt, har viktigheten av etnisk ulikhet og risikoen for konflikt blitt fremhevet. I kontrast til etnisk ulikhet, har den relative distribusjonen av hvordan en etnisk gruppe endrer seg over tid og hvordan det påvirker konflikt, blitt lite undersøkt. Tidligere empirisk forskning på dette området har alle en ting til felles: etniske grupper har blitt studert statisk med tidsinvariant data. Denne oppgaven har forsøkt å presentere en empirisk forklaring om hvorvidt dynamiske endringer i gruppeformasjon har en betydning konflikt. Ved å teste dette forholdet, er det blitt benyttet en bestemt type paneldata med både land og år som ser på skift i den relative distribusjonen av etniske grupper i perioden 1960 til 2013 og sannsynligheten for utløsning av borgerkrig. Oppgaven tester både endringer i gruppeformasjon og populasjonsskift fra en minoritetsgruppe til en majoritetsgruppe og omvendt. Generelt viser funn at det ikke er en sammenheng mellom endringer og skift i etniske grupper og borgerkrig. Tidsvarierende data viser ikke stor forskjell fra å bruke tidsinvariant data. Det mest essensielle funnet viser at land som har en dominerende majoritet, har mindre sannsynlighet for å oppleve borgerkrig. Dette resultatet støtter det synet om at konflikt er mest trolig når et land har to relativt store etniske grupper.

1. Introduction

The question of ethnicity has gained new currency in a globalized world. The dissolution of the USSR and the war in the Balkans led to new scholarly interest in ethnic and nationalist factors in violent conflict. To a great degree, globalization consists of the spread of markets and democracy worldwide. Some claim that ethnic violence and its relationship with free market democracies is inseparable linked to globalization. In other words, some expect that the global spread of markets and democracy can worsen the chances of ethnic conflict and ethnic frictions in many parts of the World (Chua 2004: 6-9).

In an era of globalization where migration is seen to be increasing, some argue that ethnic groups that specialize in particular forms of economic activity is likely to come into competition leading to social frictions, such as migrant workers with indigenous populations (Olzak 2011). Relevant studies have indicated that ethnicity encourages collective action around ethnic identity when ethnic attributes "such as shared language and culture exist and/or when political exclusion falls along ethnic lines" (Olzak 2011: 6). Several effects on internal armed conflict has received different results theoretical reasoning on the likelihood of civil war. Ethnicity is one of the factors among many currently discussed in the specialized literature on civil war. For example, scholars argue about the relative effects of ethnic diversity versus polarization, and the grievance-based arguments around ethnic group exclusion from state power.

A large debate in the literature of ethnic conflict has discussed the relative importance of ethnic diversity and the risk of conflict (Horowitz 1985; Fearon & Laitin 2003; Collier & Hoeffler 2004). Whether or not conflict is a result of fractionalization or polarization, is an ongoing debate in the social sciences. Economists in particular have focused on ethnic fractionalization as a major cause of underdevelopment (Easterly 2006). Why should a multiethnic country with many ethnic differences matter for conflict are explained simply due

to diverse preferences and coordination failure. Apparently, if a country has many ethnic groups, they will fail to coordinate collective action.

In contrast to ethnic diversity, the question of how the relative distribution of an ethnic group changes over time and how that affects conflict has been underresearched. Empirical measurements of how ethnic configurations in a society can trigger conflict is relevant, but all previous research on this matter have one thing in common: ethnic groups have been studied empirically in a static manner. Using time invariant data, ethnic group configuration in a country will be the same in 1960 as in 2013. By measuring the dynamic changes in the relative proportions of a country's ethnic groups over time, this study will test several hypotheses relating ethnic demographic change to violence. The subject of this thesis is to offer an empirical explanation to whether or not change in the relative distribution of ethnic groups and transitions in demographic size between ethnic groups matter for conflict. Thus, the research question to be examined is:

Can dynamic changes in ethnic composition where there are shifts in the relative distribution of majority groups and minority groups, increase the risk of civil war?

Following Monika Duffy Toft (2007), being the other study to have looked at this question, I test to see whether dynamic changes and shifts in ethnic group size in a country for each year in the period from 1960 to 2013 can lead to an onset of civil war. The difference between her analysis and this thesis is that Toft (2007) has calculated data for each decade where she looks at all transitions in demographic size whereas this research looks at all dynamic changes for each year, transitions involving the majority, and transitions involving only minorities. Why a transition occurring in a previous decade would lead to civil war in the next decade is theoretically not clear, therefore I use a strategy where transitions and war are looked at on an annual basis so that there is a greater proximity of action.

This thesis studies both changes and transitions as onsets of civil war and ethnic war. Changes signify the growing or decreasing share in an ethnic group, and demographic shifts ending in transitions of a majority by a minority or vice versa. Following Toft (2007), I also test for the logic of the power transition theory and the balance of power theory to see if they provide an overall explanation of the circumstances under which demographic transitions, majority or minority, will increase the risk of civil war. In order to empirically test this, I use time-series cross-sectional data on 147 countries for which data on all variables are available. The composition of ethnic groups data is taken from the Cline Center for Democracy being the only dataset which looks at dynamic changes in ethnic group configurations over time. The dataset is merged together with data from the World Bank and the Uppsala Conflict database, as well as data from Fearon and Laitin (2003). Can the configuration and reconfiguration of ethnic groups destabilize societies?

Findings show that out of the total 76 transitions, only two transitions lead to conflict. 12 majority transitions were found with only 1 transition leading to conflict. 64 minority transitions got the same result, with only 1 transition leading to civil war outbreak. These results demonstrate that transitions between ethnic groups are not very well connected to conflict, which generally support the same results and correlations as Toft (2007): the relationship between transitions and civil war outbreak is statistically insignificant over all.

Testing for ethnic group change over time, the main finding shows that majority dominance is negatively linked to civil war indicating that when a majority dominates in a country, the chances of experiencing civil war is less likely. This result lends support to the view that conflict is likelier when there are two fairly big ethnic groups.

In general, by using data with dynamic measures, no real improvement in terms of an empirical association between ethnic group size and conflict can be demonstrated. The results therefore suggest that ethnic group change and civil war have a weak connection. Shifts in

power also seem to have a weak connection to conflict, but power still matters in the way relevant actors are aware of the consequences of shifts in power. Other results suggest that relative polarization rather than homogeneity and fractionalization is what matters. Following others, the most robust findings correlating highly with civil war, are large populations and the level of development.

This paper proceeds as follows: in the first section, a theoretical framework is provided in order to grasp the fundamental debate and arguments around ethnicity and ethnic conflict. Ethnic diversity, ethnic exclusion, and demographic changes and their connection to conflict are examined. Next, I present logical and testable hypotheses derived from the competing theories. The next section explains the methods discussion of why ethnic group demographic change may matter to trigger conflict, and several hypotheses are offered. I then discuss data used in this analysis following a third section with a presentation of the statistical tests in order to see if dynamic changes and transitions can predict the likelihood of civil war. The last section discusses the findings compared with theory and previous research on the matter.

2. Theoretical framework

The main goal for this study is to offer an empirical explanation of whether or not dynamic change of ethnic groups matters for conflict. In order to do this, I draw from existing literature on ethnicity and conflict, starting with explaining ethnicity at the most basic level. In order for a conflict to begin, individuals must feel some kind of resentment against the state and the status quo in order to rebel. Grievances, opportunity, and repression - are some of the many catalysts of civil conflict (Gurr 1993). This chapter examines all of these aspects from definitions of ethnicity to causes of civil war.

2.1 Ethnicity, identity, and conflict

After the Cold War ended, ethnicity as a factor in civil war has been prioritized by academics in political science, economics, sociology and anthropology. The issue of ethnicity and ethnic conflict continue to dominate the political sphere, having a prominent impact on political discussions in many countries, particularly in the developing world. From extreme cases of civil war to intervals of ethnic violence that break down societies, ethnicity has now a prominent position in discussions around development (Kanbur et al. 2011: 147). Starting any analysis on ethnicity and ethnic conflict needs a correct definition of ethnicity, how we perceive the meaning of ethnicity and address the question of how it is to be measured (Ibid: 148).

Ever since Horowitz's (1985) publication on *Ethnic groups in conflict*, there has been a convergence between authors on which identities we are to categorize as ethnic. According to Horowitz, ethnicity is like an umbrella term that "easily embraces groups differentiated by color, language, and religion; it covers tribes, races, nationalities and castes (Horowitz 2000: 53). A lot of the recent literature on ethnicity has used this umbrella concept. Furthermore, the

four leading cross-national empirical datasets on ethnic groups in comparative politics do use Horowitz's concept of ethnicity[1] (Chandra 2006: 397).

Two decades have passed since *Ethnic groups in conflict* was published, and there has been a rapid increase in the study of ethnicity and ethnic conflict. What do we know about how ethnicity matters for social outcomes? (Varshney 2007: 275). Brubaker and Laitin (1998) have studied the relationship between ethnicity and nationalist violence arguing that the problem with addressing it is that there is no existing agreement on how things are to be described or what should be explained. Instead of confronting theories, we create different ways of forming an idea on the phenomenon being studied (Brubaker & Laitin 1998: 427).

There is a great amount of literature on the study of ethnicity, arguing that ethnicity matters for conflict. Factors such as economic growth, population size, institutions, regime types and others have been tested in empirical studies often using cross-national data (Horowitz 2000; Collier & Hoeffler 2004; Fearon & Laitin; 2003). However, the measurement of ethnicity has not been consistent when it comes to operationalizing it in empirical work, making it problematic to conclude if ethnicity has a causal link with violence.

The challenge of making ethnic conflict a functioning idea starts with finding a working definition of ethnicity itself. Ethnicity is generally defined as a part of a person's identity derived from one or more attributes like religion, race, language, shared history, and area. It separates from "that part of a person's identity that comes from, say, personal moral doctrine, economic states, civil affiliations or personal history" (Gilley 2004: 1158). A definition on ethnicity is moreover essential because a definition can tell us how to evaluate and create theories on ethnic identity and the ideas based on this term such as ethnic diversity,

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[1] The four principal datasets on ethnic groups:
1. The Atlas Narodov Mira (Bruk & Apenchenko 1964).
2. Data set on ethnic groups in 190 countries (Alesina et al. 2003).
3. Ethnic groups in 160 countries (Fearon 2003).
4. The Minorities at Risk project (Gurr 1993).

ethnic conflict, ethnic representation in political parties and so on as an independent variable (Chandra 2006: 397).

Horowitz (2000) illustrates that ethnicity is not only connected to race or language as the traditional explanation of ethnicity is, but that they are rather different forms of ethnicity (Horowitz 2000: 53). Changes of ethnic identity do sometimes occur even though ethnic identity has a steady grip on individuals. Ethnicity is *socially relevant* when people are observant of ethnic differences and actions in the daily life. When politics is organized along ethnic lines or when economic or political advantages is founded on ethnicity, ethnicity is said to be *politicized*. However, these factors may vary across countries and over time (Fearon 2006: 853).

Group origins is also of great significance for the collective aspect because the group is continuous, involving several generations, and is independent of its present members (Horowitz 2000: 52). In nearly all countries, citizens agree that ethnic groups exist, but not all countries are familiar with what the ethnic groups are. Taking the United States as an example, the present census class of people include Native Americans, Whites, Asians, Hispanics, and so on. Whereas Arab Americans, Mexican Americans, German Americans and so forth, are not regarded as categories. The US also makes a distinction between race and ethnicity giving no explanation of why. This issue is especially troublesome for numerous countries, "rendering it difficult to make more than quite subjective estimates of the number of ethnic groups in many countries" (Fearon 2006: 854).

Brubaker (2004), suggests that we should stop seeing ethnicity in terms of units and groups, but rather look at ethnicity as a political and cultural process, and look at "groupness" as a conceptual variable group (Brubaker 2004: 11). By doubting the ethnic group as the component of analysis might lead us to "question the domain of analysis: ethnicity itself" (Brubaker 2004: 27).

2.2 Ethnic conflict

Ethnic nationalism is argued to be the primary source of intergroup civil conflict. According to Fearon (2006), about 100 out of 709 minority ethnic groups, engaged in an uprising against the state at one point between 1945 and 1998. Why do ethnic groups form, stick together and in some occasions engage in combat? Are categories of ethnicity to some degree an act of choice? Scholarly debates between primordialists who view ethnicity as fixed, and instrumentalists who argue that ethnic identity is a chosen matter, have changed the focus away from the fundamental argument that ethnicity is both strong and easily influenced. Instrumentalist see identity change as an individual chose, whereas constructivists focus more on identity shaping in case of a shift in social context. However, both agree that identity choice rather than descent fits the general picture of identities (Sambanis & Shayo 2013: 299; Kanbur et al. 2011: 148). An outline of these main ideas deserves a discussion in order to understand how these scholarly debates view the issue of ethnicity, identity, and ethnic conflict. I will discuss these two camps and constructivism briefly.

2.2.1   Essentialism

Essentialism is the oldest tradition investigating the concept of ethnicity. The tradition grew in the years after 1945 where they became witnesses of a nation-build-up marked by ethnic resistance from within. The first academic response to this was that even though these states were new, there still existed ethnic hostility embedded in historical roots. The primordialist view was a stronger argument for this behavior. In the 1990s, constructivists attacked the essentialist argument of the historical claim of ethnic hostility. If ethnic hatred was deeply embedded in history, why did ethnic conflict fall and rise in different times? Why did some ethnic groups experience violence while others lived peacefully side by side? As for the conflict between the Hindus and the Muslims, it blazed up in some parts of India but not in the whole country. Furthermore, there were several ethnic conflicts in the world not caused by

old ethnic hostility. In some countries, the old residents got in to a violent confrontation with a new migrant group with some or no historically roots at all such as the conflict between the Chinese and Malays in Malaysia (Varshney 2007: 280). Many ethnic groups are by preference new creations and do not have traditions within the group (Horowitz 2000: 98). Essentialism did not quite vanish, but the attacks on their arguments led to new arguments on the "ancient hatred" argument (Ibid: 281). While ethnic groups may have their own script, it might be that politicization of issues matter.

2.2.2   Instrumentalism

The main idea of instrumentalism is that ethnicity does not have a natural association with human nature. Rather, ethnicity encompasses economic or political interests. Ethnicity is therefore functional in trying to increase political power or for tapping resources from the state. Conflicts can therefore appear because political leaders use ethnicity as a means to get more political power for demanding resources from the state. Some problematic questions have come up due to this argument. Even though leaders would gain in politics using ethnicity as an excuse to mobilize, why would people join? Looking at multiethnic societies, why would leaders believe that ethnicity is a means to power, and not mobilization founded on economic and ideological grievances? Additionally, why would an ethnic mobilization begin even if people have joined an "ethnic campaign"? It is also interesting to ask why rational instrumental individuals would want to take the high risks of getting involved in violent affairs (Ibid: 282). It is possible to understand why it would be instrumentally rational for some people to join an ethnic mobilization when it is close to power, but it does not explain why ethnic mobilization would begin at all. If the odds are so high that ethnic mobilization could lead to violence by another group, it is interesting to ask why reasonable individuals want to take part in ethnic mobilization and take such high risks. One could suggest that individuals are being forced to take part in an ethnic mobilization, but that suggestion would

have to be demonstrated. A deeper description of the incentives and dedication is essential, and some scholars have already addressed these problems, as for example Collier & Hoeffler (2004) and Fearon & Laitin (1996).

Fearon and Laitin (1996) uses the instrumentialist assumptions and argue that cooperative relations between ethnic groups is more usual than extensive violence (Fearon & Laitin 1996: 715). These issues show that both essentialism and instrumentalism have not purely survived without critical examination. There are still instrumental uses of ethnicity out there, but it is necessary to be clear about which types of questions of belief that can be made. Not all kinds of ethnic conflict can be connected to instrumental rationality (Varhsney 2007: 285). The question of why people allow themselves to be instrumentalized still remains a vital question.

Constructivism is a new tradition in the field of nationalism and ethnicity that have challenged essentialism and instrumentalism. The main idea is that our identities are constructions from the modern era. Modernization has changed the meaning of ethnic and national identity (Ibid: 285). Constructivism has been highly influential in the political sphere with argumentations around ethnicity, but explanations of ethnic conflict have also been criticized. There is often no distinction made between conflict and identities when they argue around the concept of ethnic conflict. Some have argued that constructivism and instrumentalism belongs to the same field (Ibid: 287). Chandra (2001) has argued that the separations in the field of ethnicity and nationalism should be considered between essentialists and constructivists and not between constructivists and instrumentalists. However, the two approaches, disagree on one element, and that is the primordialist view of ethnicity. While instrumentalists may see ethnic identity as fluid, constructivists focus on identity as a long-run formation (Varshney 2007: 288).

Getting an insight into these traditions of enquiry is essential in understanding the field of ethnicity and ethnic conflict. Pure essentialists and instrumentalists do no longer exist, and any chance of them merging again is less likely due to the strength of today's empirical evidence. The field is more advanced in the methodological world, and this tells us to rely more on methods in the future work on the topic (Ibid: 291). In other words, asking good empirical questions of the data could lead to greater insight as to how ethnicity explains outcomes rather than simply debate about how it matters. Finding meaningful correlations with real-world outcomes could shed greater light on how ethnicity explains conflict.

2.3 Defining and understanding ethnic groups

The discussion above demonstrates that it is not easy to identify why any group organized around a political issue should be defined as ethnic. Any serious investigation of ethnic conflict should therefore direct careful attention to how ethnic groups are defined in empirical analyses. An ethnic group forms when a mobilization takes place around particular cultural characteristics in such a way that it creates an ethnic identity. The group exists as ethnic when they and others recognize the group as ethnic (Lise Togeby in Østerud 2007: 57).

Marquandt & Herrera (2015) argue that the first step in analyzing the relationship between ethnic groups is to find out whether ethnic groups exists in a state or a given territory. These specifications are significant for analyzing the statistical results and for the causal assertions based on the chosen data sets (Marquandt & Herrera 2015: 3). A classic definition of an ethnic group may be difficult to settle because it is always easy to find groups who fit the definition in terms of common ancestry or shared cultural characteristics, but who are not instinctively ethnic. As well as these, there are groups that do not fit the definition, but who are still classified as ethnic.

Fearon and Laitin (2000) have studied everyday talk between people arguing that implicit rules in their conversations contribute to which groups in the society are considered

ethnic. Therefore, an ethnic group is defined as groups that are larger than the ordinary family where membership is based on a descent rule. Shared cultural characteristics do not seem to be important in whether a group is considered ethnic in daily talk. For instance, Jews do not share cultural features such as a common language, but are still recognized as an ethnic group (Fearon & Laitin 2000; Fearon 2003). The key characteristic of an ethnic group is therefore primarily membership by descent. This may help explain why we see some groups as ethnic in one frame of reference and religious in another. For example, Protestants in the United States are primarily religious than ethnic groups because membership is regarded by faith rather than descent. As for Northern Ireland, descent rather than faith is the deciding principle for membership. This shows that ethnic dissimilarities are customs determined by politics and history rather than by biology (Fearon 2006: 852-53). This may prove that issues could determine identity as much as identity determines issues.

In the theory of ethnic conflict, finding an adequate definition of conflict has not been easy. Nearly all definitions scholars use embody one element of struggle, conflict or clash. This separates the definitions of conflict from competition. According to Fearon (2006), a violent attack can be classified as ethnic if "it is motivated by animosity towards ethnic others; the victims are chosen by ethnic criteria; or the attack is made in the name of an ethnic group" (Fearon 2006: 857). Some scholars even extend the definition of ethnic conflict suggesting that conflict brings about competitions for "mutually exclusive rewards or the use of incompatible/irreconcilable means to a goal" (Horowitz 2000: 95). Even though most scholars emphasize mutually exclusive ends or means when defining ethnic conflict, it does not belong naturally to all types of conflict. Following Horowitz (2000), "conflict is a struggle in which the aim is to gain objectives and simultaneously to neutralize, injure, or eliminate rivals" (Horowitz 2000: 95).

2.4 How does ethnicity explain violence

Ethnic conflict deviate from other types of conflict because of the characteristics of ascriptive identity that defines ethnicity. These identities are difficult to change since they are based on one person's descent. The ascriptive character can guide militant organizations to identify groups as faithful or unfaithful in a way that other conflicts cannot. A very important element of group mobilization is shared identity, and any incident threatening the identity of the group may experience a certain amount of resistance (Smith et al. 1999: 869). Ethnic groups may require rights, territorial self-government, and political representation (Jesse & Williams 2010: 6-7). In order for individuals to rebel, they must feel some resentment against the state and be greatly dissatisfied with the existing state of affairs. However, in most cases, highly dissatisfied individuals do not form a rebellion (Fearon & Laitin 2003).

John Mueller argues that there is no such thing as an ethnic war, but something resembling a violent dispute between non-ethnic groups (Mueller 2000: 42). These non-ethnic groups are small groups of fighters planning to kill and go into battle for someone else or for greater causes than themselves. Therefore, ethnic conflicts is often a condition where a group of people reluctantly comes under the control of small groups of criminals (Ibid).

 Gilley (2004) argue that political conflicts with ethnic attributes cannot be the main reason for calling it an ethnic conflict. When six countries all owning the Mekong River fight over its use, it is not enough to call the conflict ethnic even though all sides are ethnically different. If the concept of ethnic conflict is to be a functional matter, it must point to a distinguishing causal explanation for given happenings of political disagreement. The concept must be able to inform us of what is taking place beyond superficial occurrences. And when it does, he argues that we must be able to measure whether it is obvious or not so it does not develop into unnecessary repetitions every time there is a conflict between individuals of distinct ethnicity. In order to do this, the nature of ethnicity must be taken into account. Many

describe ethnicity as a cognitive phenomenon seeing identity as fixed. Others have turned down primordial beliefs of ethnicity, regarding ethnicity as fluid, leaning on approaches of constructivism. Gilley suggests that these theories can be informally called ethnic theories of ends and means (Ibid: 1158). Mueller (2000), Gilley (2004), and others thus claim that violence itself makes a conflict ethnic rather than ethnicity itself.

2.5 Ethnic groups and territory

Some argue that geography matters for conflict. Following Toft (2003), the crucial element in trying to understand the demands of ethnic groups is their patterns of settlement. Ethnic groups will often seek sovereignty over a certain territory if that area is historically a native land for the group or if it is geographically concentrated. There is a smaller chance that ethnic groups will seek to rule a territory if they are concentrated in cities or spread over a wide area in a state. As for states, their crucial element is previous actions. States will not give up on their territory to one ethnic group where they fear that it might lead to a process where other groups also claim independence (Toft 2003: 19).

In areas where both the legitimacy and capabilities are high together with concentration of ethnic groups in a certain region of a state, the probability of getting groups to demand for sovereignty and regard control over the territory is quite high. States are plausible to take control over a territory when they feel foregoing tensions and its effects blazing up again, leading to a likelihood of violence when both actors look at territorial control as an indivisible matter (Ibid: 2-3). However, if there is a likelihood of war, individuals must be able to avoid government restraint, coordinate for activity, and be able to mobilize enough soldiers to take hostile action towards the potential conflict (Fearon & Laitin 2003).

Another way to investigate civil conflict is beyond borders. Why do wars break out, and where are they most likely to take place? Wimmer and Min (2006) used fixed geographic

territories as the unit of analysis over a period of two centuries in their study. They suggest that two processes have played a prominent role in the likelihood of civil war: "the expansion of empires during the 19th century and the spread of nation-states across the world during the 20th century" (Wimmer & Min 2006: 868). Others have taken into account the issue of contagion from neighboring countries when looking beyond borders. Gleditsch (2007) argues that ethnic groups in trans-bound areas are in greater risk of experiencing conflict. Easterly (2006) problematizes the issue of decolonization and countries with artificial borders where the West played with people as chess pieces in a chess game, violating their rights while chasing their own means to security. This distribution of territory has led to intense grievances in the areas. First, the West gave territory to one group that another group regarded as their homeland. Second, the West divided borders, breaking up ethnic groups across nations, leading to great dissatisfaction around nationalism. Third and final, the West put two groups of enemies in the same country together (Easterly 2006: 256). Reducing the risk of civil war and historical animosity can be strengthened with strong democracies in the districts having greater share of interregional trade.

2.6 Ethnic groups and conflict: the sources of rebellion

In parallel to the classic theories of discovering a crime, rebellion requires both motive and opportunity. The literature of political science describes conflict in terms of motive – situations where grievances are so intense that people want to participate in violent demonstrations (Collier & Hoeffler 2004: 563-564). Civil violence between ethnically distinct groups has received a great deal of attention especially after the fall of the USSR viewing the source of these civil wars based in ethnic and religious hostility. Some study the relationship between ethnic groups and state failure, while others regard the state as ethnically neutral trying to connect demographic measures such as fractionalization and polarization to civil war (Cederman et al. 2010: 87).

Several have stressed the importance of the frustration motive and the opportunity to mobilize for collective action. Tambiah (1996) argues that collective violence is caused by underlying strained factors such as the competition over scarce resources, political power, and limited job prospects (Tambiah 1996: 221). A counterargument is that ethnic conflict is frequently caused by a collective fear for the future. As ethnic groups begin to fear for collective safety, complicated strategies can occur and potentially create violence. When ethnic groups become more anxious and the security dilemma endures, the state weakens and conflict is likely to take place (Lake & Rothchild 1996: 41).

Denny and Walter (2014), argue that mobilization gets easier when grievances and agreement issues tend to fall along ethnic lines. Ethnic groups are in a greater position to face problems with bargaining since ethnic loyalties tend to be more fixed than other types of bargaining, leading to cooperation along ethnic lines being less believable (Denny & Walter 2014: 202). Additionally, historical loss of self-governing, cultural identity and inequality can all play a part in their grievances plus being treated unfavorably compared to other groups (Gurr 1993: 161).

Theories that stress the importance of a group's mobilization are supported in Gurr's (1993) *Why Minorities Rebel* arguing that a determining factor of communal violence during the 1980s was the group's preparedness for political action based on previous actions. Nevertheless, Gurr (1993) argues that they fail to answer the most important theoretical question; why do groups mobilize? Unfavorable circumstances like dissimilarities in economic and political factors, discrimination, and poverty, contributed to the complaints in the 1980s. History have in general played a big role for rebels (Gurr 1993: 188). The general findings proposes a solution to the theoretical debate of civil violence and the issue around mobilization and relative deprivation: objective circumstances like poverty, discrimination and no independence can influence leaders taking steps to collective mobilizing. Complaints

is a critical factor in the early phases of mobilization. The bigger the differences between groups, the easier it is for leaders to recruit members from deprived groups (Ibid: 189).

Cederman, Weidmann & Gleditsch argue that horizontal inequalities between states and politically relevant ethnic groups may encourage ethnonationalist conflict. In unequal countries, ethnic groups with very different economic positions tend to fight more often than countries with groups that have a mediocre wealth (Cederman, Weidmann & Gleditsch 2011: 478).

Taking in economic accounts, Collier and Hoeffler (2004) argue that rebellion is explained through opportunity, and that the situations where people have the opportunity to rebel are rare. This type of rebellion is prompt by greed because profitable circumstances are not fulfilled (Collier & Hoeffler 2004: 563).

2.7 Ethnicity and conflict: why we study civil war

Civil war is the most widespread form of large-scale violence, often causing great damage to life, society, and the economy, leaving it to be the most prevalent form of large-scale violence. Once they have begun, civil wars are difficult to end – often continuing "for more than ten times as long as international wars" (Collier & Hoeffler 2008: 1). The action of preventing an outbreak of civil war seems consequently to be highly prioritized internationally. Informed strategies of preventing civil war ought to rest upon analyses that give information of what makes situations prone to this type of conflict (Ibid).

Further, civil war studies have been in conceptual competitions by similar phenomena such as ethnic conflict and revolutions. This reason may have reflected a normative priority of social revolutions where civil war is not a wanted result (Kalyvas 2010: 416). The violence following the post-Cold War in places such as Yugoslavia, where ethnicity played a prominent role, created a focus on this type of violence, which could be part of a broader

concept. Therefore, civil war led to a new era of research starting in the mid-90s, and has since that time received an increasing interest (Ibid: 417).

A civil war takes place when a domestic political strife takes the form of a military combat or armed fight. Next to the high number of deaths, civil wars often cause several other outcomes such as hunger and epidemics. Economic costs are additionally an unavoidable factor of civil war. Countries that experience civil war suffer the economic consequences.

Why war? Current theories of civil war are incomplete, leaving out progress in behavioral economics and do little development in "key areas like why armed groups form and cohere, or how more than two armed sides compete" (Blattman & Miguel 2010: 3). Empirical work often finds that the two most robust factors linked to civil war is poor economic growth and a low per capita income. Nevertheless, there seems to be little agreement on which policies are most effective in preventing conflicts (Ibid).

Why fight? A central question is why civil wars take place at all. Creating an organized group of armed combatants is costly and wars are generally dangerous and destructive. If the rivaling groups are rational, a bargaining solution would be expected before a potential war breaks out. However, rationalist arguments does not cover possible explanations for why bargaining could fail. There are three factors of why bargaining could fail and lead to a potential war. First, leaders does not always act on a rational basis: made decisions can be based on feelings, or they have not been able to calculate the advantages or risks. Second, leaders can be completely rational, but "not internalize the full cost of conflict because of political agency problems (Fearon 1995 in Blattman & Miguel 2010: 11). Third and final, leaders are rational but see war as an unavoidable factor (Ibid).

In their article *Ethnicity and civil war*, Denny and Walter (2014) ask why most civil wars tend to fall along ethnic lines. Since 1946, ethnic identity has been a significant factor in many civil wars with 64 % of them divided along ethnic lines. However, civil wars does not

seem to be driven by ethnic tensions in itself, and the fighting seems to have been developed by the same grievances that non-ethnic groups rebel for. In general, most civil wars appear to be motivated by the same grievances so why do most divide along ethnic lines? The most self-evident answer is that civil wars contain "many self-determination movements, that, by definition, are ethnic in nature" (Denny & Walter 2014: 199). Self-determination often derive out of ethnic nationalism – ethnic groups wanting political independence from the state – making ethnicity an unavoidable feature of a conflict. Nevertheless, detaching secessionist movements from the civil war list does not remove the puzzle. A big part of the remaining civil wars begins with rebel groups with a different ethnic descent from the government. Discrimination around certain types of societal groups makes ethnicity a well-known characteristic of why rebellions are organized. This signify that ethnicity is still the most important characteristic of why rebels organize (Ibid: 200).

The civil war literature that stresses ethnicity can be divided into two categories where neither is able to explain why so many conflicts divide along ethnic lines. The first category seek to explain why some ethnic groups are driven to mobilize while others are not by looking at the universe of all ethnic groups (Horowitz 1985; Cederman et al. 2010). The other category tries to explain whether the ethnic characteristics of a state can make a country more or less prone to experience conflict (Fearon & Laitin 2003; Collier & Hoeffler 2004). These categories tell us why some groups challenge the state while others do not, and whether the ethnic and demographic characteristics of a country can increase a potential risk of conflict. In spite of that, these literatures does not explain why rebellions often organize around ethnicity and not around some other type of identifying characteristic. Denny and Walter (2014) suggest that rebellions tend to organize around ethnicity because ethnic groups are more likely to be aggrieved, mobilize, and have more difficulty in in meeting bargaining problems than other groups. This is due to a historical distribution of political power founded on ethnicity,

the geographical location of ethnic groups, and identity based on ethnicity that is more fixed in relation to other political processes (Denny & Walter 2014: 200). Civil wars often separate along ethnic lines because these features tend to fall along ethnic lines making mobilization more likely. Yet, a small percentage of ethnic groups meet all of the criteria above. This may account for why so few ethnic groups are willing to rebel (Ibid: 207).

The quantitative literature on civil war lack a consensus on how we code civil war onset and when a war ends (Sambanis 2004: 855). Operationalization and coding decisions are critical when using civil war as a variable and separate a single and sporadic war with a sequence of several separate ones. Coding in the same datasets will lead to inconsistencies, difficult categories, and undependable fatality data on civil war. Another problematic factor is that most civil wars occur in poor countries where record-keeping bureaucracies are absent (Kalyvas 2010: 418). In spite of the fact that it may be impossible to reach a general agreement on one particular definition and measurement on civil war, it is valid to know if the understanding of civil war is influenced by various coding rules (Sambanis 2004: 815). Sambanis's evaluations are still valid: "Perhaps the most important reason that political scientists should study civil war is that it represents the most poorly understood system failure in domestic political processes" (Sambanis 2001: 217).

Finally, civil wars are not necessarily caused by the same factors. These issues may help build the future of civil war research whereas the focus should be on empirical plans with high-quality data strengthened in theory (Ibid: 431).

Since I am addressing ethnic dynamic change as a possible cause for conflict, the most important objectives for conflict opportunities in this study are ethnic exclusion, ethnic diversity, and demographic changes. Therefore, these factors are emphasized as the underlying mechanisms that can be triggered into conflict by shifts in ethnic demography.

2.8 Ethnic exclusion

Cederman et al. (2010), argue that the level of conflict increases with a certain amount of exclusion. They find that conflict between ethnic groups and the state is more likely if (1) a high percentage of members of an ethnic group are excluded from state power, (2) the higher their ability for mobilization, and (3) the more they have been involved in previous conflicts. These findings show that an important factor of the dynamics outbreak of civil war, is ethno-nationalist strives over access to state control (Cederman et al. 2010: 88). When political leaders and their followers are in the state of pervasive ethnic favoritism, they are often driven by the motive of ethnic exclusion to avoid certain groups (Ibid: 94).

Following Lemarchand (2004), political exclusion of a certain ethnic group "means the denial of political rights to specific ethnic or ethno-regional communities, most notably the right to vote, organize political parties, freely contest elections, and thus become full participants in the political life of their country" (Lemarchand 2004: 66). Excluded groups from state power are more likely to join organizations that confront the state.

Cederman et al. (2009) analyze the mechanisms of excluded groups, and find that the risk of conflict for excluded groups increases with their relative size in contrast to the groups already in power, the distance to the country's capital, and the roughness of their land. The effect of the demographic size gives support for all ethnic civil wars (Cederman et al. 2009: 497).

Horowitz (1991) suggests that one good way to integrate minority groups is "vote pooling", making acquisition of power reliant on some part of minority voting. Giving minorities certain shares of power is not good for peace, leaving a focus on set identities (Horowitz 1991: 42-43). Focusing on majority rule, a potential explanation of excluding certain groups can be a result of those groups changing in size. This may seem like a threat for

the current political elite, leading to a potential dispute (Ibid). Can change on the decline in the demographic size of a group explain why ethnic exclusion happens?

2.9 Polarization, fractionalization, and conflict

Whether conflict is the result of fractionalization or polarization is an unsolved debate in theory. The discussion of whether a relatively diverse country with many small groups is more or less stable than a country with two equally large groups, goes back to Madison and the Federalist papers (Alesina et al. 2003: 177-178). A general supposition of polarization is when the population is distributed into two equally sized groups in a country. When this happens, the country reaches the maximum quantity of conflict. In the opposite direction, a highly diverse country will not have a great risk in experiencing an equilibrium conflict (Esteban & Schneider 2008: 135).

The traditional measure of ethnic fractionalization is the index constructed by Soviet researchers and published in the Atlas Narodov Mira in the 1960s. The index[2] captures the probability that two random individuals from the same country belong to two different groups. Opposite from this is the measure of polarization, which is normally maximized when two groups with equal size faces each other (Kanbur et al. 2011: 156). In order words, fractionalization increases when there are many small groups whereas polarization becomes likely when two groups are equivalent in size (Ibid: 177).

Some studies have tried to measure fractionalization and polarization on various types of conflict, such as ethnic groups and state failure, explaining conflict because of an absent state. Others have looked at the state as ethnically neutral and tried to see a connection between ethnodemographic measures on civil war (Cederman, Wimmer & Min 2010: 87). A few scholars have further focused on the issue of ethnic diversity leading to civil war with

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[2] The index has received criticism for being difficult and lacking the means to catch the channels through which ethnicity results in civil war. One critique of the index is that it does not catch various dimensions of ethnicity such as religion and race (Kanbur et al. 2011: 149).

arguments centering on ethnic group dynamics and demography (Toft 2003; Posen 1993).

There are at least three existing arguments on this aspect. Firstly, a state collapse can create a

security dilemma, which may lead to conflict because of the uncertainty of the other group.

Neither group knows the other's aim, giving each group an "incentive to build up defensive

capabilities to protect itself from an attack by the other group (Kalyvas 2010: 419). Defensive

build up can therefore be perceived as a hostile signal since there are high uncertainty from

both parts.

The other story on how ethnic divisions may lead to civil war is the "commitment

problem". The problem occurs when two groups do not have a third party present to ensure

that the agreements between them are being upheld (Fearon 1998). The third and final story is

that civil war is caused by minority groups, which may lead to a secessionist conflict where

the groups wishes to form their own separate state. Secessionists often lack military resources

leading them to express a military challenge based on ethnic networks. Wimmer and Min

(2006) find that wars are more likely when nation-states go through an institutional

transformation. The rise of nation-states is further related to power struggles because of

political discrimination along ethnic lines and the resulting request for ethnically homogenous

states (Wimmer & Min 2006: 867).

The literature of ethnic diversity and civil war is now fairly large. In a theoretical

perspective, Horowitz (1985) argues in his book that the most intense conflicts take place in

societies where an ethnic majority faces a large minority (Horowitz (1985). This argument has

been broadly used by others in their empirical search for a connection between ethnic

diversity and conflict. In terms of the empirical literature, several authors have stressed the

importance of ethnic heterogeneity, and found different results between ethnic

fractionalization, polarization, and conflict. Some of the main findings in the literature is

illustrated below.

Fearon and Laitin (2003) tests ethnic and religious diversity on civil war using data for the period of 1945 to 1999. Findings show that ethnic and religious characteristics could not explain why some countries had a greater risk in experiencing civil war in this period. The factors that did explain the likelihood of civil war, was conditions favoring insurgency. These conditions included large populations, poverty which often bring about weak institutions and political instability, a rough terrain, and rebel enrollment (Fearon & Laitin 2003: 75).

Ellingsen (2000) examined the relationship between multiethnicity and domestic conflict in the period from 1946 to 1992, finding that multiethnicity did not increase the likelihood of domestic violence. Other factors such as regime type and socioeconomic development had a higher explanation factor in increasing domestic violence (Ellingsen 2000: 245).

Jenkins & Kposow (1992) studied ethnic competition and found in their work that the closer the size of the two largest groups, the greater the likelihood of coups (Jenkins & Kposowa 1992).

Collier and Hoeffler (2004) investigate the potential causes of civil war by testing for ethnic polarization and religious fractionalization. They suggest that ethnic diverse countries are safer than homogenous societies if they avoid dominance. Ethnic diversity can make it more difficult to create opportunities for rebellion because forming a rebel group is costly (Collier & Hoeffler 2004: 588). Further, investigating if civil wars have economic causes, Collier and Hoeffler (1998) find that highly fractionalized countries are at no greater risk of experiencing civil war than homogenous countries (Collier & Hoeffler 1998: 563).

Montalvo and Reynal-Querol (2004) argue that even though ethnic fragmentation may be important for growth, results show that fractionalization has very little effect on civil conflict. The polarization index however, is a significant explanatory variable for civil war. This indicates that the measure of heterogeneity suitable to capture a possible conflict should

be a measure of polarization. For that reason, it may seem that the measure of ethnic heterogeneity on civil wars has weak explanatory power because most studies use the index of fractionalization rather than an index of polarization (Montalvo & Reynal-Querol 2004: 31-32).

Looking at the economic consequences of ethnic conflict, Campos and Kuzeyev (2007) measure ethnic diversity over time and evaluate its effect on economic performance. Results show that ethnic diversity is negatively linked to economic growth. This finding is robust for the use of various specifications, measures of polarization, and to a compound ethnic-, linguistic- and religious index of fractionalization (Campos & Kuzeyev 2007: 3-4). In general, it appears to be an existing agreement between authors testing the effect of ethnic heterogeneity and civil war that it is groups and not individuals that are the main actors of violent disputes on a large-scale level (Esteban & Schneider 2008: 133).

Measures of ethnic fractionalization and polarization are important for this study because it stresses the composition and distribution of ethnic groups in a country. However, these variables do not measure dynamic change over time so a polarized country in 1960 still remains polarized during the length of most empirical analyses.

2.10 Demographic change and violent conflict

Discussions on how ethnicity matters for conflict cannot ignore questions of demographic balance and dynamic change. Concerning shifts in the relative distribution of ethnic groups, shifts in ethnic population sizes can be a significant factor in conflict. Demographic variables such as migration, age- and gender distribution, fertility and mortality rates, geographical distribution, and population size and changes have been described as important factors of violent conflict, political instability, ethnic and religious conflict, economic development and stagnation, and environmental deterioration (Weiner & Russell 2001: 1). Can changes in demographic variables, such as population size, growth, and composition, affect the stability

and security in a country? Goldstone (2002) emphasizes how demographic change can be a means to violent conflict because of the spread of economic development that have affected transitions along demographic borders. Political demography can be defined through Myron Weiner words:

> Political demography is the study of the size, composition, and distribution of population in relation to both government and politics. It is concerned with the political consequences of population change, especially the effects of population change on the demands made upon governments, on the performance of governments, and on the distribution of political power. It also considers the political determinants of population change, especially the political causes of the movement of people, the relationship of various population configurations to the structures and functions of government, and the public policy directed at affecting the size, composition, and distribution of populations (Weiner 1971: 567 in Weiner & Russell 2001: 3).

After Myron Weiner's definition (1971) of political demography, scholars have started to focus on population growth and how it may cause conflict within states (Weiner & Russell 2001: 3). Some of the consequences population growth can have on security is shortly summarized with more detail below:

1. Whereas population growth often causes environmental degradations, it is not the main cause of ethnic conflict or international war. Environmental degradation in water resources, farmable land, and other resources, do often bring about misery. Nevertheless, in most cases, misery does not lead to a mobilization of resistance towards the government, which is essential in order to create conflicts on a large-scale level.

2. Population growth can increase the risk of conflict over scarce resources if the conflicts concern competition theory between groups. Nevertheless, the rise of bloody conflicts determines the capacity of the state and the current relationship between the elites, the popular groups, and the state (Goldstone 2002: 4).

3. Overall, population growth and population solidity do not estimate conflicts, but certain kinds of demographic changes could increase the risk of ethnic and intraregional conflict. Some examples of such changes are: quick growth in the labor force in economies with slow growth, inadequate growth rates between ethnic groups, educated youths

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challenging elite positions, urbanization that surpass the employment growth leading to migration and an imbalance between ethnic groups.

4. Generally, population changes do not increase the risk of international conflict between domestically stable states. Nevertheless, in circumstances where population changes create domestic violence, the possibility of international war is greater because a large number of international wars have their sources in domestic disputes.

5. Certain demographic changes such as a rise in mortality rates and migration can act as strong indicators of potential political disputes. In addition, rapid demographic changes such as growth in mortality or migration can occur as an outcome of violent conflicts (Ibid: 5).

2.10.1 The environment as a cause of conflict

Thomas Homer-Dixon (1991) stimulated heated discussion when he stated that we are on the cusp of a period of history where conflict will arise as a consequence of environmental change (Homer-Dixon 1991: 76-77). However, in recent years, this claim has received little empirical support. Over a decade, research shows that environmental degradation over a long period plays a small part in causing wars. Cross-national studies have found weak connections between conflict and environmental degradation, leaving the relative impact of environmental causes of small significance for the occurrence of conflict. Studies that measure the relative impact the environment have on conflict have been less prioritized as causes for conflict than economic and political factors.

For instance, Hauge and Ellingsen (1998) have tested environmental scarcity on conflict, finding that countries afflicted by environmental deterioration – especially in land – have a greater risk at experiencing civil conflict. Nevertheless, the impact of economic and political factors are of greater value in predicting conflict than environmental factors.

Findings also show that a degradation in environmental factors do have a greater impact on smaller rather than large armed conflicts (Hauge & Ellingsen 1998: 314).

Following Goldstone (2002), a great deal of the literature on environmental scarcity and violence have been wrong in estimating the issue of conflict because they fail to understand the sources of political crises. There are indeed findings that show that inequality between groups or poverty do not grow into political or ethnic conflicts. In order to create conflicts on a large-scale, there must be some kind of elite mobilizing popular groups. In addition, the state must be in some position of relative disadvantage or else there would be no popular discontent (Goldstone 2002: 8). Countries such as Kenya seem to have conflict over scarcity of resources. However, the essence of violence have in most cases been between fights among elites over getting political power which gives them control over land and other resources. With the absence of political struggles between elites, there is a slighter chance that political conflicts on a large-scale will arise. Control over natural resources is overall an insufficient factor and thus cannot be a crucial cause of violent conflicts (Ibid: 9). However, the discussion about the environment and conflict highlight the importance of demographic factors and demographic pressure as an important consideration when discussing ethnic conflict.

2.10.2 Population changes and conflict

How does differential growth of groups lead to conflict? Why do demographic changes occur? Three arguments are suggested: (1) Competition theory, (2) Political mobilization and (3) Resource scarcity. The central claim of competition theory is that a competition between ethnic or racial groups tend to create a conflict between them. Socio-economic changes increase the competition of ethnic groups and increase the risk of conflict. Ecological theories of ethnic conflict and competition have more recently suggested that large-scale changes in

economy and modernization can lead to a shift in levels of competition among groups (Olzak 1992: 15).

There can be several reasons for a group to mobilize. The opportunity to mobilize for collective action can be caused by factors such as competition for political power, certain amount of exclusion and competition over scarce resources as illustrated above. Competition over political power emphasizes that mobilization will come to light when new groups pose threats to the existing power balance and the dominant groups in a country. As a reaction, the dominant groups may mobilize for collective action to avoid a potential loss in power. Newly arrived ethnic groups can endanger the country's status quo and set this kind of power-threat in motion (Ibid).

Further, competition theory also emphasizes the issue of economic competition among ethnic groups. When ethnic groups enter a population, competition over scarce resources will increase. Economic tightening will additionally increase the competition over these scarce resources, raising the possibility for dominant groups to try to marginalize the growing minorities that have less power. The argument of economic contraction also insinuate that a marketplace competition bring about an awareness of an unjust competition which may further grow into a conflict between the actors.

An explanation of why economic competition produces ethnic conflict relies on the distribution of the members in the different groups into profitable niches. Economic competition intensifies when new groups invade another groups' niche. A niche overlap occurs when a country has features of economic contradiction, migration within the state or if there is a rising mobility of an unfavorable group. Conflict therefore occurs when members of one ethnic group are refused to join another ethnic groups' niche (Olzak 2013: 1). Separating the economic, political and demographic characteristics of competition is analytical functional, but in practice, they frequently take place together (Ibid: 2).

2.10.3 Population changes and growth

Population changes and growth is argued to be one of the factors leading to violent conflict. Research has sorted out several examples where certain kinds of population changes are strongly linked to political unrest. However, only looking at population growth as a factor to why population changes may lead to conflict is too easy. More precisely, there are certain kinds of demographic changes taking place within political and economic contexts that increase instability and conflict risk. For instance, if a growing population is in need of more land and finds that adjacent land is being owned and used by landowners only, conflict may increase and is often unavoidable (Goldstone 2002: 9).

Do markets have an impact on ethnic tensions? There are arguments on both sides when questioning the impact markets have on ethnic strains. On the one side, markets reduce ethnicity because the opportunity of market and profit lies mostly at the individual, undermining the collective aspect of a group (Ibid). This can contribute to lessening social sanctions and norms of ethnic groups and increasing the chances for individuals (Bardhan 1997: 1386-1387). On the other hand, markets and its expansion may emphasize ethnic tensions by increasing inequality and fragmentation. When a country moves from a system of control to a market of system regulation, distribution of resources do reward the individuals in business and more provided leaving others behind. In this process of distribution, some groups do not have the human capital nor any credit in order to adapt to the new technologies and opportunities. Further, the ability of the state is often limited in its ability to insure the losing groups against these regulations (Bardhan 1997: 1387).

From markets to income – "one aspect of a more general principle relating population changes to political instability, is that problems arise when there is a persistent mismatch between employment prospects and the size and nature of the labor force" (Goldstone 2002: 10). Not only the problem with over-urbanization, but also a high percentage of educated

young people can bring about political dissatisfaction when prospects for getting jobs are limited. A rapid growth of youth cohorts can create instability in areas and further challenge certain authorities in the manner of religion and existing political coalitions. Youth bulges can also be relatively easy to mobilize for political or social conflicts since they often are free of careers and family responsibilities (Ibid). Youth have been a well-known factor of political violence throughout history and have been present in revolutions such as the one in France, which took place in the eighteenth century.[3] Henrik Urdal (2006) tested the claim that youth bulges increase opportunities for political conflict by using cross-national data. Results show that these youth bulges do get support for three forms of internal political violence: armed conflict, terrorism and riots (Urdal 2006: 607-608).

Moreover, countries that have low growth rates may also experience changes in the population that can play a part in political conflicts. It is not the total percentage of the population growth that matters but the disparity between a country's population and the growth of the economy that is critical for creating conflicts. An example is the USSR in the period from 1970 to 1991, which had an almost stagnated economic growth together with a low population growth. Despite these conditions, the USSR still experienced several demographic changes such as a high increase in educated young people getting jobs as a manual labor, and an increase of Russian migrants into regions of soviet republics where non-Russians dominated. Factors like these became crucial in order to mobilize the oppositions that contributed to the breakdown of the USSR (Goldstone 2002: 15).

Further, some researchers have looked into the relationship between population size and conflict arguing that the population size affects both conflict occurrence and restrain on the state (Fearon & Laitin 2003: Bruckner 2010). Henderson (1993) argue that countries with a fast growing population have a higher chance in experiencing state repression. Larger

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[3] Using the official definition from the UN, a youth bulge is the total percentage of the adult population in the age of 15 to 24 (The UN 2008).

populations also bring about more opportunities for disputes between ethnic groups. These diverse results indicate a careful approach on deciding the exact effects population variables have on conflict. Some of the explanation to this can be that scholars use different methods to examine their data. The matter of fact is that there is an ongoing disagreement over how we are to analyze data sets of considerable large numbers of 0/1 (peace/war) over several years and from different countries. This is mainly when these observations of war are few in contrast to the years of peace. The method that will give the best calculations on the effects of population variables in this kind of data are not yet decided by researchers. Various approaches will get different calculations of the significance of certain variables (Goldstone 2002: 12).

Another and possibly more important argument of difference is that demographic factors are only a part of the "complex causal forces behind violent conflicts" (Goldstone 2002: 12). There are a widespread agreement that certain variables such as regime type and GDP per capita are crucial components in affecting risk of violence. An unsuccessful economic policy in a country can cause hopelessness and despair, bringing a contribution to create grievances along ethnic lines. An example of one state's control over economic failure is the nationalization and industrialization in North Africa, which have led to great Islamic movements among the lower classes of the population. Poor economic opportunities imply that there is a limitation of choices encouraging some people to look in other directions for prosperity often finding support in their ethnic heritage (Bardhan 1997: 1386).

For those concerned about global population, there are some satisfactory news that there is a marked decrease in population growth in numerous countries. However, there are no formula on the concerns around the consequences of security on population change. Countries can still experience clashes of conflict due to a decrease in overall economic growth. Several factors – colonial history, rough terrain, trade, and leadership – have been suggested to play a

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part to conflict. Population changes may in some incidents interact and overlap with some of these causal factors (Ibid).

2.10.4 Population movements and conflict

Movements of people across or within borders may also be a contributing factor to conflict. However, migration is not the critical element here since economic migration often leads to considerable benefits for the country and the migrants. The problematic factor often leading to conflict is the aspect of national identity. If an ethnic group moves into an area regarded as homeland by another ethnic group and challenges the group's authority, conflicts may arise. If these conflicts grow into a struggle over this area, conflict can further result into ethnic war and in some few cases genocide (Goldstone 2002: 14: Bardhan 1997). Changing patterns of migration can change a country's ethnic balance and may further intensify dissatisfaction towards refugees among the local population. Changes in demography as a result of migration can intensify the native descent among the locals and can be the driving motivation for the "sons of the soil" movements (Salyhan & Gleditsch 2006: 343). Large movements of "new" people can be seen as a threat for certain groups leading several to fear for their status (Ibid). Fearon and Laitin (2011) find in their study that 31 % of the ethnic civil wars are wars between members of the minority group located in a certain region seeing their group as "sons of the soil" and migrants from other parts of the country. The migrants are often members of the country's majority group moving to the region for jobs or in search for land (Fearon & Laitin 2011: 199). Based on the minorities at risk (MAR) data, it appears that the potential competition between sons of the soil and migrants are especially conflict prone – several have been involved in guerilla operations on a small-scale level since 1980 (Ibid: 201).

Salehyan and Gleditsch (2006) argue that population movements in the case of refugee flows can be a possible cause for violent conflict. For instance, refugee flows from Liberia gave rise to instability in Sierra Leone and other places – forced migration turned to violence

in Balkan states – and refugees from the Rwandan war fleeing to neighboring countries where some became entangled in conflicts in the Democratic Republic of the Congo (Salehyan & Gleditsch 2006: 388). Looking at the relationship between demography and security, analysts of foreign policy now identify forced movements of people not only as a result of war, but also as a factor causing conflict between states and use of coercion by others. A few examples are the U.S. intervention in Haiti where part of the task was to stop the arrival of Haitian migrants into Florida in boats; the NATO intervention in Kosovo; and the decision by U.S. authorities to create a secure place for Kurds in the northern part of Iraq prohibiting them from escaping to Turkey (Weiner & Russell 2001: 5). Through a statistical analysis of refugees and civil war onset during the period of 1951 to 2001, Salehyan and Gleditsch (2006) find that countries who witness an arrival of a great amount of refugees from neighboring states are at a greater risk of experiencing civil war (Salehyan & Gleditsch 2006: 388). However, in most cases, refugee flows do not lead to violence (Ibid: 362).

It is necessary to state that there is not a unidirectional relationship between conflict and population changes. Conflicts can also affect demographic changes such as revolutions, which often cause marked-shifts in birth rates, education, urbanization and migration. Bloody conflicts rarely have a final ending. It is more common that conflicts go in cycles and succeed one another. An explanation may be that violent conflicts often cause population changes leading to the potential of renewed political risks in the future. (Goldstone 2002: 17). Having a focus on demographic changes could help foresee some upcoming security problems in the future (Ibid: 18).

2.11 Hypotheses from the rivaling theories

What needs to be studied in order to say that ethnicity matters for conflict? Previous empirical work on fractionalization and polarization shows that what all measurements have in common is that they have examined it in a static manner. Looking at Toft's (2007) study on population shifts as the closest source on dynamic change, an examination on whether a change in ethnic composition over time can be a factor in explaining an onset of civil war is the core in this study. I argue that previous work on this subject– except for Toft (2007), have only examined the static relationship between ethnic groups and violence as if the composition of ethnic groups are the same over time. What matters is how the group size share changes over time.

The main goal for this study is to offer an empirical proposition on the relationship between ethnic conflict and dynamic change. Following Toft (2007), the core of this study is to see any impact, or not, relative shifts in the size of ethnic groups have within a country. Do changes and transitions matter for conflict? An ideal-type model would be demonstrating two actors: the majority group (the largest) and the minority group (the second largest group). Changing circumstances can be when one group (1) increases in size, (2) decreases in size, or (3) experiences a transition (Toft 2007: 249). These factors and the possible outcomes are summarized in the following hypotheses below.

As a basis, I take previous empirical work on the issue of ethnic diversity and ethnic exclusion for extending the question of ethnic group change and conflict. At last, Toft's (2007) study on population shifts on the relative distribution of ethnic groups are essential for this analysis since it is the only study so far that looks at dynamic change as a cause of conflict.

The exclusion mechanism warns us of the effects of changes in a power system. A mechanism of competition theory suggests that dominant groups will mobilize for collective action whenever they feel a possible loss of their political authority (Olzak 2013: 1). Ethnic

dominance theory argued originally that a large majority would stimulate rebellion by excluding the smaller groups from power. Jackman (1978) finds in his analysis that ethnic dominance has destabilizing effects. Political instability seems to occur when one group becomes dominant. In this case, the minimum of 44 % of the population share[4] (Jackman 1978: 1273).

Ellingsen (2000) investigates the relationship between multiethnicity and domestic conflict in the period from 1946 to 1992.[5] In countries where the population share of the dominant group is less than 80 %, they have a higher risk of experiencing domestic conflict than countries who are more homogenous (Ibid: 244). For that reason, she argues that the relationship between the total number of groups and conflict is curvilinear, meaning that very diverse and highly homogeneous states face a lower risk of conflict than countries with a few strong groups (Ibid). Groups decreasing in size can blame the other groups for their relative decline, often leading bitterness to fight in order to alter the circumstances. Political leaders are therefore most likely to strive for action if they at a recent time have experienced loss of relative power. This reasoning is summarized in the following hypothesis:

> **H$_1$**: If an ethnic majority group is losing its population share, the risk of conflict is likely to increase.

Cederman and Giardin (2007) studied the issue of ethnic dominance and found that minority rule is linked to an increased risk of conflict, but the results turned out to be not robust (Cederman & Giardin 2007: 180). Looking at majority rule, smaller groups can be excluded from power, which can be a contributor to create grievances among the masses (Jackman 1978). Additionally, minority groups may in most cases be exposed to danger when the largest ethnic group constitutes a weak majority. The issue of political instability seems to

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[4] Note that Jackman studies coups d'etat and not civil war.
[5] Multiethnicity is measured as the largest ethnic group, the size of the largest ethnic minority group, ethnic similarities with groups outside the country, and total number of ethnic groups (Ellingsen 2000: 228).

appear when one ethnic group's size becomes so dominant that it leads to stimulating smaller groups to mobilize by trying to exclude them from power (Jackman 1978: 1273). Further, competition theory of race and ethnic conflict argues that discrimination, violence or exclusion of a minority, are dependent upon the speed of change and the relative size of the populations, creating these demographic shifts (Olzak 2013: 1). This reasoning leads to the following hypothesis:

> **H$_2$**: If the size of the second largest group is growing in size, the risk of conflict is likely.

Following Toft (2007), the logic of the power theories on transitions are emphasized. The power transition theory (PTT) emerged in the 1950s as a critique of the balance of power theory (BPT) holding that an equal distribution of power between states would ensure peace. Organski (1958) developed the theory in response to an empirical deviation in BPT: wars tended to break out when competing powers were near or past the power equality – an outcome BPT argued would be good for establishing peace. Organski and later Organski and Kugler (1980) argue that the answer lies in variations in relative power when a nation or a coalition of states increase so much in power that they become a threat to the preexisting order. Peace is likely to maintain when there is an imbalance of national capabilities between nations of different status: the attacker is most likely to be the weaker power unhappy with the status quo (Organski & Kugler 1980: 19).

As for the balance of power theory, it suggests that peace is more likely when power among great nations or between members of alliances is more or less equally distributed. As considerable large asymmetries of the distribution of power become visible, the likelihood of war grows significantly (Organski & Kugler 1980: 14). The BPT further implies that a country growing in power will most likely take advantage of its strength to assault its weaker opponents (Ibid).

Although these two theories of international relations are intended to explain conflict between states, the logic of BPT and PTT can provide predictions on the probability of conflict when ethnic groups – majority or minority – are involved in shifts in distribution (Toft 2007: 248). Toft (2007) argues that the crucial setting of experiencing war when there are relative shifts in ethnic groups, is by testing the power transition theory (PTT) and the balance of power theory (BPT). The power transition theory implies that differences in the distribution of international power are embedded in each member state's ability to make use of their material and human resources. The theory suggests that an imbalance in size and growth rates between members of the international system can be a source of war (Toft 2007: 20). The power transition theory is applied here for the logic of intrastate power shifts, holding that civil war is most likely to break out before or after there has been a demographic transition. In other words, before or after a minority has become a relative majority within a country. The reasoning would be the same as for the interstate system: ethnic groups growing in size and dissatisfied with the status quo, may seek to demolish the country's equilibrium "by seeking a change in the distribution of valued goods within the state commensurate with their new and growing power" (Toft 2007: 248). Current majorities that are in danger of becoming minorities would expect this behavior, and by fearing for their loss in relative power, they will further want to attack the rising minority group before they begin their claim to power.

A critic of the power transition theory is that it lacks any predictive power as to when in a transition process a civil war can break out. Neither can it tell us which of the two actors – minority and majority – are most likely to start a conflict. A conflict can break out before a shift in minority or majority, during a shift or as a result of a shift (Ibid).

Applying the logic of the balance of power theory to shifts in ethnic groups, it expects civil war to break out when ethnic group power is asymmetric. Asymmetry in power can lead

one group wanting to conquer the other during a dispute. If the asymmetry is very big, the balance of power theory estimates that the weakest power will not bring about requests that will enrage the stronger group. Moreover in reversed, the majority will most likely not feel threatened by the minority groups' claims and existence (Toft 2007: 249).

De Soysa et al. (1997), tested the power transition theory among nations and found considerable support for the theory. War turned out to be most likely when a transition had occurred or when two states were equal in power (De Soysa et al. 1997: 525). The transition theory gets strongest support when the COW data on national capabilities are used for analyzing all major power transitions. Therefore, support for the power transition theory relies on measurement of power and the analysis of major powers rather than all powers. (Ibid: 526).

Following the theories of transition and balance of power, ethnic groups and their population share represent the notion of "power" in this study. Can population shifts create higher chances of civil war? Following Toft (2007), two testable hypotheses are derived from PTT and BPT to see if whether the theories can predict civil war relative to population changes among ethnic groups:

H3: A transition of power involving the majority will increase the risk of war.

H4: Any transition will increase the risk of conflict.

3. Methods and Data

This analysis uses time series cross-sectional data (TSCS) on 147 countries during the 1960-2013 period in order to empirically test the hypothesis on the onset of civil war. I am using cross-sectional data because I measure data for each country over time on all variables. Measuring each unit equally gives a balanced dataset. Since the units are countries, measurements can extend over a relative long time interval because the changes are not so rapid that it needs to be measured within a shorter intermission (Christophersen 2013: 169).

The reason for choosing quantitative method in this analysis is because my research question is on a general basis, and I want to study widely how ethnic demographic change can affect the likelihood of civil war. A large-N statistical analysis will allow me to examine a large number of countries over a fairly long period of time. The quantitative method gives us the option of generalizing the findings to a larger sample by making explanatory or descriptive deductions on the basis of empirical information (King et al. 1994).

Using the Cline data, every transition - minority and majority - gets the value 1 if there has been any transition, and 0 if not in any year between the period 1960 and 2013. The data has been carefully studied for each year in each country to see if a transition has occurred and is coded a transition for that year.

The dataset yields a total of 12 majority transitions involving the majority group in a country, and 64 minority transitions that occurred among minorities. Since the numbers are fairly small, the data is presented in cross-tabulation tables together with four logit models, which allows me to control for other factors.[6] The first two logit models are tested using all types of onsets, whereas table 3 and 4 apply Fearon and Laitin's (2003) data on ethnic war onset.

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[6] A robustness test on population density has been made, but it did not make much of a difference to my basic results.

In trying to keep easy and clear results without too many cross correlations, I am controlling for three relevant variables; GDP per capita, population size and democracy. Achen (2005) suggests that models in statistical analyses should be simple in order not to complicate the interpretation of results. Since I am following Toft (2007), I also test the logic of the balance of power and power transition theory on demographic issues with the variables: weak majority, majority dominance and transitions of a majority or a minority.

The main independent variable derived from the Cline center is the composition of ethnic groups. The dependent variable – civil war onset - is obtained from Uppsala conflict database, whereas several control variables is from the World Bank data. These three datasets are merged together getting a period of observation from 1960 to 2013.

3.1 Why dynamic change?

The reason for choosing ethnic groups from the Cline center data is because it is the only dataset covering dynamic changes of ethnic groups. Several people have argued why ethnic difference should matter, and tested several measurements such as polarization, fractionalization and political exclusion on civil war. Most of those measures are time invariant - they do not measure change. By testing change over time, it can be possible to examine if ethnic demographic shifts matter for conflict. Since the CREG project is tracking the over-time development of social-, political-, and economic indicators with a set of time varying measures, data from this project seemed quite reasonable to use in this analysis. The Cline Centre describes its data project thus:

> Its objective is to fill an important void in the field of comparative politics by creating a set of time-varying measures that gauge the nature and depth of country-specific socio-cultural cleavages. It focuses on 165 of the largest countries in the world (all countries with a population above 500,000 in 2004) during the post-WWII era. The data-gathering phase has two main components. The first deals with the collection of population data for the principal ethnic and religious groups in a country; it uses these data to create a set of country-specific projections on the relative sizes of the different groups during the postwar era. The second component involves collecting survey data from country and regional experts on: (1) various physical, cultural and ascribed differences between the groups.[7]

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[7] http://www.clinecenter.illinois.edu/research/reporting/comp/

Looking at ethnic group change for each year, we have a more neutral view to the onset of conflict in the sense that we do not have data sets only including ethnic groups that are connected to conflict. Previous research on ethnicity have found connections between ethnic diversity and conflict using data from projects such as MAR and EPR, where researchers have already identified minority groups at risk. Nevertheless, this tactic of measuring ethnic diversity will lead to a selection bias because the authors only look at the groups they believe are politically relevant to the project (Marquandt & Herrera 2015: 690). All of these projects have tried to include all ethnic groups that are socially relevant in a territory, making the effort theoretically quite strained (Ibid: 692). Only including groups associated with conflict in such data sets will be in danger of finding spurious correlations between ethnicity and conflict. Using different measurements of ethnic groups may further lead to various lists of ethnic groups, making it hard to know if ethnicity is the relevant variable in the conflict (Ibid: 690). Nevertheless, all data sets face problems with selection. There are always potential groups not included in the used data set in which individuals can identify (Ibid: 692).

Moreover, a selection bias can create a problem for all data sets because these data sets measure ethnic groups who are excluded in a certain historic moment. Being Italian in the United States had some meaning 50 years ago, but it has not the same meaning today. Identifying as Asian today can be a category of Japanese, Chinese and other East-Asian groups in the United States. In contrast, the difference between Chinese and Japanese in California 1942, signified the dissimilarity between freedom for the Chinese and forced internment of Japanese Americans due to WWII. The Claims-based measures obtained from such data sets is that the ethnic groups studied are static and belongs to a certain moment of time. Another comment is that these measures are taking for granted that individuals only have one ethnic identity (Ibid: 694). An American with Irish blood may regard her identity as white. Yet, if the person also identifies with the Irish descent, a data set will miss out a

potential relevant category when only categorizing the person as white. This may be troublesome in societies where multiple ethnic identities are common.

Further, including all ethnic groups in a country may lead to an overestimation on the degree of ethnic diversity. A solution to this problem can be to focus on all politically relevant ethnic groups (PREGs). The EPR-ETH[8] (ethnic power relations) data set search for categories of politically relevant identity groups that are not class and sex based. For example, Texans in the United States can be considered a relevant ethnic group due to the powerful shared culture in the state (Ibid: 695-696). All of these datasets above have an issue of selection bias. The datasets measure ethnic groups at one point in time and assign this value to all years. This demonstrates that using the Cline center's dataset of ethnic groups is a much better strategy because it has data that varies over time.

3.2 Model specification

The results are interpreted in logistic regression models using one dependent variable and one main independent dummy variable. The independent variable is dummy coded to get a variable with only two values: if there has been a change or not. A logistic regression is used since the dependent variable is on the nominal or ordinal level with two values 0-1. In other words, what separates the logistic regression from the OLS regression depends on how the dependent variable is coded.

A logistic regression predicts the likelihood that something determined is to happen. In this case, the probability of a civil war onset as a cause of ethnic group change. The regression formula describes the expected or mean value of the dichotomous variable Y, given the value of the independent X (Skog 2013: 359). What we seek is an easy mathematical description of how the mean or share changes when the independent variable changes (Ibid: 353).

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[8] The EPR-ETH data set analyze the factors who cause an ethnic group to come into conflict with the government of a state (Cedermann et al. 2010: 99).

In addition to logit models, I use cross-tabulation with chi-square analysis in order to see in how many cases there was an increased risk of civil war in some of the variables. The primary concern of contingency tables is often to analyze the relationship between the dependent variable (Y) and one or several independent variables (X). The purpose is to explain a phenomenon, and is often used to analyze two or more categorical variables. Since I am interested in testing if there is a relationship between transitions and civil war, the cross-tabulation can show in how many instances a risk of war increased when a transition occurred. I also test the relationship on civil war with balance of power, strong and weak majority. Using cross-tabulation with chi-square, the strength in the correlation between the variables is described through the statistical measurement of the p-value. If the test is statistical significant, there is a relationship between the variables (Ringdal 2007: 271-277).

3.3 Limitations of the data

Some critique on the limitation of the dataset must be mentioned. The data from the Cline Center on the composition of religious and ethnic groups (CREG) have left out countries particularly relevant to this study such as India, which has a high amount of ethnic groups. Other missing countries with not enough data to make ethnic group estimates are Cameroon, France, Kosovo, Montenegro, Mozambique and Papua New Guinea. However, even though some important countries are not included, I am testing 147 countries altogether. This large number of countries should be representative of the world. While countries such as India are important, I argue that there is enough variance to examine with 147 countries in the sample.

Further, the data does not cover aspects such as a country's overall socio-cultural context, the social identities of the sociocultural groups in a country, the characteristics that separates the different groups from one another, how far away these groups are from one another based on these different characteristics, how these inter-group dissimilarities have changed over time, or how the constellation of these dissimilarities differs across countries at a given point

in time. Yet, the project work well in capturing the relative sizes of the socio-cultural groups in numerous countries, as well as how these groups have changed over time (CREG project 2012: 8-9).

3.4 Independent variable

The main independent variable is from the Cline Center for Democracy using data from the Composition of Religious and Ethnic groups (CREG) Project data. The CREG project[9] consists of ethnic groups in the 165 largest countries in the world using longitudinal data from 1945 to present day. The project includes all countries that were independent in 2004 with a population greater than 500,000 (CREG project 2012: 2).

Information on ethnic and religious group populations where found in three sources: the Britannica Book of the Year (BBOY), the CIA World Factbook (CIA-WF) and the World Almanac Book of facts (WABF). All three sources include data on the relative size of ethnic and religious groups at some point in their publication run, but the design and availability of the data varies over time and across sources. Since the data is gathered from several sources, there are some circumstances with more than a single reported value for one or more groups in a given year. Moreover, a set of preparatory projections using a multi-level mixed model with fixed group effects and random year effects was produced (Ibid: 4).

The BBOY is a collection of major events taking place in the previous year. The compendium provides valuable information on changing demography, governments and economies worldwide. It is organized by country and/or topic. The available information and the way it is reported, changed over time.

The CIA World Factbook holds an arrangement of country-specific data on demographics, economics, geography, and national defense. The assembling of the data

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[9] The CREG project is part of the Democracy's Societal Infrastructures and Development (SID) project by the Cline Center. The project was created as a long-term, institutionalized program of research focusing on 175 countries in the post-war era of WWII. Its primary focus is on institutions and the factors that can affect development, because institutions are compliant to human control (Cline Center 2014).

culminated with the publication of the classified document in the National Basic Intelligence Factbook (NBIF) in 1962. A declassified version was later published, and the CIA changed its name to the World Factbook. The World Almanac Factbook began publishing in 1868, and resembles the Britannica Book of the Year in that it contains information of the major events happening in the previous year (Ibid: 3).

The majority group size growth variable looks at the majority share growth for each year. Comparing Toft's data, this analysis has data with a year to year shift in ethnic composition whereas Toft (2007) uses the ethnic group data from Ellingen's (2000) Ethnic witches brew data and calculates change for each decade. Toft (2007) has calculated the change in the largest and second largest group by population percentage for a period of ten years. The calculated change is from 1945-1955, 1955-1965, 1965-1975, 1975-1985 and 1985 to 1994 (Toft 2007: 252). Further, the ethnic witches brew data only covers a period from 1946 to 1992 due to the limits in the data availability (Ellingsen 2000: 240). This study has data covering the period of 1960 to 2013 making the analysis more extensive with the latest changes in ethnic composition and at the same time more reliable when looking at shifts for each year. The negative change in the majority size is 1 if group size growth < 0. Positive change in majority size is 1 if group size growth > 0. The variable is said to be homogenous (1) if group estimate is larger than 80. 80 percent of the share or higher will lead to a power preponderance, and defines the ethnic group as dominant.

3.3 Dependent variable

The dependent variable in this analysis is the onset of civil war, taken from the Uppsala conflict database and the UCDP Monadic Conflict Onset and Incidence dataset from 1946 to 2014. The data is collected once every year, and is available for the previous year in July each year (Uppsala University 2014).[10]

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[10] The data is monadic, meaning that an observation is a country-year.

Civil war is defined as a competition between a rebel group and a government with a minimum of 25 battle-related deaths in one year as a result of the use of armed force (Gleditsch et al. 2002). Battle-related deaths take place in a "normal" warfare involving the armed forces of the state-based parties. This include traditional battlefield fighting, guerilla activities-, and all types of bombing such as villages, and military units. The military, state institutions or state members are usually the target, yet there is often considerable collateral damage where civilians are being killed or where non-selective bombings occur. All types of deaths – being military or civilian – suffering in these kind of situations, are included as battle-related deaths. Moderation is the common rule for counting battle-related deaths, and is based on the coder's examination of the specific conflict (Uppsala 2014).

Uppsala Conflict database defines an armed conflict as a contested incompatibility, which involves the government and/or territory between two groups where at least one of them is the government of a state, resulting in the minimum of 25 battle-related deaths in one calendar year with the use of armed force. The dataset include all armed conflicts of internal and internationalized internal type (Ibid). The dispute is located on the government side in the dispute.

Over a period of three decades, the Correlates of War project had the leading dataset on armed conflict. Most empirical analyses on civil war rely on the Correlates of war (COW) project. Because of the COW project's superiority, many use large N-studies applying the data without questioning what may limit their projects by only making small changes to the COW data (Sambanis 2004: 814). The COW project requires the minimum of 1,000 battle-related deaths in order for a conflict to be counted as a war. The Uppsala database operates with a lower limit of 25 battle-related deaths.

Gleditsch et al. (2002) argue that the relative high limit of 1,000 battle-related deaths have some disadvantages. Some conflicts have not enough number of deaths in a year even

though the total battle-related deaths in a conflict with a duration over several years could claim over a 1000 deaths. A statistical reason to have a smaller limit is functional because large wars are very rare. "There is simply not enough wars for statistical analyses over shorter periods of time" (Gleditsch et al. 2002: 617). Stretching a statistical analysis to a very long time period in order to get as much data as needed, may raise some unwanted situations. Are the theoretical clarifications satisfying for the entire period? Do chosen variables have the same meaning in 1850 as in 1985? By lowering the limit for inclusion, it will provide for more conflicts and therefore more flexibility.

Additionally, lowering the limit too much is not desirable because many small incidents are not very likely to have much impact. Yet, the number of 25 deaths in a year is high enough for the conflict to stand for a particular political event, although the international or domestic effect may vary (Ibid).

Comparing the conflict data to Toft (2007), the author uses a criterion of at least 1,000 battle deaths per year in the period from 1940 to 2000. Thus, this is expected since most studies apply conflict data with the minimum of 1,000 deaths during the conflict. In lack of knowing where she got her data, it has the similar criteria as the Uppsala conflict project.[11]

The variable got the value 1 if a civil war begins, and the value of 0 if not. Using a dichotomous variable in a logistic regression can avoid the problem with predictions outside the 0-1 interval. Further, I have added peace years in order to control for the last outbreak of civil war with 25 battle-related deaths.

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[11] Toft's civil war was coded if it met the following criteria:
  1. The center of interest in the war was control over which group that would take control over the government
  2. There were the minimum of two parties of organized contenders
  3. The state was one of the contenders
  4. A minimum of 1,000 battle-related deaths per year
  5. The stronger party had to have suffered at least 5 % of the total deaths, leaving the ratio of total deaths to 95 to 5 %.
  6. The start of the war took place within borders of an internationally recognized state.

3.5 Control variables

Including too many control variables in our models may lead to dismissed correlations and further making the analysis of the results more problematic (Achen 2005). Therefore, the analysis only apply three control variables that are often used in cross-national studies of civil war onset: population size, GDP per capita and regime type. Population size and GDP per capita is from the World Bank's World Development Indicators (WDI), whereas the regime type variable is obtained from the Polity2 data.

The World Development Indicators is the main World Bank collection of development indicators. The global development data includes estimations on the national, regional, and global level. The time series data covers the period of 1960 to 2015, and the update frequency is every quarter (World Bank 2016).

The POLITY IV data covers all independent states with a minimum of 500,000 of the total population in the period of 1800 to 2014. The Polity data only include information on the institutions of the central government. Excluded groups removed from the authority is regarded as separate segments of the population. The Polity Project collects data constantly as it observes regime changes in all major countries. The project provides for annual evaluations of the changes and characteristics of a regime (CSP 2014).

Following Toft (2007), I also test for balance of power, dominance, and inevitably possible transitions between majorities and minorities.

3.5.1 Population size

The World Development Indicators define population as the total population in a country counting all inhabitants irrespective of legal status of citizenship. An exception is refugees without a permanent position in the country of asylum, usually regarded as a citizen in their country of origin. The values are estimated to midyear (World Bank 2016).

Ever since Malthus (1978), it has been argued that a large population can increase a country's likelihood in experiencing conflict. Since that time, researchers have found a connection between large populations and conflict (Fearon & Laitin 2003: Bruckner 2010). Population itself do affect conflict and restrain on the state. Henderson (1993) argues that countries with a fast growing population have a higher chance of experiencing state repression. Following Toft (2006) and others, I will test to see if a larger population size increases the likelihood of civil conflict.

3.5.2 GDP per capita

GDP per capita is a continuous variable defined as the total sum of gross value of all the goods and services produced in a country during a year, minus the goods used in the production. The total sum is divided on the total population in the country divided by midyear population. The data is in the current US dollar (World Bank 2016).

Following Fearon (2003), financing rebels is one deciding factor of the viability of insurgency. In countries where there are bad economic options, recruiting of young boys to join guerilla groups is easier. Per capita income is therefore important because it gives power to the state administrative and more ability to a country's military and police. A higher per capita income in a country should decrease the potential chance of civil war (Fearon & Laitin 2003: 76, 80).

Population size and per capita income have both been log transformed in order to avoid the problem with skewness and kurtosis. Log transformation is utilized to make a more normal distribution so as to conform with regression assumptions about normality (Christophersen 2013: 80).

3.5.3 Regime type

Many people have argued that the possibilities for conflict in a country depend rather highly on the political system. Several authors have tested the relationship between regime type and

conflict, finding that stable political regimes have a lesser risk of experiencing conflict than regimes in transitional periods, which can lead to countries becoming more conflict prone and more hostile (Mansfield & Snyder 1995: Ellingsen 2000). Mansfield and Snyder (1995), found in their analysis that democratizing states have a greater probability to fight wars than old democracies and firm autocracies. Regimes who are in a transition towards an autocracy or regimes who go back to an autocratic regime after failing the democratization process, have a greater chance in experiencing conflict than states with a firm, established regime (Mansfield & Snyder 1995: 6).

Additionally, small groups may fear exclusion if the political loyalty in a democratic country is based on ethnicity and where one ethnic group dominate. The motivation to take advantage of the minority increases with the size of the group – the larger it is the greater incentive to remove it (Collier & Hoeffler 2004: 571). If one group is permanently excluded from the party system, use of violence may seem as the only option for the group leaving the country with an unstable democracy (Bardhan 1997: 1390). In accordance with Toft (2007) and others, I test for regime type to see if a high democracy or autocratic score decreases the likelihood of a civil war onset since an unstable regime often is associated with conflict.

The variable is dummy coded into democracy and autocracy. The scale goes originally from 10, full autocratic, to 10, fully democratic. In this analysis, democracy gets the value 1 if the polity2 score is larger than 6. Autocracy gets the value 1 if the polity2 score is smaller than 6. The reference category is the countries in between – anocracy - which lies somewhere across minus 6 and 6 on the polity2 scale.

All variables has been lagged by one year (t_{-1}) in order to control for autocorrelation, potentially omitted variables and reduce trends (Christophersen 2013: 166-167). The lagged variable also controls for factors associated with ongoing war.

3.4.5 Testing Toft's power and peace theories

Since this analysis is addressing whether or not shifts in the relative proportions of ethnic groups can affect the likelihood of civil war, it was necessary to find the transitions in the ethnic groups' data from the Cline Center. In order to this, I have manually gone through each country in the dataset from 1945 to 2013 and given the code 1 for the current majority and 1 for the largest minority in the country. Any transitions that year, was coded as 1. Total findings of all transitions were 76, with 12 majority transitions and 64 minority transitions.

Following Toft, I test to see if the logic of the power transition theory and the balance of power theory can be applied to predict the likelihood of civil war if the state is experiencing power shifts in the form of ethnic groups. Testing for the balance of power theory, I have measured the size of the second largest group. Creating a variable for the balance of power, it is coded as 1 (strongbalance) if groupestimate is larger than 50 and 0 if it is smaller than 80. A weak majority is coded as 1 if the majority group size is 50 and smaller, and 0 if not.

3.5.5 Fearon and Laitin's ethnic war onset

Testing for Fearon and Laitin's ethnic war onset, they use criteria resembling other data set such as the Correlates of War (COW) project, making their own list from these sources and others for getting data from 1945 to 1999. The data differs from others in the sense that they have included anticolonial wars. Violent civil conflicts meet the following criteria if: (1) The battle involved agents of a state and nonstate groups willing to take control over the government, extract power in an area, or use violence in order to change the state's policies. (2) It killed at least 1000 during the dispute. (3) A minimum of 100 people were killed on both sides.[12]

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[12] To cope with coding issues, Fearon and Laitin use following criteria: The start year of the war is the first year when 100 people are killed or a violent incidence followed by a succession of actions meeting the original criteria. The sample includes 79 wars.

4. Results and analysis

This section presents an empirical evaluation of dynamic change and the likelihood of civil war. The results are presented in two sets. First, five cross-tabulations are presented because the total number of transitions are so small with only 76 observed transitions. Further, it provides information of the relationship between the variables (Ringdal 2007: 273).

In addition to testing the two transition types, the cross-tabulations also test for strong balance, strong majority and weak majority in order to display the total number of correlation with civil war.

Secondly, four regression models are introduced testing all four hypotheses. I test for the likelihood of a civil war onset in connection to dynamic change and transitions between ethnic groups. The two first tables are testing for all civil war onset, whereas the two last use Fearon and Laitin's (2003) ethnic war data testing to see whether the results are significantly different than using all types of onset.

4.1 Cross-tabulations (table 1)

Majority transitions*Civil war onset

Onset	No Transition	Transition	Total
0	8,202	11	8,213
1	271	1	272
Total	8,473	12	8,485

Pearson chi2(1) = 1.0183   Pr = 0.313

Looking at the cross-tabulation of majority transitions, the table shows that out of the 12 transitions in the period from 1960 to 2012, 1 transition is associated with conflict (see Appendix). The chi square test however is not significant.

Minority transitions*Civil war onset

Onset	No Transition	Transition	Total
0	8,15	63	8,213
1	271	1	272
Total	8,421	64	8,485

Pearson chi2(1) = 0.5611   Pr = 0.454

As for the next table, out of 64 minority transitions, 1 was connected to conflict. However, this transition happened in 1957, whereas the dataset in this study goes from 1960 to 2013 and starts to cover transitions in the year of 1960. Therefore, it is arguable that this transition is not valid (see Appendix). The results are again not statistically significant. The cross-tabs of these transitions demonstrate that, transitions between majorities and minorities have a relative weak explanatory power on the likelihood of civil war, and seem to be statistically insignificant overall. This is in line with what Toft (2007) finds in her analysis. It is therefore fair to argue that transitions cannot explain the risk of civil war.

Strong balance*Civil war onset

Onset	0	1	Total
0	5,825	2,388	8,213
1	176	96	272
Total	6,001	2,484	8,485

Pearson chi2(1) = 4.9168   Pr = 0.027

Looking more closely at the variable of strong power balance, a total of 272 country years, 96 of them were linked to civil war. The result is theoretically in line with the preponderance of power theory, which suggests that peace is more likely when there is little similarity in power. These results support theories suggesting that polarization, or two large ethnic groups are

more dangerous for peace. A strong balance occurs if group estimate is larger than 50 but smaller than 70 %, meaning that a majority is slim.

Strong majority*Civil war onset

Onset	0	1	Total
0	4,661	3,552	8,213
1	206	66	272
Total	4,867	3,618	8,485

Pearson chi2(1) = 38.7935   Pr = 0.000

In the total of 272 country years, 66 incidents with a strong majority were linked to civil war. This result is highly significant suggesting that a strong majority can increase the risk of civil war. However, in 206 cases, there was no connection to civil war suggesting that a dominant majority is mostly associated with peace. This result supports the finding of Collier and Hoeffler suggesting that a country characterized by ethnic dominance has almost a doubled risk of experiencing conflict (Collier & Hoeffler 2004: 581).

Weak majority*Civil war onset

Onset	0	1	Total
0	5,94	2,273	8,213
1	162	110	272
Total	6,102	2,383	8,485

Pearson chi2(1) = 21.2425   Pr = 0.000

A weak majority shows a clear sign of increasing the risk of civil war with 110 cases of conflict. It is also significant, signifying that weak majorities are at greater risk of experiencing civil war. The logic of the balance of power theory can be applied here, arguing that a symmetry of ethnic group power leads to civil war. Since the theory predicts peace only when asymmetry is too high or power is relatively balanced, conflict is likely to increase when the dominant majority has a lower share of power. The losing majority may fear its loss by attacking the strongest minority before it strives for its own relative gain in power (Toft 2007: Organski & Kugler 1980). The cross tabulations, though revealing, are limited since a full model of conflict controlling for important factors such as income, must be examined.

4.2 Logit models

The first two logit models use the onset of civil war data from the Uppsala conflict project, whereas the two last models test Fearon and Laitin's (2003) ethnic civil war onset data.

Table 2. Ethnic group demographic power configurations and the onset of civil war, 1960-2013

	(1)	(2)	(3)
	ONSET	ONSET	ONSET
Strong balance	0.097		
	(0.179)		
Majority Dominance		-0.539**	
		(0.211)	
Weak Majority			0.365*
			(0.189)
log of income per capita t-1	-0.188**	-0.166**	-0.139
	(0.090)	(0.085)	(0.089)
log of population size t-1	0.257***	0.275***	0.268***
	(0.069)	(0.061)	(0.064)
Democracy dummy t-1	-0.669**	-0.637**	-0.659**
	(0.304)	(0.299)	(0.302)
Autocracy dummy t-1	-0.358*	-0.338	-0.367*
	(0.216)	(0.206)	(0.212)
Peace years	0.183***	0.201***	0.199***
	(0.069)	(0.068)	(0.071)
Constant	-5.948***	-6.308***	-6.652***
	(1.212)	(1.115)	(1.210)
Countries	147	147	147
Observations	6,030	6,030	6,030

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

5. natural cubic splines estimated with peace years

Looking at column 1 of table 2, it shows that the balance of power is not significant at all when control variables are added in a multivariate model. The variable is positive, but it has no effect on conflict.

Moving to the next variable, the majority dominance is negative and quite significant statistically at the 5 % level. The variable indicates that when a majority dominates in a country, the chances of experiencing civil war is less likely. I have taken the exponential effect of the variable to compute the odds ratio, which suggests that when a majority dominates the risk of civil war is reduced by 53 % of the baseline risk. This result is interesting because it find the opposite effect of that reported by several others (Collier & Hoeffler 2004: 581). Dominance defined as ethnic homogeneity (75 % or more of the population) reduces the risk of a conflict onset.

Paul Collier (2001) tested the effect of ethnic diversity in an economically framework, arguing that societies with a majority dominance are generally more likely to have a worse economic performance compared to ethnically diverse countries. Findings show that the risk of civil war increases in societies with a dominant majority whereas fractionalization makes societies safer (Collier 2001: 128). These findings contradict their argument that societies with ethnic and religious diversity are safer than countries characterized by homogeneity as long as they avoid dominance, and that civil war increases with a dominant majority.

Even though Ellingsen (2000) does not study changes in ethnic composition, we can say that our results are similar to her findings: in countries where the size of the dominant group equals or is smaller than 80 % of the population, the risk of experiencing conflict is higher than in countries where the majority is higher than 80 % (Ellingsen 2000: 241). This argument, as well as this paper's findings is in line with hypothesis 1: If an ethnic majority is losing its population share, the risk of conflict is likely to increase. This hypothesis is also

theoretically in line with Horowitz' (2000) argument that there is less violence in very diverse or homogenous societies (Horowitz 2000: 135-139).

The weak majority variable is positive, but quite weak at the 10 % level. This means that weak majorities are in greater risk of experiencing civil war. The log odds show that the risk of experiencing civil war with a weak majority is 63.5 %. This finding supports the theoretical logic of the power transition theory: a weak majority have a higher risk of experiencing conflict because the largest minority increasing in size will seek to get a new position when the majority is losing its share. This claim may create conflict when the weak majority sees the minority as a threat and the minority asserts its rights more forcefully then the risk of conflict may increase (Toft 2007: 248).

The control variables are all in line with previous findings. Income per capita (logged) has a negative effect on civil war. The higher the living standards in a country, the less likelihood it is for experiencing conflict. It is significant at the 5 % level. This finding is similar to Fearon & Laitin's (2003): GDP per capita does have a negative effect on the onset of civil war showing that high levels of economic inequality create higher risks of violent conflict (Fearon & Laitin 2003: 75). Ethnic groups with very different economic positions tend to fight more often than countries with groups that have a more mediocre wealth distribution (Cederman et al. 2011: 478). Additionally, Collier and Hoeffler (2004) find that low earnings might matter for conflict because it causes grievances towards the government (Collier & Hoeffler 2004: 588). A richer nation will have a greater degree of armed conflict because the economic circumstances are so poor that life as a rebel becomes attractive to young men (Fearon & Laitin 2003: 88). Secondary education enrollment for young men has further a considerable effect on reducing the risk of conflict (Collier & Hoeffler 2004: 588).

Population size (logged) has a positive effect on civil war, and is highly significant on the 1 % level. As the population size increases in a country, the higher becomes the risk of

experiencing conflict. Following Fearon & Laitin (2003), one of the conditions that is a good predictor of which countries are at risk of experiencing civil war, is countries with large populations. A large population has difficulty in controlling what is going on at the local level, which may further lead to an increase in rebels recruited by insurgents. This also supports Bruckner (2010), who finds that a larger population size makes African states more vulnerable to violent conflict, whereas smaller sizes in population lead to more stability for the state (Bruckner 2010: 547). This result supports those who argue that state capacity matters.

Both democracy and autocracy have a negative effect on the onset of civil war, meaning that a country with a firm and stable regime has a smaller chance in experiencing conflict. The states that are in a transitional process, anocracy, are the ones in danger of getting involved in civil war. This result is in line with Hegre et al. (2001) who found that states which find themselves in a political transition are most prone to civil war. This also include states, which already have gone through a regime change and had time to stabilize (Hegre et al. 2001: 33).

Total number of peace years since the last conflict is positive and strongly significant on the 1 % level. The more years since there has been a conflict, the higher is the risks for a country to experience a new onset of conflict.

Table 3. The onset of civil war with 25 battle related deaths in a single year and demographic transitions between a majority group and transitions among minority groups, 1960-2013

	(1) ONSET	(2) ONSET	(3) ONSET	(4) ONSET
Majority share change t-1		-0.024		
		(0.015)		
Majority Transition t-1			1.132	
			(0.879)	
Minority transitions t-1				1.089**
				(0.526)
log of income per capita t-1	-0.180**	-0.189**	-0.180**	-0.180**
	(0.088)	(0.089)	(0.088)	(0.088)
log of populations size t-1	0.256***	0.263***	0.257***	0.256***
	(0.069)	(0.071)	(0.069)	(0.069)
Democracy dummy t-1	-0.672**	-0.628**	-0.673**	-0.686**
	(0.304)	(0.306)	(0.304)	(0.306)
Autocracy dummy t-1	-0.364*	-0.335	-0.364*	-0.374*
	(0.215)	(0.216)	(0.215)	(0.219)
Peace years	0.184***	0.199***	0.186***	0.181***
	(0.070)	(0.071)	(0.069)	(0.070)
_spline1	0.005***	0.005***	0.005***	0.005***
	(0.002)	(0.002)	(0.002)	(0.002)
_spline2	-0.002***	-0.002***	-0.002***	-0.002***
	(0.001)	(0.001)	(0.001)	(0.001)
_spline3	0.000**	0.000**	0.000**	0.000**
	(0.000)	(0.000)	(0.000)	(0.000)
Constant	-5.963***	-6.080***	-5.988***	-5.967***
	(1.202)	(1.243)	(1.202)	(1.215)
Countries	147	146	147	147
Observations	6,030	5,989	6,030	6,030

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
3 natural cubic splines included with peace years

In table 3, I look directly at transitions between minority and majority groups, testing to see if they lead to civil war. Looking at column 2, the change in the majority share is negative. The greater the loss of a majority share of the total population, the higher the risk of conflict. However, the variable is not significant. Since I am addressing demographic change as a means to conflict, I have also looked at the positive changes and the effects of the negative changes in separate models, but neither was significant (results not shown). The proposition that a majority's shift in power is destabilizing is not supported in the data.

Lagged by one year, column 2 shows that majority transitions or the transitions in demographic size of a minority by a majority's share of power shows no effect. Therefore, we cannot say anything about the relationship between a majority transition and civil war in this model. On the other hand, minority transitions are positive on civil war onset and significant at the 5 % level, suggesting that the effect is quite strong. This finding is in line with the power transition theory: conflict is likely to break out before or after there has been a demographic transition. However, before lagging the model with one year, minority transitions are not significant. The log odds of experiencing conflict after a minority transition is a very small amount at -8.9 %. The risk of conflict is therefore quite small even when a transition has occurred. The findings support hypothesis 4: any transition increases the risk of conflict, but the substantive effect is small.

Toft (2007) also implies that the relationship between transitions and civil war seems to be generally statistically insignificant. My data is very similar to what Toft has found with her 77 transitions, which is supported by my data which shows a total of 76 transitions. How did Toft get 77 transitions as opposed to 76 for me? It may seem as though Toft's transitions looks at transitions between all types of ethnic groups, and not just majorities and minorities. I argue that there is not much of a difference between the data from the Cline center and Ellingsen's (2000) Witches Ethnic Brew data. Thus, Toft (2007) looks at change for each

decade, whereas this analysis is measuring data for each year, which increases accuracy. However, the remarkable similarity of the number of transitions using differently defined data is noteworthy.

Again, income per capita (logged) shows a negative effect on civil war onset at the 5 % level. This finding is the same as in table 2 indicating that poor countries are at a greater risk of experiencing conflict compared to countries with higher incomes. Also lagged by one year, population size (logged) shows a positive and strong effect at the risk of civil war at the 1 % level. A larger population size increases the risk of conflict.

Both autocracy and democracy variables lagged by one year are negative and significant. Democracy is a stronger indicator than autocracy at the 5 % level, showing that strong democracies are at low risk of getting involved in civil war. Autocracy is significant too, but the effect is weaker.

The next two tables use Fearon and Laitin's (2003) ethnic war onset to see if the results from earlier tests are more robust but now only looking at ethnic war onset. Note that their data is only to 1999 and is generated for conflicts where 1000 battle related deaths have occurred.

Table 4 Demographic transitions between a majority group and transitions among minority groups using Fearon and Laitin's ethnic war onset data

	(1) Ethnic onset	(2) Ethnic onset	(3) Ethnic onset	(4) Ethnic onset
Majority share growth t-1		-0.953**		
		(0.459)		
Majority transition t-1			1.996*	
			(1.169)	
Minority transitions t-1				1.347
				(1.089)
log of income per capita t-1	-0.417***	-0.515***	-0.418***	-0.414***
	(0.153)	(0.157)	(0.154)	(0.153)
log of population size t-1	0.310***	0.325***	0.312***	0.312***
	(0.101)	(0.097)	(0.101)	(0.101)
Democracy dummy t-1	-1.378**	-1.241**	-1.356**	-1.412**
	(0.552)	(0.527)	(0.554)	(0.558)
Autocracy dummy t-1	-0.684**	-0.756**	-0.674**	-0.678**
	(0.308)	(0.325)	(0.306)	(0.309)
ethpeaceyrs	-0.061	0.045	-0.061	-0.067
	(0.139)	(0.160)	(0.139)	(0.140)
_spline1	-0.000	0.001	-0.000	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)
_spline2	-0.000	-0.001	-0.000	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)
_spline3	0.000	0.001	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Constant	-5.585***	-5.843***	-5.637***	-5.624***
	(2.056)	(2.115)	(2.074)	(2.072)
Countries	134	134	134	134
Observations	3,781	3,743	3,781	3,781

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
3 natural cubic splines included with peace years

Column 1 shows results of the baseline model. The results are quite similar as for all civil war with 25 battle-related deaths. Looking at column 2, the majority share growth is clearly significant at the 5 % level. A negative growth in the majority share may increase the risk of conflict, indicating that the higher the growth in the majority share, the less is the risk of ethnic conflict. This result was not the same for civil war. Taking the log odds for the variable, it show that the odds of experiencing civil war with a majority growing in size, is 62 % less likely. Compared to table 2 and the majority dominance variable, the results are quite similar whereas both variables are significant at the 5 % level and get high numbers when taking the exponential effect of the coefficient. This finding suggest that a growing majority and a dominant majority is associated with less conflict when testing for all types of civil war onset and ethnic civil war onset.

Moving on to column 3, majority transitions are positive and slightly significant on the 10 % level indicating that there is a greater risk of conflict when there has been a majority transition. Taking the exponential effect of the variable, the odds of experiencing conflict after a transition is 99.6 %. Comparing this table with table 3, this is a better finding, but since the odds ratio is so high with such few transitions (12), there is a possibility that there is an extreme outlier: one country experiencing ethnic war after a majority transition.

Minority transitions in column 4 is not significant in contrast to table 2 where it is significant at the 5 % level. This is maybe due to the higher battle-related deaths threshold used by Fearon and Laitin (2003). These results may suggest that demographic shifts might in fact be better predictions of ethnic war.

Table 5 Ethnic group demographic power configurations using Fearon and Laitin's ethnic war onset data

	(1) Ethnic onset	(2) Ethnic onset	(3) Ethnic onset
Strong balance t-1	-0.351		
	(0.420)		
Majority Dominance		-0.127	
		(0.405)	
Weak Majority			0.364
			(0.342)
log of income per capita t-1	-0.391**	-0.417***	-0.387**
	(0.155)	(0.154)	(0.155)
log of population size t-1	0.310***	0.318***	0.333***
	(0.101)	(0.102)	(0.100)
Democracy dummy t-1	-1.409**	-1.354**	-1.337**
	(0.575)	(0.553)	(0.554)
Autocracy dummy t-1	-0.714**	-0.675**	-0.690**
	(0.310)	(0.303)	(0.304)
ethpeaceyrs	-0.059	-0.062	-0.060
	(0.140)	(0.138)	(0.139)
_spline1	0.000	-0.000	-0.000
	(0.001)	(0.001)	(0.001)
_spline2	-0.000	-0.000	-0.000
	(0.001)	(0.001)	(0.001)
_spline3	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
Constant	-5.669***	-5.687***	-6.361***
	(1.995)	(2.086)	(2.228)
Countries	134	134	134
Observations	3,781	3,781	3,781

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

3 natural cubic splines estimated with peace years

Table 5 is testing the demographic power configurations with Fearon and Laitin's (2003) ethnic war onset data. Column 1 shows that the variable for strong balance is negative but is not significant. None of these configurations shows statistical significance. These results are similar to Fearon and Laitin's (2003) own results using different data.

None of these three variables is significant, so using Fearon and Laitin's (2003) data indicates that these factors are not important for starting an ethnic war. The conditions that seem to matter in ethnic conflict are what most people find: low economic growth, large populations, and regimes in transitions lacking a firm and stable government. These variables are quite significant, suggesting that they are the best factors in explaining ethnic conflict. The strongest outcome is the population variable with a significant level of 1 %. Further, it seems that the dependent variable in this analysis captures what most people have found. For that reason, these results theoretically support the work of Gilley (2004) and Mueller (2000): violence itself may determine conflict as being ethnic rather than ethnicity itself.

Do shifts in the relative share of ethnic groups influence the likelihood that conflict between groups will increase into civil war? Do demographic shifts, transitions ending in a majority to a minority and vice versa, lead to civil war? Looking at the summary assessment, two out of four hypotheses are supported: the risk of conflict is likely to increase when there is a majority that is losing its share, and when any transition occurs.

Table 6

Summary evaluation of the hypotheses

	Supported	Not Supported
Hypothesis 1: If an ethnic majority group is losing its population share, the risk of conflict is likely to increase.	X	
Hypothesis 2: If the size of the second largest group is growing in size, the risk of conflict is likely.		X
Hypothesis 3: A transition of power involving the majority will increase the risk of war.		X
Hypothesis 4: Any transition will increase the risk of conflict	X	

These results suggest that transitions are not an essential indicator for explaining civil war, and dynamic changes in ethnic composition over time do not seem to get sufficiently better results than previous research with time invariant data. As observed above, the best factors in explaining the likelihood of civil war are large populations and a poor economy. Yet, how ethnic groups in a country perceive power, and how the power is distributed, is still an important matter. Even though demographic shifts in this analysis got weak support, shifts in political power may still matter. Following Toft (2007), I argue that what is most important is how the actors apprehend the consequences of a potential shift in power.

6. Conclusions

In an era of globalization, many have argued that ethnic and religious conflict have – more so than ideologies – become a dominating factor in the world of politics. For the supporters of globalization, the cure for dismissing ethnic violence around the world is to increase economic wealth and strengthen democracy. However, a global spread of these two factors may worsen and trigger ethnic violence and hatred among countries in the non-Western world, as some claim (Chua 2004: 9). Especially in countries with low economic development, a potential outbreak of an ethnic conflict is quite likely. Institutional failures may raise the risk of rebellion with ethnic overtones. However, scholars in the various disciplines studying this subject disagree exactly how ethnicity matters. Many look at the configurations of groups and disagree whether it is diversity or polarization that matters. Others argue that it is ethnic discrimination. This study has looked specifically at ethnic group change over time, focusing on power transitions and other configurations. The results taken together suggest that ethnic demographic shifts have only very slight effects on the risk of conflict and that of all the measures, those growing greater balance between groups, or polarization, seems to have the most positive effect on increasing the risk of civil war.

Why should we continue to study ethnic conflict? In an era of globalization, ethnicity and cultural factors has replaced ideology as a driver of political conflict. Many argue that ethnic diversity is the underlying problem with development because it does not allow better institutions to be built (Easterly 2006). Focusing on ethnic diversity, several have emphasized that conflict is likely to increase in highly diverse societies or in countries where there are two equally sized large groups. Although previous measurements on ethnic diversity have found interesting results, they all have one thing in common: They do not look at the dynamics of ethnic group change. Following Toft (2007), this thesis have tried to contribute to the literature of ethnic conflict by looking at dynamic changes and power shifts in and between

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ethnic group configurations. In order to do this, I have used data from the Cline Center, which is the only dataset available that looks at ethnic group change for each year over time. I have tested for both changes and transitions as a potential risk of civil war. Changes as in ethnic group configurations and demographic shifts that ends in a transition of a majority by a minority or vice versa. Since I am following Toft (2007), I have also tested for the logic of the power transition theory and the balance of theory explaining war likelihood.

Overall, findings show that there is a statistically insignificant relationship between demographic change and the likelihood of civil war. Additionally, the decrease and increase in a group's share has also a weak connection to conflict. I suggest that there is no significant difference between using a timeinvariant dataset and a dynamic one, because the results compared to Toft's (2007) article is quite similar. Her total transitions show 77 with 7 transitions correlating with war. This paper finds 76 with only 2 transitions correlating with war. The relationship between demographic transitions and civil has very little explanatory effect. Looking at dynamic change, the main finding show that in countries where the dominant majority has a relative share of 80 % or higher, the risk of experiencing civil war is less likely. A growing share in the majority makes a country less conflict prone. On the other side, a weak majority have a positive effect on civil war, signaling that when a majority is losing its share, the risk of conflict is likely to increase.

To see whether demographic changes and transitions could be stronger linked to ethnic civil war, I tested for Fearon and Laitin's (2003) ethnic war onset dataset with the same variables used on all types of civil wars getting a positive significant effect on majority transitions. However, the effect was fairly weak. Overall, using ethnic civil war data did not get outstanding results compared to testing ethnicity on all types of civil war. The conditions that seem to matter in ethnic conflict are what most people find: low economic growth, large

populations, and regimes in transitions lacking a firm and stable government. The most robust explanations of civil war onset in this thesis turned out to be those three factors.

Since there are no robust findings between ethnic demographic change and civil war onset in this thesis, the conclusion of this analysis support the words of Mueller (1980) and Gilley (2004) suggesting that violence may make a conflict ethnic rather than ethnicity itself mattering because many ethnic groups do live peacefully in many different places. The criteria for calling something ethnic should be a strict rule to follow for everyone that studies the comprehensive subject of ethnicity and ethnic conflict. In the end, what is most evident to me is that we should rather look at political processes than only ethnicity as a possible indicator to conflict. Ethnicity as a factor is highly prioritized in the conflict literature, but what most people find when testing the relationship is that other factors are more robustly linked to conflict. A suggestion is to look beyond the issue of ethnicity and rather focus on the political process in a country and future research might look at conditional effects between demographic shifts and other factors, such as regime type and income. Changing governmental policies or exclusion of a certain group from state power can be triggers for conflict, creating discrimination thus making individuals more aware of their identity. The grievances caused by repression may develop into a resistance towards the state, which in some cases may lead to mobilization. Yet, every country is different, and there are often many underlying factors that may mediate the steps from grievances to conflict.

7. Literature

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8. Appendix

Table A1: Summary statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Onset of civil war (UCDP)	5987	0,0307333	0,1726085	0	1
Ethnic war onset Fearon and Laitin	3752	0,0119936	0,1088711	0	1
Transition of a majority	5987	0,0018373	0,0428281	0	1
Transition of a minority	5987	0,0078503	0,0882611	0	1
Strong balance	5987	0,3064974	0,4610773	0	1
Strong majority	5987	0,3781527	0,4849665	0	1
Weak majority	5987	0,3153499	0,4646939	0	1
Majority share growth	5987	-0,063041	0,5932662	-29,60175	2,531461
GDP per capita (logged)	5984	7,765654	1,588009	4,242465	11,3119
Population size (logged)	5987	16,02693	1,462043	12,67188	21,02882
Population density (logged)	5948	3,740152	1,441117	-0,1544157	8,940731
Democracy	5983	0,3986295	0,4896571	0	1
Autocracy	5983	0,2609059	0,4391654	0	1
Peace years	5987	19,82378	18,18509	0	67

Table A2:

List over majority transitions and civil war onset

Country	year	onset
South Africa	1951	0
Ecuador	1966	0
Philippines	1969	1
Chad	1972	0
Guatemala	1974	0
Fiji	1983	0
Trinidag and Tobago	1993	0
Nigeria	1993	0
Central African Republic	1995	0
Sierra Leone	1997	0
United Arab Emirates	2005	0

| Philippines | 2012 | 0 |

Table A3: List over

minority transitions and civil war onset

Country	year	onset
Cuba	1946	0
Mongolia	1946	0
Mongolia	1949	0
Iran	1950	0
Mongolia	1953	0
Oman	1957	1
Mongolia	1958	0
Sweden	1959	0
Paraguay	1961	0
Mongolia	1962	0
Switzerland	1963	0
Hungary	1963	0
Somalia	1964	0
Nigeria	1965	0
Gabon	1965	0
Austria	1969	0
Republic of Vietnam	1969	0
Cote d'Ivoire	1969	0
Australia	1970	0
Swaziland	1972	0
Bahrain	1973	0
Malawi	1974	0
Republic of Vietnam	1975	0
Democratic Republic of Congo	1976	0
United Arab Emirates	1977	0
Costa Rica	1978	0
Burkina Faso	1978	0
Portugal	1980	0
Netherlands	1981	0
Senegal	1981	0
German Federal Republic	1982	0
Togo	1984	0
Tunisia	1985	0
Bangladesh	1986	0
Hungary	1986	0
Philippines	1990	0

Cote d'Ivoire	1990	0
Zambia	1992	0
Poland	1995	0
Namibia	1995	0
Pakistan	1995	0
Turkmenistan	1995	0
Greece	1998	0
Liberia	1999	0
South Africa	1999	0
Guinea-Bissau	1999	0
Qatar	1999	0
Uzbekistan	2001	0
Azerbaijan	2001	0
Azerbaijan	2002	0
Armenia	2003	0
El Salvador	2003	0
United States of America	2003	0
Jordan	2004	0
Kyrgyz Republic	2004	0
Austria	2005	0
Indonesia	2006	0
Colombia	2006	0
Georgia	2007	0
Benin	2007	0
United Arab Emirates	2009	0
China	2009	0
Lithuania	2009	0
Uruguay	2011	0
Gabon	2011	0