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Ethnic groups in the former Soviet Union space

Diploma thesis

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Abstrakt

Tato diplomová práce se snaží identifikovat faktory, které vedou etnické skupiny k použití násilí jakožto odpovědi na své potřeby a životní podmínky. Výzkum je zaměřen na etnické menšiny žijící v nástupnických státech Sovětského Svazu v období 1994 až 2006. Základní předpoklady této práce vycházejí z kvalitativních i kvantitativních studií o příčinách etnických konfliktů. Důraz je kladen především na výsledky výzkumů zabývajících se chováním etnických skupin v případě diskriminačního jednání ze strany státu. Nejsou však opomenuty ani významné charakteristiky samotných etnických skupin. Teoretická diskuze v prvních dvou kapitolách ukázala důležitost tří faktorů ovlivňujících vznik etnických konfliktů na území bývalého Sovětského svazu – diskriminace, odlišnost a síla identity etnických skupin. Pro testování důležitosti těchto faktorů je použito několik statistických metod – deskriptivní statistika, korelace a logistická regrese. Výsledky statistických výpočtů prokázaly, že silná identita a diskriminace etnických skupin zvyšují pravděpodobnost vzniku konfliktu.

Abstract

The topic of this diploma thesis is ethnic groups in the space of the former Soviet Union in the time period 1994-2006 and their involvement in ethnic conflicts. The aim of this thesis is to identify key parameters driving these ethnic groups towards armed conflict as a response to their needs, interests and living conditions. Key assumptions of this thesis are derived from quantitative as well as qualitative studies. Important characteristics of ethnic groups are also included in the analysis of possible causes of ethnic conflicts. The theoretical discussion shows three main factors which can make ethnic groups more prone to conflict: permanent exclusion, strong identity and lastly dissimilarity of an ethnic group. Influence of these factors is tested using descriptive statistics, odds ratio, correlation and logistic regression. Statistical results shows that strong identity as well as discrimination of ethnic groups increase the probability of ethnic conflicts.

Klíčová slova

Etnické skupiny, etnický konflikt, nástupnické státy Sovětského Svazu, instrumentalismus, pravděpodobnost konfliktů, logistická regrese

Keywords

Ethnic groups, ethnic conflict, successor states of the Soviet Union, instrumentalism, probability of conflicts, logistic regression

I declare that I have written this thesis on my own and that I have dutifully indicated all works of other authors that I have cited. I declare that this thesis has not been used for earning of another master's degree. I agree that the work is made available for educational and research purposes.

In Prague 21 May 2012

Kateřina Tkáčová

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As a PR worker of a community centre for migrants, I have been witnessing many personal tragedies of people coming to the Czech Republic from states suffering from ethnic conflicts. This experience stands behind my topic of this thesis. I am grateful to all clients of the community centre who were willing to share their personal stories with me.

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1 Introduction

The topic of this diploma thesis is ethnic groups in the space of the former Soviet Union in the time period 1994-2006 and their involvement in ethnic conflicts. The aim of this thesis is to identify key parameters driving these ethnic groups towards armed conflict as a response to their needs, interests and living conditions.

Ethnic groups can be defined as 'a type of cultural collectivity, one that emphasizes the role of myths of descent and historical memories, and that is recognized by one or more cultural differences like religion, customs, language, or institutions.' (Smith 1993, p. 20). Thus, members of an ethnic groups differ from other people by collective name, common culture as well as shared values. Moreover, relatively strong ties are often caused by their belief in common ancestry (Smith 1993, p. 21). It means that ethnic groups, whose members have very strong perceptions of shared identity especially if such a group faces to a serious threat, are able to mobilize huge numbers of loyal fighters and cause very long and bloody conflicts. In general, ethnic conflicts can be described as a situation in which two or more parties try to reach incompatible goals defined at least in the case of one conflict party in ethnic terms (Wolff 2006, p. 2).

Intrastate conflicts¹ have become one of the most serious threats to the international stability after the end of the Cold war. Owing to this security threat, many researchers began to deal with quantitative research focusing on causes of these conflicts to prevent human suffering. Many risk assessment systems as well as models forecasting civil wars and serious political instabilities have been developed in the 90s (Davies & Gurr 1998). Ethnic conflicts are considered to be a type of civil war (Goldstone, Bates, Epstein, Gurr, Lustik, Marshall, Ulfelder & Woodward 2010).

Probably the most known work on this topic is the model of Collier & Hoefler (2004) emphasizing economic factors driving people towards conflict. On the other hand, Fearon & Laitin (2003) emphasize political parameters, whereas Ross (2004) and Franke, Hampel-Milagrosa & Schure (2007) focus on the relationship

¹Ethnic conflicts are treated in this theses as intrastate conflict.

between political instability and state natural resources. Other scholars, namely Hegre (2004), Elbadawi & Sambanis (2002), Bates (2008) and Gurr (2000) focus on a broad set of potential causes of civil wars to identify the most relevant causes.

A research group leading by Ted Robert Gurr developed *The Risk Assessment Model of Ethnopolitical Rebellion* based in University of Maryland to observe 268 politically significant minorities and subsequently to identify rebellions which are the most likely to escalate armed conflict. Similar project *The Political Instability Task Force (PITF)*, where T. R. Gurr is involved too, developed an early warning system for the U.S. foreign policy planning. This project deals with state failure and state collapse to warn against possible wars and conflicts.

Approaches to models forecasting civil wars and models for the risk assessment can be divided into two branches. 'State-centric' approach represented by The Political Instability Task Force use as a reference point state. On the the other hand, the second approach representing by The Risk Assessment Model of Ethnopolitical Rebellion chooses ethnic groups as a reference point. It means that researchers preferring the first approach consider the Russian Federation as a state in conflict due to violence in Chechnya since the 90s regardless of the fact that the rest of country is relatively peaceful. Moreover, they try to find causes of this violence by exploring data providing information about the state as a whole and do not deal with specific characters and living conditions of the Chechen ethnic group. Although, the second approach works also with data on the state, it prefers data on particular ethnic groups. Therefore, the second approach is considered to be more accurate and proper for the aim of this thesis.

The majority of models forecasting civil wars and models for the risk assessment focus on the whole world regardless to specific conditions of regions. Nevertheless, some efforts to adjust these models to a specific geopolitical appeared in recent years. Namely, researchers of the State Failure Task Force developed a model forecasting ethnic wars in Muslim countries due to the unique relation of Muslims to nationalism and their low acceptance of the dualistic distinction between sacred and profane modes of political and social behaviour. 'The Muslim model of ethnic war' proves higher accuracy in correct postdictive classification

of political instability than the global model of ethnic war.

Similarly, the space of the former Soviet Union is considered to be very different from other countries. Due to the totalitarian rule of Communist party, many serious ethnic conflicts were frozen. Moreover, Stalin's politics of ethnic issues laid the foundation for many other ethnic conflicts due to the forced migration of many ethnic groups (e. g. Crimean Tatars, Chechens) and border changes of administrative districts without respect to the ethnic and historical borders. Thus, after the collapse of the USSR, many ethnic conflicts became hot again (e. g. Russo-Chechen conflict) or latent threat (e. g. Russian minority in Estonia) to the political stability of the successor states. To sum up, the Soviet heritage shared by all successor states of the former USSR gives cause to and creates very serious threats for outbreaks of many ethnic conflicts. Thus the specific model of risk assessment for these states is very important.

Due to the reasons presented above, this diploma thesis is focused on the space of the former Soviet Union. For the purpose of this research, 38 politically relevant ethnic groups living in successor states of the USSR were chosen. Hypotheses are mostly based on the theory developed by professor Ted Gurr leading the project of The Risk Assessment Model of Ethnopolitical Rebellion. The hypotheses assume that permanent exclusion and significant distinctiveness of an ethnic group from the rest of society as well as strong identity are causes making conflict more possible. These three main assumptions are tested by using several statistical techniques, for instance Pearson's Chi-square test and logistic regression. Second, definition of the depended variable is changed to make research more accurate and more sensitive violent behavior of ethnic groups. Third, one main hypothesis on strong identity is added as the research on causes of ethnic conflicts shows importance of groups' identity.

There are three important methodological changes in the thesis comparing to the original project. First, logistic regression is used instead of loglinear analysis as logistic regression is appropriate also for continuous variables. In addition, logistic regression is used in many similar researches Collier & Hoeffler (2004) and Fearon & Laitin (2003).

To conclude, this diploma thesis explores factors making ethnic groups in the space of the former USSR to take up arms and fight. Although several models exist to forecast civil wars or assess risk of violence for the whole world, no model deals with a very geopolitically specific region of the former USSR. To fulfill the aim of this thesis, statistical methods are used to identify key factors making violent conflict more likely because these methods are the only one possible for testing of 38 ethnic groups and the influence of many factors.

2 Theories on ethnic groups and ethnic conflicts

The aim of this chapter is to describe key theories on ethnic groups and ethnic conflicts important for the purpose of this research. This chapter begins by outlining theories on ethnicity and ethnic groups. Subsequently, theories explaining outbreak of ethnic conflicts are introduced. Thereafter, the chapter deals with the theories developed from quantitative research with special attention to the theory of Ted Gurr on rebellion of ethnic groups.

2.1 Theories on ethnic groups

Ethnic groups were defined by Max Weber as '*a subjective belief in common descent... whether or not an objective blood relationship exists*' (Weber 1968, p. 389). Ethnic groups as psychological communities have common identity and interests; therefore, members of such a group share historical experience and culture characteristics like belief, language, customs, homeland etc. (Gurr & Harff 1994, p. 5).

During the second part of the 20th century there arose a question as to whether ethnicity is completely based on blood or not and whether ethnic identity can be changed by decision or a socialization process. This opinion struggle is represented by debate between primordialism and constructivism. Primordialism assumes that ethnic identity is primarily connected with blood and not with the process of socialization as people gain this identity by birth. Therefore, ethnic groups are perceived by primordialist researchers as extended families. Moreover, the membership in such a group cannot be easily changed according to this explanation (Vačura 2007, p. 11-13). On the other hand, constructivist approach supposes ethnic identities to be fluid. Therefore, membership in an ethnic group can be changed or overcome by stronger identity (e.g. religious or professional identities) as to be a result of social construction depending on environment (Cordell & Wolff 2009, p. 15).

Current studies on ethnic groups and conflicts mostly regard primordialism and constructivism as to be an explanation of two ideal types of ethnicity. The majority of studies are based on convergence of these two conceptions however constructivism is prevailing (Cordell & Wolff 2009, p. 14). Ethnosymbolism can be con-

sidered as a result of this theoretical convergence. For instance, Anthony Smith assumes that ethnic identity is created by myths and symbols which are preserved by members of ethnic groups for generations. Typical examples can be mentioned - myths about common ancestry or heroic historical events (Smith 1998, p. 73).

Similarly, Esman does not refuse the 'importance of blood' in ethnic identity however he emphasizes the fact that ethnic identities and emotional thinking of ethnic groups members can be manipulated for political purposes as threat or opportunity can change ethnicity in political issue or inter-ethnic conflict. Thus, Esman defines ethnic identity as '*... something that has roots in a group's culture, and historical experiences and traditions, but that is also dependent upon contemporary opportunities that can be a useful instrument for mobilizing people for social, political, or economic purposes that may or may not be related directly to their ethnic origins*' (Esman 1994, p. 15). This approach to ethnic identity can be labeled as instrumentalism (Varshney 2000, p. 27).

Instrumentalism considers ethnicity as an instrumental value which '*... can serve as focal point facilitating convergence of individual expectations*' (Varshney 2000, p. 29-30). Thus, ethnicity can be very useful mobilization strategy for elites. Therefore, ethnic conflict can be caused by the fact that elites manipulate ethnic identities to pursue their interests, thereby 'politicising ethnicity and ethnicising the politics' (Ukiwo 2005, p. 5). Thus, ethnic groups can be seen as interest groups united along ethnic lines to to achieve goals and gain political or economical goods (Hempel 2009, p. 462). In other words, ethnicity can serve as a mask for core interests according to instrumentalism (Varshney 2000, p. 34).

To sum up, primordialism, constructivism and instrumentalism are the main approaches for the explanation of ethnicity as a shared identity. Primordialism emphasizes emotional power of ethnic bonds given by innate identity and blood ties while constructivism accents social environment constructing ethnic identity which is considered to be fluid. Lastly, instrumentalism accepts emotional power of ethnic ties as well as possible change of identity. Contrary to primordialism and constructivism, instrumentalism sees ethnicity as an instrument for mobilization and achieving goals.

2.2 Ethnic groups behavior and theories on causes of ethnic conflicts

As written above, ethnic groups are communities of people linked together by shared values, interests, historical experiences and identity given by birth as well as social environment. Due to these strong ties, ethnic groups have very strong potential for mobilization which is necessary condition for organized interethnic violence. Two major theories explain interethnic violence. First, the rational choice theory assumes that decisions are dependent on cost-benefit calculation as individuals are driven by profit. Therefore, ethnic conflicts are considered to be results of calculations that attack is the best defense against another threatening group and in such cases that danger is very serious and very likely. Second, social-psychological approach explains ethnic conflict as a consequence of severe inequalities between ethnic groups (Cordell & Wolff 2009, p. 16-17). In other words, inequality is a sign of threat to group status and worth. Moreover, severe inequality often create irrational fear of extinction or fear of domination by other group which can be exacerbated by negative historical experiences. According to Tishkov, ethnic conflicts can arise from 'irrational feelings of loss of collective worth and suffering from historical injustices' (Tishkov 1996, p. 65). Thus, severe inequalities can be perceived to such an extent thus threatening the group such that a decision to take up arms can seem to the group as the best resolution. In other words, explanations of causes of ethnic conflicts provided by the rational choice theory and social-psychological theory do not contain serious contradictions.

Such irrational feelings are caused by symbols playing very important a role in the perception of ethnic groups and consequently in ethnic conflicts. As written above, Anthony Smith assumes that identity of ethnic groups is based on myths and symbols (language, national anthem, religion, territory etc.) maintained by group members for generations. The status of these symbols is a matter of prestige and self-respect. If the status of these symbols is uncertain, ethnic groups tend to obtain prestige authoritatively by public affirmation of the group status (Horowitz 1985, p. 216-218).

These affirmations can be represented by a demand to make only one official

language from the group's language. This demand is a clear demonstration of preeminence as language is a symbol of domination. Moreover, groups speaking primarily the official language show higher performance and better success in getting lucrative and prestigious jobs. For instance, majority positions in civil service taken by the group speaking primarily by the official language can be good example of language policy consequences having negative influence on interethnic relations. Similar conflict-producing issues can be religion and domination over an important territory (Horowitz 1985, p. 219-222).

The group's worth, prestige and self-respect is entirely derived from the worth, prestige and self-respect of the other groups. In order to ensure group status, groups lay exclusivist or inclusivist claims to territory, language, religion, power sharing etc. Exclusivist claims are represented by demand for ethnic, linguistic and religious homogeneity or at least domination. On the other hand, inclusivist claims demand parity (Horowitz 1985, p. 196-197, 224).

Claims of ethnic groups are supported by moral appeals to make these claims legitimate. For instance, claims to domination over a territory are often justified by prior occupation. This argument is used by indigenous inhabitants against other groups which are considered to be strangers to support their demand for independence. On the other hand, conquerors or other non-indigenous groups often defend their demand as to be a performance of special missions in the contested territory. The latter claim is usually articulate by central government to prevent territorial integrity of multiethnic states. Both justifications of claims to territory have an exclusivist character; therefore, these claims are absolutely incompatible (Horowitz 1985, p. 202, 204). Nevertheless an inclusivist demand for higher autonomy can be compatible with other territorial demands. To sum up this part, ethnic conflict can be considered as 'a matter of entitlement' (Horowitz 1985, p. 227) to domination over a territory or language and religious status.

As written above, the social-psychological approach explains ethnic conflict as a result of severe inequalities between groups. Such inequalities are caused by discrimination policies against certain groups. Moreover, entitlement arises from a desire to obtain a public affirmation of group worth which is entirely relative

to worth of other groups. It means that inequalities can be a root cause of group claims which can result in ethnic conflict. Keep in mind the link among inequalities, group claims and ethnic conflict, non-discrimination policy in multi-ethnic state is very important. In other words, multi-ethnic states are not a problem themselves however problems are exclusivist demands (Wolff 2006, p. 39, 41-42). Exclusivist demands are often expressed by claims to sovereignty which is threatening state territorial integrity. Therefore, the success of multi-ethnic states lie in their ability to prevent inequalities among ethnic groups (Wolff 2006, p. 55).

To sum up, ethnic groups are more prone to take up arms if they are a target of a discriminatory policy because this policy can cause emergence of exclusivist claims to domination over a territory or to status of language and religion. These claims are usually not compatible with claims of other groups; furthermore, they are seriously threatening the territorial integrity of a state where such a discriminated group lives.

2.3 Underlying and proximate causes of ethnic conflict

The previous chapter explores causes of ethnic conflicts from the ethnic groups' point of view. Potential causes listed above are not able to fully explain an outbreak of inter-ethnic violence. Many researchers emphasize that some state characteristic can make ethnic conflict more likely; thus, state is the reference point in their studies on conflicts. They namely refer to quality of democracy, state income etc.

At this stage, it is important to focus on more state-centered causes of ethnic conflict which can be classified as underlying causes and proximate causes. 'Underlying causes' are usually described as 'necessary, but not sufficient conditions for the outbreak of inter-ethnic violence' (Wolff 2006, p. 68). These causes consist of four factors. First, structural factors are characteristic of a state which are not possible to change in short time. These factors can be conditions like weak or failed state, ethnic minority concentrated in a border territory etc. Second, political factors include discriminatory politics or hostile inter-ethnic politics. Third, economic and social factors are mostly connected to economic system unequally distributed benefits and goods. Fourth, cultural and perceptual factors can be

defined as historical experiences with ethnically motivated hostilities and culture discrimination, namely, one official language, outlawing of certain culture practices etc. (Wolff 2006, p. 68). On the other hand, 'proximate causes' can make state more prone to conflict only if at least some underlying causes exist. 'Proximate causes' can be classified as internal and external. For instance, internal causes can be represented by bad leaders and external ones by bad neighbourhood (Wolff 2006, p. 71).

The previous two categories of causes are usually included in risk assessment models. However, there are some other factors which are excluded from these models as they are difficult to integrate into the formal modeling (Hoeffler 2011, p. 4-5). For example, these events can be irrational behaviour of leadership, assassination of a high politician, coup d'état and unexpected collapse of a currency etc. Nevertheless, these 'trigger factors' are often included in case studies.

2.4 Quantitative studies on intra-state conflicts

Intra-state conflicts became perceived as the most deadly conflicts after the 'Cold war' period. Therefore, researchers endeavour to determine causes of these bloody conflicts to prevent them as well as to adjust development aid and post-conflict reconstruction in war-torn societies. Although these studies are based on statistical analysis, it is not proper to consider results of regression analysis to be signs of causal relationship between explanatory and outcome variables. Due to the weak determinism in social sciences (Hollis & Smith 2000, p. 57) and often not highly significant results of statistical computation in this field, such results are regarded to be correlates rather than causes of intra-state conflicts (Hoeffler 2011, p. 1).

Theories explaining outbreak of organized violence within state borders can be classified according to the level of analysis. Quantitative research on this field deals mostly with three levels where reference objects are individuals, ethnic groups or states and observed outcome variables are participation in rebellion, rebellion challenging their government and civil wars, respectively.

2.4.1 Participation of individuals in rebellion

The microsurveys on individuals are not common due to the unwillingness of individuals to speak openly about their motivation to participate in a rebellion. Moreover, these studies are mostly case studies analysing only one rebellion or limited territory. Therefore, generalization derived from this type data analysis is not really powerful.

However, MacCulloch and Pezzini carry out a survey with approximately 100 000 respondents in 61 countries to find some common characteristic of people who are willing to join a rebellion. They detect that Christians with higher personal income living in a state with annually increasing GDP per capita have significantly lower taste for a revolutionary change (MacCulloch & Pezzini 2007, p. 8, 11).

On the other hand, Humphreys and Weinstein focus only on the situation in Sierra Leone. They examine motivation to fight among members of local military organizations participating in civil war (1991-2002). This research shows that members of such military groups are often low educated and poor man who do not support any political party. In addition, some fighters emphasize that they feel more safer inside such a group than outside (Humphreys & Weinstein 2008, p. 447, 449). According to Humphreys and Weinstein, these results can be interpreted as lack of other options which young men have in Sierra Leone (Humphreys & Weinstein 2008, p. 452).

2.4.2 Groups in violent conflict

As written above, second level of analysis deals with ethnic groups as a reference object. The team of researchers leading by Ted Gurr created unique 'The Minorities at Risk' (MAR) data set on 268 politically significant minorities in 112 countries. This data set observes and classifies key groups characteristics correlated with rebellion or protest² (Gurr 1998, p. 15).

²Rebellion is measured on scale of 0-7 points describing severity of rebellion (0 means none rebellion reported and 7 means protracted civil war). Similarly, protest is also measured on scale 0-5 points reporting severity of protest. All values of rebellion higher than 1 are considered to be violent, whereas only protest values of 4 and 5 are regarded as violent conflict.

Gurr assumes that involvement of ethnic groups in a rebellions and protests is driven by the groups' potential for mobilization and by the groups' relative deprivation which is caused by unjust discrimination (political, economic, cultural and religious). Relative deprivation provides motivation for political or violent action, whereas potential for mobilization can change this motivation into rebellion or protest. Groups' identities are suggested to be used as an instrumental response to governments and their treatment with ethnically defined minorities (Gurr 1993, p. 123-124). See also Hempel (2009).

Gurr explores that key factors making rebellions and protests more likely are strong identity of a group, the group's sense of grievance and domestic as well as international opportunities for collective action. First, strong identity is given by territorial concentration, higher level of group organization as well as persistent protests or conflicts in previous decade. Second, the group's sense of grievance can be caused by economic and political discriminations as well as culture and religious restrictions. In addition, lost autonomy can also increase the group's grievance. Third, domestic and international opportunities for collective action can be represented by support of a group from abroad (by a foreign state or by a kindred group) and by specific characteristics making the state weak. For instance, partial democracy as well as partial autocracy are often challenged by unsatisfied groups (Gurr 2000, p. 229-230).

Many other relevant studies on behavior of ethnic groups use the MAR data set to analyse ethnic groups and their participation in violence. For instance, Monica Toft analyses the relation between geography of ethnic groups and the likelihood of violence. Similarly to Gurr, Toft finds out that group concentration in one territory is necessary condition for conflict. On the other hand, group dispersion and higher urbanism of group members makes non-violence more likely (Toft 2010, p. 15).

Other research conducted by Jenne, Saideman and Lowe deals with a group claim-making as a means of group bargaining with the state center. Authors conclude that relative power of group has a significant influence on extreme de-

mands which often result in violence. Power of a group consists of three factors, namely, group concentration, external support and presence of a kin state (Jenne, Saideman & Lowe 2007, p. 539). Similarly to the Toft's finding, group concentration increases a power group as well as extreme demands. Furthermore, groups receiving support from abroad tend to violence as well. Unlike the previous two factors, the presence of a kin state shows no significant relation to group violence. The authors examines also some other factors not related to the group power. They find out that groups in wealthy countries are less prone to conflict. In addition, groups politically discriminated tend to violence, whereas this type of regime has not significant influence (Jenne et al. 2007, p. 551-552, 554).

To sum up, the most important factors making violence of ethnic groups more likely are the group's sense of grievance, opportunities for collective action and strong identity of a group, especially group concentration.

2.4.3 States and civil war

The last level of analysis of intra-state violence deals with states as a reference object. The observed outcome variable is mostly civil war defined as intra-state conflict with at least 1 000 battle-related deaths in total and at least 100 battle-related deaths annually ³. The most important studies in this field have been written by Collier & Hoeffler (2004), Fearon & Laitin (2003), Hegre, Ellingsen, Gates & Gleditsch (2001) and Goldstone et al. (2010).

For instance, Collier and Hoeffler examine whether 'greed' or 'grievance' is the major determinant of civil wars. The 'greed' model suppose that civil wars are more likely to occur in countries having financial sources for rebellion. On the other hand, the 'grievance' model supposes that inequalities, political oppressions, ethnic and religious division are the main causes of civil wars (Collier & Hoeffler 2004, p. 1). The results of logistic regression show that the 'greed' model better explain intra-state conflict, however, some predictors of the 'grievance' model matter too. Therefore, they conclude that combination of both models is superior. The factors making civil war more likely are abundant natural resources, large diasporas which is able to support rebellion and mountainous terrain favorable to guerrilla

³Ethnic conflict is considered to be a type of civil war.

warfare. In addition, poor countries and countries having recently experience with war are more prone to civil war. On the other hand, ethnic and religious diversity decreases the likelihood of war. Collier and Hoeffler interpret diversity in society as a constraint to recruitment because rebels usually belong to one ethnic or religious group. In other words, ethnic and religious division decrease potential number of rebels (Collier & Hoeffler 2004, p. 16, 19).

Similarly, Fearon and Laitin focus on conditions that favour insurgency which is defined as a particular form of military practice in civil wars. Their results show that 'financially, organizationally and politically weak central governments' make countries more prone to suffer insurgency. This counter-insurgency weakness is supposed to be mainly proxied by low per capita income. On the other hand, ethnic diversity does not increase the likelihood of insurgency. Therefore, Fearon and Laitin, similarly to Collier and Hoeffler, argue that opportunity to insurgency better predicts civil war than 'grievance' (Fearon & Laitin 2003, p. 75-76).

Contrary to Collier & Hoeffler (2004), Fearon & Laitin (2003), Sambanis consider ethnic division as to be an important factor in some civil wars. Therefore, he differentiates between non-identity civil wars and identity civil wars. In case of non-identity civil wars, the 'greed' factors are good predictors of intra-state war, whereas identity civil wars are better explained by the 'grievance factors. In other words, Sambanis examines that ethnic diversity is positively correlated with ethnic civil wars (Sambanis 2001, p. 280).

Hegre focuses on the question, whether democratization leads to civil peace or not. He explores that relationship between democracy and violence is defined as inverted U-shape curve. In other words, weak democracies and weak autocracies are significantly more prone to civil wars than strong democracies and harsh autocracies. Furthermore, the risk of civil war is similarly low in harsh autocracies as well as in strong democracies. Nevertheless, results shows that strong democracies are more stable than harsh autocracies because serious regime changes able to destabilize a state are more likely to occur in harsh autocracies (Hegre et al. 2001, p. 33, 42).

Similarly to Hegre, Schneider and Weiseshomeier focus on the role of democracy in civil wars. Nevertheless, they emphasize that the role of democracy need to be assessed with regard to ethnic heterogeneity and type of democratic system. Schneider and Weiseshomeier find out that autocracies with one dominant group (more than 45% of overall population) are less prone to civil war than autocracies with two equally powerful groups. In the case of democratic regimes, power-sharing institutions like a proportional voting system decrease the likelihood of civil war. On the other hand, ethnically divided countries with a presidential system are more prone to civil wars (Schneider & Wiesehomeier 2008, p. 186, 199).

With the exception of Schneider and Weiseshomeier, the previous researchers often cooperate in the Research Development Department of the World Bank to examine the most influential predictors of civil wars. Similarly, *The Political Instability Task Force* (PITF) consists of researchers from the US universities, for instance Goldstone, Bates, Epstein, Gurr ⁴, Lustik, Marshall etc. The PITF was founded on the request of the federal government of the United States of America to develop statistical models to assess the vulnerability of states and regime changes as well as to forecast various regime instabilities resulting in violence. The PITF is funded by the Central Intelligence Agency (CIA).

The PITF develops a global model forecasting political instability. This model is based on four influential predictors, namely infant mortality (proxy for level of economic development), regime type, conflict-ridden neighbourhood and state-led discrimination. Their outcome variable is defined as various types of political instability, namely adverse regime change, genocide/politicide, revolutionary and ethnic war. It means that the outcome is not only civil war or type of civil war but also one-sided violence (genocide/politicide) and regime change, contrary to the previous studies (Goldstone et al. 2010, p. 191-192, 194).

The PITF model is more oriented on practical outcomes; therefore, it emphasizes the accuracy of model in forecasting political instability and presents the

⁴Ted Gurr is also involved in *The Minorities at Risk* project.

influence of previously mentioned predictors. These predictors are not chosen due to a theory testing but due to their predictive power to make the model more accurate. The model correctly classifies 81,6 - 82,4% of cases. As a risk factors leading to political instability are identified high infant mortality, violent conflicts in neighbouring states, state-led discrimination of at least one minority and partial democracy and partial autocracy, whereas full democracy as well as full autocracy are identified as factors preventing political instability (Goldstone et al. 2010, p. 196-197).

The PIFT model faces several criticisms mostly due to the definition of outcome variable which is a combination of very different types of instabilities. Moreover, some criticism emphasizes the necessity to differentiate between regions because they have specific developments and conditions. Thus, Gurr, Woodward, Marshall & Force (2005) develop a model forecasting ethnic wars for predominantly Muslim countries. This model is based on different predictors than the global model and have higher accuracy. 'The Muslim countries model' is able to correctly classify 80 - 88% of cases. Contrary to the global model, 'The Muslim countries model' shows that minority rule and leader governing a country for long time make ethnic war more likely (Gurr et al. 2005, p. 10-11).

To sum up, findings presented above show the necessity to distinguish between non-identity and identity civil wars. Identity civil wars can be better explained by 'grievance' factors while non-identity civil wars are clarified by 'greed' factors. Nevertheless, poor countries having weak regime are more prone to intra-state violence regardless of whether identity or non-identity civil war.

2.5 Factors that matter I

Although previous studies differ in data set, methods and reference objects they share some similar findings about greed, grievance and opportunities making organized ethnic violence more likely. First, poor countries are more prone to violence as well as individuals with low income are more likely to join rebellion. Second, political and economical discrimination as well as group territorial concentration as a sign of strong group identity favour rebellion. Third, weak regimes like partial democracy and partial autocracy and support for rebellion coming from abroad increase the likelihood of an outbreak of ethnic conflict.

3 Development in successor states after the collapse of the USSR

3.1 Legacy of the Soviet Union

The aim of this chapter is to describe the policy of the Soviet Union related to ethnic issues as this period significantly influenced development in successor states of the USSR. Thus, this chapter begins by the formation of the Soviet Union. Thereafter, the federal system is described with a special attention to its consequences for ethnic groups. Afterwards, the chapter deals with the role of local ruling elites and their use of primordial and instrumental demands.

The Russian Empire, a predecessor of the Soviet Union, was formed primarily by expansions which were driven by necessity to defend 'the Great Russia' as this Empire had only few natural boundaries and many enemies. However, the Russian expansion was mostly absorptive rather than destructive, Russian emperors were not successful to create a nation state as such. Many attempts of assimilation and Russification failed. Similarly, the Soviet Union cannot be considered as a nation state (Sakwa 2008, p. 208-209).

The Soviet Union was officially established in 1922 after the October Revolution in 1917 and the Russian Civil War. The Soviet Union consisted of the Russian Socialist Federated Soviet Republic (including territories in Central Asia), the Socialist Soviet Republic of the Ukraine, the Socialist Soviet Republic of Belorussia, and the Socialist Soviet Republic of Transcaucasia (Azerbaijan, Georgia, Armenia) (Sakwa 1999, p. 139). During the Second World War Bolsheviks re-conquered territories lost during the First World War. Thus, in 1945 the Soviet Union consisted of 15 union republics: Armenia, Azerbaijan, Georgia, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Kazakhstan, Moldova, Estonia, Latvia and Lithuania (Sakwa 2008, p. 237).

The Soviet Union was formally the federation of Soviet republics; however, it was an unitary state in effect. The centralization of the Soviet Union was exercised primarily by the Communist Party of the Soviet Union (CPSU) (Sakwa 2008,

p. 236). Although the Third All-Russia Congress of Soviets announced that '*... the Soviet Russian Republic was established on the basis of free nations as a federation of Soviet national republics*' (Chugaev 1968, p. 94), the national self-determination was permitted only within the borders of the Soviet Union as independent states were considered to be an idea of bourgeois nationalists according to the CPSU (Tishkov 1997, p. 30).

The Soviet Union was a mixture of many ethnic groups living in more or less compact territory meaning that administrative borders were very hard to establish. Thus, borders were often changed to reach ethnic homogeneity within smaller federal units. Nevertheless, administrative border changes were not successful to meet this goal. Moreover, ethnic groups living in the Soviet Union did not have similar populations or similar levels of social and economic development. Thus, the Soviet federal system was based on hierarchy of ethnic groups. This hierarchy created so called 'ethnofederalism'. The Soviet Union consisted in 1991 of 15 union republics, 38 autonomous republics and many 'oblasts' and 'okrugs' (Sakwa 2008, p. 238). All these units had their own titular nationalities according to which such a unit was named. Furthermore, local elites governing these ethno-federal units comprised mostly from members of these titular nationalities. Therefore, members of these titular nationalities were favored against other ethnic groups. Thus, 'ethnofederalism' created administrative units with majorities and minorities (Roeder 1991, p. 204, 218), as shown in tab. 1. Furthermore, some ethnic groups were given preferential treatment as they received status of titular nationalities ⁵.

Soviet 'ethnofederalism' was constituted mainly by two processes. First, Stalin's collectivisation was aimed to destroy peasantry which was considered to be an important part of the Russian identity and symbol of the Russian tsarism (Sakwa 2008, p. 209). Second, 'korenizatsya', a nativization policy, established guarantees for educational development of ethnic groups to create their own elites and tied them to the Soviet regime as they were drawn into the political as well as administrative posts of the CPSU and state in their federal units (Roeder 1991, p. 204). The motivation behind the 'korenizatsya' was a creation of socially

⁵For instance, in Georgia the Georgians were labeled as members of titular nationality of this union republic while Abkhazians, Adzhars, South Ossetians and Russians were minorities.

Republic	Pop. (000)	Titular nationality in republic (%)	Russians (%)	Minor na- tionalities	(%)	Other (%)
Russia	147,386	-	82.5	Tatar	3.8	15
Estonia	1,573	61.5	30.3	Ukrainian	3.1	5
Latvia	2,681	52.0	34.0	Belarusian	4.5	9
Lithuania	3,690	79.6	9.4	Polish	7.0	4
Moldova	4,341	64.5	13.0	Ukrainian	13.8	9
Belarus	10,200	77.9	13.2	Polish	4.0	5
Ukraine	51,704	72.7	22.1	Jewish	0.9	4
Armenia	3,283	93.3	1.60	Azeri	2.6	2
Azerbaijan	7,029	82.7	5.6	Armenian	5.6	5
Georgia	5,449	70.1	6.3	Armenian	8.1	16
Kazakhstan	16,538	39.7	37.8	German	5.8	16
Kyrgyzstan	4,291	52.4	21.5	Uzbek	12.9	14
Tajikistan	5,112	62.3	7.6	Uzbek	23.5	6
Turkmenistan	3,534	72.0	9.5	Uzbek	9.0	10
Uzbekistan	19,906	71.4	8.3	Tajik	4.7	16

Tab. 1 Nationalities in the republics of the USSR in 1989

Source: USSR Facts & figures Annual (Pollard 1991, p. 499-502)

homogenous Soviet nation comprising of harmonious social structures of ethnic groups (Tishkov 1997, p. 30). Thus, the 'ethnofederal' system was only a transitional stage in the long-term goal of the state unity with the Soviet identity instead of ethnic identities (Sakwa 2008, p. 238). To sum up, symbols of the tsarism were destroyed and elites of various ethnic groups were tied with the Soviet regime.

The state-building of the Soviet Union was a very cruel process due to the totalitarian character of the Soviet regime and social engineering without regard to boundaries and customs of ethnic groups and various local identities of Soviet citizens. Boundaries of many federal units were drawn artificially. Similarly, many identities of titular nationalities were created irrespective of reality. For instance, borders in the Central Asia and Caucasus did not respect ethnic boundaries as well as other identities such as clan ties which were much more stronger than the ethnic ones. Furthermore, Soviet social engineering originated some nationalities which did not exist before 1922 to create federal system consisting of units leading by titular nationalities (Sakwa 2008, p. 230). In addition, mem-

bers of titular nationalities received preferential treatment in education system as well as receiving administrative, political and other important jobs meaning that korenizatsya policy resulted in overrepresentation of titular nationalities in the CPSU and state leadership posts (Roeder 1991, p. 204, 207).

Bolsheviks needed to persuade elites of various ethnic groups to support the idea of one united socialist state to ensure stability and cohesion of the Soviet Union. As written above, 'korenizatsya' enable creation of local elites who became safeguards of this stability and cohesion. Local elites were strongly dependent on Moscow as they gained their posts thanks to their membership in the CPSU. Thus, local elites must be loyal to the Party if they wanted to maintain their status. Moreover, local elites were responsible for the well-being of people living in their federal units. However, local elites had monopoly on expression of ethnic identity, they strictly respect the CPSU in this issue (Roeder 1991, p. 198-199, 205).

Nevertheless, this policy was not so much successful. Demands for awards of local ruling elites increased. Simultaneously, their ability to meet socioeconomic demands of ordinary people decreased. This situation resulted in competition for scarce resources among titular nationalities. This situation resulted in competition for scarce resources of the Soviet Union among titular nationalities. Thus, local elites mobilized public to support their arguments to gain more and more resources than other titular nationalities (Roeder 1991, p. 213-214). The main topic of ruling elites were life chances. As the time went by, local ruling did not demand only more socioeconomic goods of the Union but also higher status of their federal units as they realized that higher status means advantage in the case of redistribution of resources of the Soviet Union (Roeder 1991, p. 219-220).

Thus, local elites used mostly instrumental agenda at the beginning as politization of ethnicity can be described as a goal oriented process or activity from the instrumentalist point of view. In other words, political leaders of titular nationalities strove to gain socioeconomic goods to get comparative advantage over other groups. Subsequently, local ruling elites started to use also primordial agenda to elevate status of their federal unit. Thus, politization of ethnicity

means process of communal self-discovery which is closely tied with history, language, religion and geographical compactness of the group. Primordial agenda played an important role during the disintegration of the USSR (Roeder 1991, p. 228). See also (Smith 1981, p. 105) and (Young 1979, p. 43).

To sum up, the state-building of the USSR was very cruel as the administrative borders of federal units were drawn artificially regardless to settlements ethnic groups. 'Ethnofederalism', the Soviet federal system was based on hierarchy of various units ruling by titular nationalities. Local elites, members of titular nationalities, received their status thanks to their loyalty to the CPSU. They were also responsible for the well-being of people living in their federal unit. Therefore, this federal system resulted in competition for resources among federal units. At the beginning, political leaders of titular nationalities used instrumental agenda demanding to increase socioeconomic gains of their groups. However, they shortly supported their demands also by primordial arguments to elevate the status of their federal unit. 'Ethnofederalism' created advantaged (titular nationalities) and disadvantaged groups (minorities) and highly competitive environment where ethnicity was very important factor of success.

3.2 Dissolution of the Soviet Union

As written above, dissatisfaction and demands of titular nationalities and other ethnic groups were increasing during the 80s and culminated at beginning of the 90. Political and economical development of the Soviet Union stagnated due to the low efficiency during this period. Michail Gorbachev, a political leader of the Soviet Union⁶, saw a solution in radical reform consisting of 'perestroika' meaning reconstruction and reform and 'glasnost' meaning publicity and openness (MacCalley 2002, p. 384). Gorbachev's reform efforts enabled speaking more openly about demands rising from instrumental and primordial agenda. Moscow lost central authority which led to the disintegration of the Soviet Union. Nevertheless, the right of secession could only be used by the union republics⁷. The

⁶Michail Gorbachev became General Secretary of the CPUS in 1985.

⁷The union republics were federal units at the top of the hierarchical Soviet federalism (Armenia, Azerbaijan, Georgia, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Kazakhstan, Moldova, Estonia, Latvia and Lithuania).

successor states of the USSR continued to be ruled by titular nationalities which became majorities in their own states (Tishkov 1996, p. 63). However, many minorities of the USSR remained minorities in newly established states. Naturally, many of them were not satisfied with their status and demanded also state sovereignty or at least high level of autonomy, for instance Chechens and Tatars in the Russian Federation, Gagauzs in Moldova and Abkhazians in Georgia. This situation led to many tensions and ethnic conflicts. Moreover, new states were relatively weak, mostly authoritarian (Payin 1996, p. 69). Furthermore, ruling majorities often insisted on their exclusivist demands in case of language, religion and territory, contrary to minorities which mostly stressed on parity demands.



Fig. 1 Successor states of the USSR
Source: *Springtime of Nations* (2012)

According to Tishkov, unequal social status but not lower economic status can lead to ethnic conflict (Tishkov 1996, p. 59, 62). Similarly to Horowitz (1985), Tishkov suggests that diminished and discriminated ethnic groups tend to ethnic violence as they have fear for their existence. However, their fear can be very irrational, for example many ethnic groups are afraid of dying out. In other words,

'...ethnic conflict can arise from irrational feelings of loss of collective worth and suffering from historical injustice' (Tishkov 1996, p. 64). The state is perceived as protection of ethnic identity comprising symbols like language, territory and religion. In the case of the successor states of the Soviet Union, Tishkov identifies two main types of ethnic conflict or struggle. First, struggles for territories (e.g. Nagorno-Karabakh, Crimea) have symbolic causes rather than pragmatic. Second, struggle for language (e.g. Baltic states) have often symbolic as well as pragmatic cause. Language can be symbol of domination of one group as well as comparative advantage helping to gain more posts in political and administrative offices and agencies (Tishkov 1996, p. 65-66).

Tishkov's symbolic causes, for instance rule over a territory and official language, arise from irrational feelings. On the other hand, Tishkov's pragmatic causes, for instance lower social status, are motivated by rational reasons. However, symbolic causes are often not purely irrational and symbolic. For instance, demand on to make the only one official language from the group's language can be considered as an effort to affirm group's status as dominance of group's language is a symbol of domination. Nevertheless, groups speaking primarily official language show higher performance and better success in getting lucrative and prestigious jobs. Therefore, this demand can have pragmatic as well as symbolic roots. Similarly, territory can be important due to group's history, for instance Nagorno-Karabakh for Armenians, as well as group's agriculture, for example Ferghana Valley for many ethnic groups in Central Asia. Moreover, reasons for importance can overlap. Thus, it is often very hard to identify whether causes of ethnic conflicts are symbolic or pragmatic. Therefore, it is better to sort causes of ethnic conflicts according to primordialism and instrumentalism as these two approaches much more clearly defined and explain politicization of ethnicity and causes of ethnic conflicts.

3.3 Major ethnic conflicts in successor states

As described above, newly established weak states suffered from many security problems including ethnic conflicts and tensions. This chapter is aimed to described some of the most important of them to determine main causes of ethnic conflicts in successor states of the Soviet Union.

3.3.1 The Russian Federation - identity and federalism

The Russian Federation as a core part of the Soviet Union needed to deal with many political and security issues, for instance an unclear idea on the identity of the new Russian state, settlement of the system of federation and treatment with Russians beyond borders of new Russia. Contrary to the other successors, Russians did not demand sovereignty from the Soviet Union. In fact, new Russia is the rest of the USSR after the other seceded. Naturally, this fact influenced the formation of the Russian identity in the 90s.

The Russian Federation needed to redefine Russian identity meaning that it was necessary to decide who are Russians and which parts of the Russian history are usable for the new identity. The Soviet Union was a symbol of the Russian magnitude and importance; thus, it was very hard to abandon this part of history. The question, who are Russians, was also very important as the Russian Federation comprises more than 180 ethnic groups and Russians are made up less than 80% of the total population in 1991. Although, President Yeltsin decided for an inclusivist approach to the Russian citizenship and created an asymmetric federal system favoring titular nationalities, many ethnic groups were not satisfied and demanded sovereignty (Sakwa 2008, p. 213, 215, 217, 218).

Russian federalism is based on two principles: territorial (federal cities, 'oblasts' and 'krais') and ethno-territorial (republics, autonomous 'oblasts' and autonomous 'okrugs'). The ethno-territorial principle is the legacy of the Soviet 'ethnofederalism' as the role and advantages of titular nationalities remained very similar. All federal units were equal; however, republics had attributes of statehood, for instance parliaments, presidents, supreme court, constitutions and laws (Sakwa 2008, p. 240-241, 251) since it was very important to tie the republics to the new Russia as Moscow faced further disintegration. Moreover, in these republics lived a significant number of ethnic Russians as shows fig. 2.

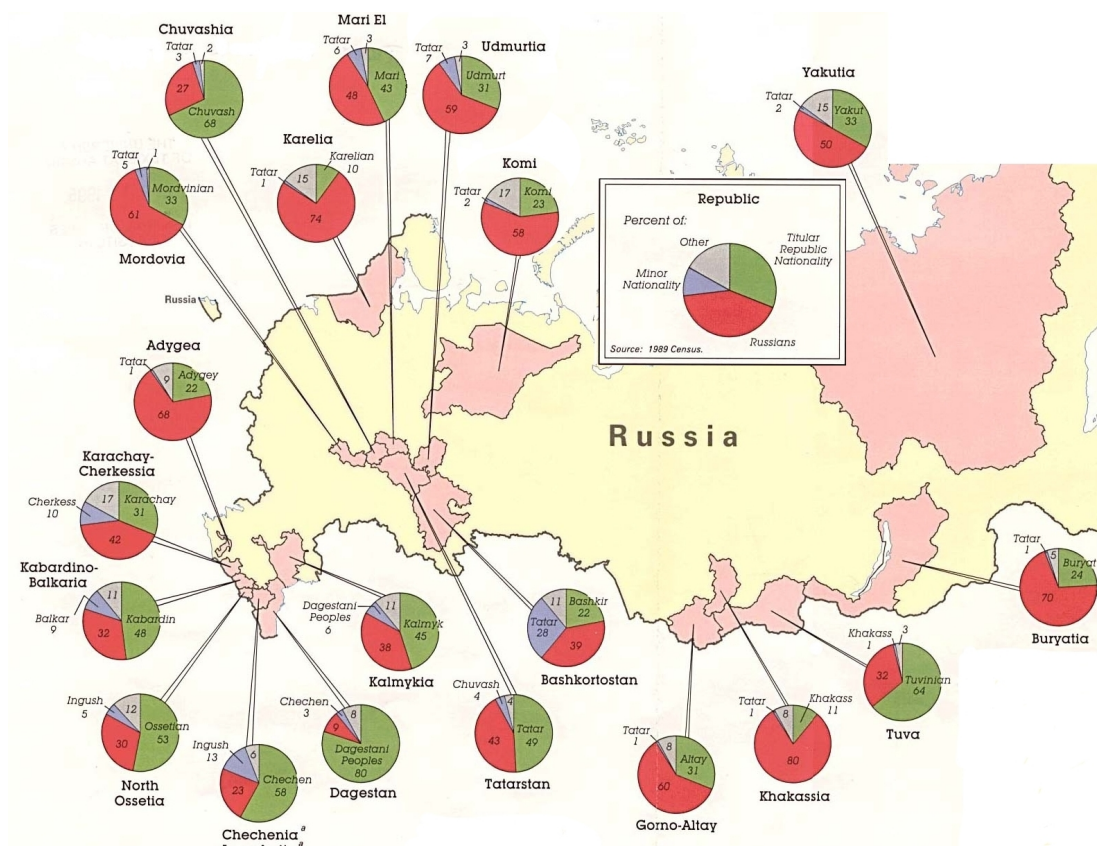


Fig. 2 Russians in republics of the Russian Federation in 1994

Source: *Perry-Castañeda Library* (2012)

Despite the allowance of statehood, Tatarstan and Chechnya refused to sign the new Federation Treaty. Tatarstan voted for self-rule in a national referendum whilst Chechnya declared independence from the Russian Federation in 1991 (Sakwa 2008, p. 251). While Tatarstan successfully arranged an agreement on the joining of Tatarstan, the situation in Chechnya led to two bloody wars.

3.3.2 Tatarstan

Tatarstan is an autonomous republic of the Russian Federation located in the middle of the European part of Russia (See fig. 2). Due to its location, secession of and high number of Russians living there (See fig. 2), Moscow did not want to accept sovereignty of this republic. Tatar elites controlled their domestic politics, natural resources (oil) as well as maintained relations with many states in Europe and Asia at the beginning of the 90s. Despite these facts, Tatar independence

movement demanded sovereignty from Russia. Process of long negotiations with Moscow resulted in bilateral rule in spring 1994 (McAuley 1997, p. 42).

This development provokes a question, why political leaders of Tatarstan did not insisted on sovereignty. There are several possible reasons behind the decision of Tatar political leaders. First, Tatar independence movement did not have a clear idea about its aims, contrary to similar movements in the Baltic states and the Southern Caucasus. Tatars account for approximately five million; however, only half of them live in the Autonomous Republic of Tatarstan. Tatars are spread across Russia. They have strong communities in Crimea, Siberia and of course in Moscow. Moreover, the borders of the current republic of Tatarstan did not correspond with the territory of the historic Tatarstan. Therefore, leaders of independence movement did not have clear idea about borders of their new state. Furthermore, neighboring autonomous republics having strong Tatar minorities did not want to be a part of 'Great Tatarstan' (McAuley 1997, p. 43, 79-80).

Second, Moscow threatened Tatar leaders by using force in the case of sovereignty and the Russian army was ready to invaded Tatarstan (Bukharaev 1999, p. 123-124). Third, Russia could also cut off the Tatar oil resources from the Russian pipelines enabling the sale of the oil (McAuley 1997, p. 42). The last possible reason for the agreement with Russia was expressed many times by the Tatar president Mintimer Shaimiev who claimed that Tatars did not really want sovereignty from the Russian Federation; however, they demanded to be treated as equal partners and the Federal Treaty was perceived as a coercion from the top. Due to these reasons, there was a bilateral treaty between Russia and Tatarstan an appropriate solution according to Mintimer Shaimiev. Nevertheless, other Tatar political leaders did not agree (Bukharaev 1999, p. 123).

3.3.3 Chechnya

Chechnya is the most rebellious region of the Russian Federation. Russians conquered Chechnya in the 16th century and since this time Chechens have tried to gain independence. Thus, the Chechen republic declared independence after the dissolution of the Soviet Union. Moscow did not agree with this step; however, the newly established Russian Federation was too weak at the beginning of the

90s to pacify this Caucasian republic (Souleimanov 2005, p. 81). Therefore, the Russian government supported Chechen opposition which sought to overthrow the then Chechen president Dudajev. This effort was not successful; thus, the Russian army invaded Chechnya in 1994 since the Russian Federation was relatively stable. The first Russo-Chechen war lasted two years and ended as a victory of Chechen forces (Youngs 2000, p. 9-12).

The Khasavjurt Peace Agreement did not solve the political statute of the Chechen autonomous republic and postponed the decision on 2001 (Hughes 2007, p. 111). Nevertheless, the majority of Chechens perceived this agreement as affirmation of Chechen independence from the Russian Federation. It was supported by the fact that Chechnya enjoyed relatively high autonomy during the inter-war period (1996-1999). Chechnya suffered from low economy, political fragmentation and serious security problems including increasing religious extremism, mass kidnapping and fighting amongst armed groups of various warlords (Souleimanov 2005, p. 142). See also Tishkov (2004). The Chechen government was too weak to resolve these problems. This situation ended in defeat of the moderate president Maskhadov by Wahhabist warlords. In addition, Wahhabists led by Basajev and Khattab invaded Dagestan in 1999. Moscow reacted by armed intervention triggering the second Russo-Chechen war (Souleimanov 2005, p. 161-162). The war ended in 2000; however, many Chechen guerrilla groups did not surrender and continue to fight.

At this stage it is important to deal with the question why did Chechnya fight to reach sovereignty from the Russian Federation and Tatarstan did not. These two autonomous republics share many similarities. First, political leaders of Tatarstan as well as Chechnya had support from masses in case of sovereignty. Second, both Tatars and Chechens have strong shared identities rooted in common culture, customs, language and history. The main difference can be found in historical experience of brutality of Russian soldiers and Soviet system. Contrary to Tatars, Chechens experienced many bloody crusades of Russia. In addition, Chechens were deported during the World War II as they were considered by Bolsheviks as possible betrayers of the Soviet fight against the Nazi army. However, an important role played in the decision to fight for sovereignty was also behavior of the

elites. Nevertheless, this decision was also influenced by the historical experience with Russians.

3.3.4 Russians outside of the Russian Federation

25 million ethnic Russians remained beyond the borders of the Russian Federation after the collapse of the Soviet Union. See fig. 3. These Russian minorities became a source of ethnic tensions in many successor states of the USSR (Sakwa 2008, p. 208). Russians migrated into various parts of the Russian empire during the Russian expansion and this process continued during the Soviet period. Collapse of the USSR and nationalist movements triggered 'anti-Russian' sentiments in many successor states as the Russian culture and Russian language were perceived as a culture and language of the Soviet Union. Thus, Russians were negatively perceived as a relic or symbol of the USSR (Tishkov 1996, p. 57-58).

Many nationalist movements in successor states integrated this 'anti-Russian' sentiment as into their political programs as negative approach to Russians was often a part of national identity of newly established states. It resulted in economic repressions and exclusivist language policies meaning that the Russian language was substituted by languages of titular nationalities. As a result, Russians lost their jobs and often also properties. Thus, thousands of Russians left (Tishkov 1996, p. 58-60). See also (Horák 2005, p. 36).

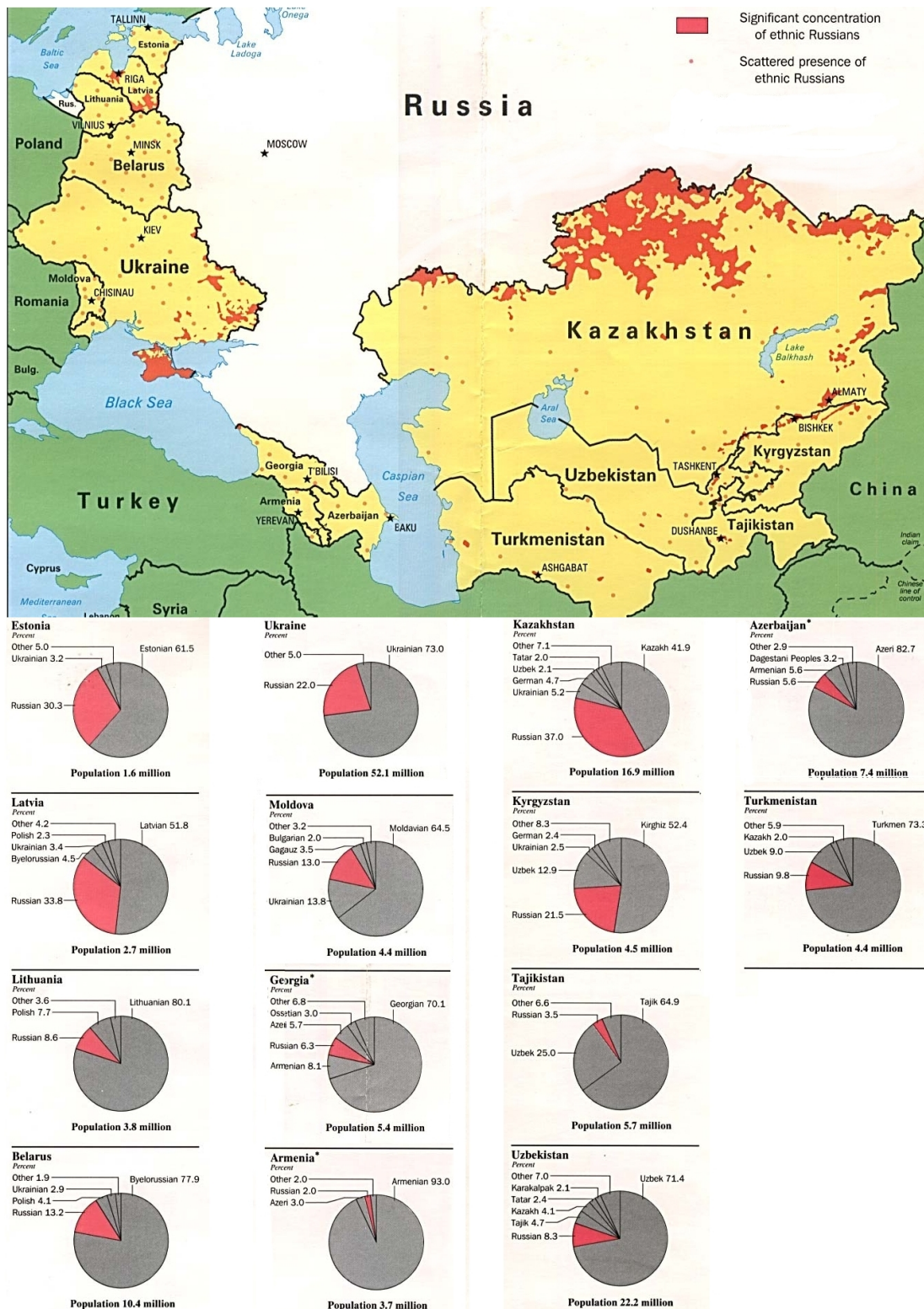


Fig. 3 Russians in successor states of the Soviet Union in 1994

Source: *Perry-Castañeda Library* (2012)

3.3.5 Russian language

Russian language was considered a to be a *lingua franca* of the Soviet Union as the Russian language was used for the inter-ethnic communication. This practice caused that minorities were mostly not pushed to use or even learn language of the titular nationalities (Aklaev 1996, p. 88).

After the collapse of the Soviet Union, Russians living outside the borders of the Russian Federation find ourselves in a strange situation as their native language lost its status. Many successor states introduced new official languages (native languages of titular nationalities) as this act was often perceived by nationalist forces as an act of culture affirmation and political challenge closely related to the state independence issues (Aklaev 1996, p. 88).

This process resulted in ethnic tensions and sporadic violence in many successor states, for instance Moldova and the Baltic republics (Druviete 1998, p. 180-181). See also (Aklaev 1996, p. 89).

3.3.6 Conflict in the Osh region

The first serious ethnically motivated conflict in the Osh region broke out in the summer 1990. Within one week 171 people were killed (Tishkov 1997, p. 137). The Osh region is located in the Ferghana Valley which has very high population density due to its soil fertility. Ferghana Valley is divided among Kyrgyzstan, Uzbekistan and Tajikistan; thus, this region is inhabited by many ethnic group as shows fig. 4. With regard to the ethnic composition as well as location spreading across three states, it can be said that ethnic conflict in Ferghana Valley may affect at least three states (Horák 2005, p. 39). Therefore, development in Ferghana is important for stability of the Central Asia.



Fig. 4 Ethnic groups in Central Asia in 1993

Source: *Perry-Castañeda Library* (2012)

The Osh region suffers from a very low economy, serious lack of housing, high unemployment and birth rate. Although Uzbeks make up the majority of population, they were seriously underrepresented in executive bodies in favor of Kyrgyz minority in 1990. Ethnic conflict was triggered by the redistribution of land for house building among Kyrgyz population (Asankanov 1996, p. 118-119, 121). Interviews conducted among people living in the Osh region show that low living conditions and wrong decision on land redistribution are perceived as a main cause of the violence in the summer 1990 (Asankanov 1996, p. 124).

3.4 Factors that matter II

Previous discussion shows that unequal treatment, namely language restrictions, economic and political discrimination, can make ethnic groups more prone to conflict. Similarly, strong identity seems to be an important factor for collective action of ethnic groups against government.

4 Methodology and Data

The aim of this chapter is to explain methodology of the research. Thus, this chapter begins by the introduction of hypotheses and their rationale. Thereafter, statistical methods used in the research are listed. Afterwards, dependent and independent variables are described to clarify operationalization of the hypotheses. Subsequently, this chapter deals with a database which is used for testing. Lastly, some of the methodological limitations are discussed.

4.1 Hypotheses

The theoretical discussion in previous chapters (*2. Theories on ethnic groups and ethnic conflicts* and *3. Development in successor states after collapse of the USSR*) shows three main factors which can make ethnic groups more prone to conflict: permanent exclusion, strong identity and lastly dissimilarity of an ethnic group. These factors constitute main three hypotheses.

Hypothesis 1: *Permanent exclusion of an ethnic group from the rest of society will be a cause making ethnic conflict more possible.*

Hypothesis 2: *Dissimilarity of an ethnic group to the majority will be a cause making ethnic conflict more possible.*

Hypothesis 3: *Strong identity of an ethnic group from the rest of society will be a cause making ethnic conflict more possible.*

4.1.1 Permanent exclusion

Permanently excluded ethnic groups are supposed to be more prone to use of violence Gurr (1998). See also Gurr (2000), Gurr (1993), Horowitz (1985) and Tishkov (1996). According to the instrumental approach, politicization of ethnicity is aimed to gain advantage for an ethnic group (Roeder 1991, p. 228). See also (Smith 1981, p. 105) and (Young 1979, p. 43). Similarly, Hempel (2009) instrumentalism labels ethnic groups as 'interest groups'. In addition, group's worth, prestige and self-respect is entirely derived from the worth, prestige and self-respect of the other groups. Thus, unequal treatment makes ethnic groups weak, therefore vulnerable (Horowitz 1985, p. 196-197, 224).

Exclusion can be expressed by laws or informal norms preventing equal treatment and distribution of political and economic goods and limiting use of native language as well as religious practicing. Probably not all kinds of exclusions can lead to ethnic conflict or violence. Tishkov suggests that economical discrimination is not powerful enough to trigger an ethnic conflict, contrary to social discrimination (Tishkov 1996, p. 59, 62). Nevertheless, the conflict in the Osh region has showed that low level of economic development and economic discrimination can together cause ethnic violence. Nevertheless, Uzbeks suffered from economic as well as political discrimination (Asankanov 1996, p. 118-119, 121). Similarly, development in the Baltic states and Moldova has proved that restrictions on culture of ethnic groups including use of language can lead to ethnic tensions and ethnically motivated violence (Druviete 1998, p. 180-181). See also (Aklaev 1996, p. 89).

To sum up, political, economic and cultural exclusion matter in case of ethnic conflict. These three factors are tested separately to show their impact on the possibility of outbreak of an ethnic conflict.

Hypothesis 1a: *Political discrimination of an ethnic group will be a cause making ethnic conflict more possible.*

Hypothesis 1b: *Economic discrimination of an ethnic group will be a cause making ethnic conflict more possible.*

Hypothesis 1c *Cultural discrimination of an ethnic group will be a cause making ethnic conflict more possible.*

4.1.2 Strong identity

Ethnic groups having strong senses of identity are considered to be more prone to ethnic conflict as they have high potential for action. According to Gurr, identity of an ethnic group is given by territorial concentration, higher level of group organization as well as persistent protests or conflicts in previous decades (Gurr 2000, p. 229-230). Especially group concentration is emphasized as necessary condition for conflict in many researches (Toft 2010, p. 15). See also (Jenne

et al. 2007, p. 539). In other words, stronger identity means stronger 'interest group' competing for its interests according to instrumentalist explanation.

As showed in the cases of Chechnya and Tatarstan, strong identity and historical experience of a group can be very influential. Due to the fact that Tatars as well as Chechens have strong shared identity rooted in common culture, customs, language and history, their political leaders had support from movements for independence in their demands for secession from the Russian Federation. Nevertheless, only Chechens decided to fight for independence. It can be explained by the fact that Chechens experienced many bloody crusades of Russia and were forcibly deported during the World War II from their homeland, contrary to Tatars. See chapters 3.3.2 *Tatarstan* and 3.3.3 *Chechnya*.

Strong feelings of grievance can also strengthen group's identity. As written above, Soviet 'ethnofederalism' taught ethnic groups, especially titular nationalities, compete with other ethnic groups to reach their goals (Roeder 1991, p. 206, 213-214). Therefore, many ethnic groups tried to gain many resources as they could during the short period of the dissolution of the Soviet Union in order to ensure group status. Many ethnic groups assumed that this was the best way to establish their own state, for example Chechens, Tatars and Abkhazians. However, only titular nationalities of union republics were allowed to gain independence, other ethnic groups have still their separatist movements seeking independence. Some of these movements are radical and violent, for instance Chechen groups.

Hypothesis 2a: *Territorial concentration of an ethnic group will be a cause making ethnic conflict more possible.*

Hypothesis 2b: *Higher level of group organization will be a cause making ethnic conflict more possible.*

Hypothesis 2c *Existence of an active separatist movement of an ethnic group will be a cause making ethnic conflict more possible.*

Hypothesis 2d *Lost autonomy of an ethnic group will be a cause making ethnic conflict more possible.*

Hypothesis 2e *Experience of an ethnic group with persistent protests or conflicts in previous decade will be a cause making ethnic conflict more possible.*

4.1.3 Dissimilarity

More dissimilar ethnic groups to the majority seem to be more prone to ethnic conflict. According to primordialism, ethnicity is an identity given by historic memory, language, religion etc. (Vaňura 2007, p. 228). Thus, politicization of ethnicity can be described as a process of communal self-discovery (Roeder 1991, p. 228). This research assumes that more dissimilar ethnic group to the majority tends to conflict as more similar ethnic group to the majority is more easily integrated into the society. Different religion or language can distinguish single ethnic groups from the majority.

For instance, different language has caused ethnic tensions in the Baltic states and Moldova between Russian minorities and the majority (Druviete 1998, p. 180-181). See also (Aklaev 1996, p. 89). Similarly, many ethnic conflicts have occurred when ethnic groups have different religion from the majority, for example Chechens and Russians as well as Abkhazians and Russians. Nevertheless, there are also conflicts between ethnic groups having similar religion and languages. For instance, the conflict in the Osh region occurred between Kyrgyzs and Uzbeks (Asankanov 1996, p. 118-119). Both ethnic groups are predominantly Sunni Muslims and speak Turkic language. Therefore, dissimilarity of an ethnic group to the majority cannot be the sufficient condition for an outbreak of ethnically motivated violence. However, dissimilarity seems to be a factor increasing the likelihood of ethnic conflict or tensions. The impact of religious and language dissimilarity of an ethnic group to the majority is measured separately to receive more precise results.

Hypothesis 3a: *Language dissimilarity of an ethnic group to the majority will be a cause making ethnic conflict more possible.*

Hypothesis 3b: *Religious dissimilarity of an ethnic group to the majority will be a cause making ethnic conflict more possible.*

4.2 Analysis

The aim of this thesis is to identify key parameters driving these ethnic groups towards armed conflict as a response to their needs, interests and living conditions. Thus, descriptive statistics, Spearman's chi square test, odds ratio, Cramer's V, point-biserial correlation and conditional logistic regression are used for the purpose of this research. The analysis is divided into three steps as follows:

1st step: Descriptive statistics is used to show some basic information on ethnic groups.

2nd step: Spearman's chi square test, odds ratio, Cramer's V and point-biserial correlation are computed to assess risk factors making ethnic groups more prone to violent behavior. These statistical methods are also used for selection of variables for building a risk assessment model.

3rd step: Logistic regression is used to build the risk assessment model determining main risk factors of ethnic conflict.

4.2.1 Risk factors assessment

Spearman's chi square test, odds ratio, Cramer's V and point-biserial correlation are computed to assess influence of individual variables on outbreak of an ethnic conflict. More types of correlations are needed to compute due to two reasons. First, independent variables are binominal as well as continuous. Second, computation of odds ratio for binominal variable gives very valuable information on influence of the variable; however, odds ratio are not comparable with other correlation results. In addition, odds ratio does not test significance of its results. Therefore, Spearman's chi square test and Cramer's V are computed too. Different statistical tests are used as follows:

Point-biserial correlation is used for computation of correlation between binominal (dependent variable) and continuous variables (independent variables) as follows (DeCoster & Claypool 2004, p. 28-29) and (Klugh 1986, p. 78-79):

$$r_{pb} = \frac{(\bar{X}_1 - \bar{X}_0)\sqrt{p(1-p)}}{S_X} \quad (1)$$

where r_{pb} stands for the point biserial correlation,
 \bar{X}_1 is the mean of X when $Y = 0$,
 \bar{X}_0 is the mean of X when $Y = 1$,
 p is the proportion of values when $Y = 1$ and
 S_X is the standard deviation of X .

Cramer's V is used for computation of correlation between two binominal variables (dependent and independent variables) as follows (Cramer 1998, p. 357):

$$\phi_c = \frac{\chi^2}{N(k-1)} \quad (2)$$

where χ^2 is derived from the Pearson's chi-squared test,
 N is the total number of observations and
 k is number of rows or columns (in 2x2 contingency tables).
Cramer's V is computed as the value of χ^2 is comparable with the value of r_{pb} .

Spearman's chi square test is used for computation of correlation between two binominal variables (dependent and independent variables) as follows (Field 2009, p. 688):

$$X^2 = \sum_{i=1}^n \frac{(O_i - E_i)^2}{E_i} \quad (3)$$

where X^2 is the Pearson's cumulative test statistic,
 O_i is an observed frequency,
 E_i is an expected frequency and
 n is the number of cells in the contingency table
Spearman's chi square test is computed to ensure that assumptions of this statistics are met⁸ as Cramer's V as well as odds ratio are derived from the Spearman's chi square test.

Odds ratio is used for calculation of effect of an independent variable on the

⁸2x2 contingency tables must not have zero-cells or cells having expected count less than 5.

dependent variable as follows (Field 2009, p. 699-700):

$$oddsratio = \frac{\frac{p_1}{1-p_1}}{\frac{p_2}{1-p_2}} \quad (4)$$

where $\frac{p_1}{1-p_1}$ represents the number of events divided by the number of non-events in group 1 and

$\frac{p_2}{1-p_2}$ represents the number of events divided by the number of non-events in group 2.

4.2.2 Building of a risk assessment model on ethnic conflict

This chapter describes the modeling strategy for the analysis of factors making ethnically motivated violence more likely. The analysis is based on the conditional logistic regression predicting the probability of the dependent variable (Field 2009, p. 266).

$$P(Y) = \frac{1}{1 + e^{-(b_0 + b_1 X_{1i})}} \quad (5)$$

where $P(Y)$ denotes the probability of Y occurring,

e is the base of natural logarithms,

b_0 is a constant of the regression model,

X_1 is a predictor variable and

b_1 is a weight of the predictor X_1 .

Firstly, variables are needed to be chosen according to the hypotheses listed above (See chapter 4.4 *Independent variables and controls*). However, only few variables can be included in the logistic regression model to make this model stable and powerful as higher number of predictors causes higher value of standard error (Hosmer & Lemeshow 2000, p. 92). Therefore, modeling strategy includes four steps to eliminate variables as follows:

1st step: detection of multicollinearity (Field 2009, p. 274)

2nd step: multiple testing: division of the original sample between training and testing set (Kleinbaum & Klein 1994, p. 166)

3rd step: computation of the maximum number of predictors according to the size of the samples (O'Brien 2007, p. 673-674)

4th step: selection of predictors having the highest value of their correlation coefficients and elimination of predictors having in their 2x2 contingency tables zero-cells or cells expected count less than 5 (Hosmer & Lemeshow 2000, p. 93) and (Field 2009, p. 696)

5th step: confounding assessment of predictors included in the model (Kleinbaum & Klein 1994, p. 166-168) - see chapter 5 *Results*

6th step: checking of residuals (Field 2009, p. 292-293) - see chapter 5 *Results*

First of all, all variables are tested to detect multicollinearity meaning that strong correlation between two or more predictors exists (Field 2009, p. 92). Variance inflation factor (*VIF*) is used to measure the level of multicollinearity (O'Brien 2007, p. 673-674) as follows:

$$VIF = \frac{1}{1 - R_i^2} \quad (6)$$

where R_i^2 is the proportion of variance the in i_{th} independent variable with the other independent variables. The

VIF value higher than 10 denotes too strong correlations between two predictors (Field 2009, p. 224). In such a case, the predictor having lower correlation coefficient with the dependent variable is eliminated.

Subsequently, the original sample is divided into training set and test set to make results more robust. Process of division follows recommendations of King & Zeng (2001) instead of technique used in many similar researches, for instance Goldstone et al. (2010), as King & Zeng (2001) discovered methodological errors in sampling strategy and recommended some corrections⁹. However, not all of their recommendations can be used because the small sample size of this research

⁹Goldstone et al. (2010) randomly added to each failure (civil war) three non-failures (year without civil war). This technique of sampling caused that the fraction of state failures in their sample is 0.255 although fraction of failures in the whole world is 0.0168. Thus their computed probabilities of state failures are too large (Goldstone et al. 2010, p. 4, 6).

does not enable it, for instance recommended Stanford method requires more than twice the number of observations than is included in the research.

The original sample counted 494 observations is divided between training set including 266 observations of the time period of 1994 and 2000 and test set including 228 observations of the time period 2001 and 2006. Afterwards, the Long method is used to compute the maximum number of predictors for each sets as follows *MedCalc* (2012). See also (Long 1997, p. 53-54).

$$N = \frac{10k}{p} \quad (7)$$

where N is the minimum number of observations,
 k denotes number of predictors and
 p is the smallest proportion of the positive or negative cases in
the population.

The maximum number of predictors are computed for the training set and the test set in the tab. 2.

TRAINING SET	TEST SET
total number of observations: 266	total number of observations: 228
number conflict cases: 41 (15.4%)	number conflict cases: 45 (19.7%)
number of no conflict cases: 225 (84.6%)	number of no conflict cases: 183 (80.3%)
$266 = \frac{10k}{0.154}$	$228 = \frac{10k}{0.197}$
$k = 4.096$	$k = 4.49$
maximum number of predictors: 4	maximum number of predictors: 4

Tab. 2 The maximum number of predictors for training set and test set

Source: Author

Subsequently, independent variables having the highest value of correlation with the dependent variable are chosen. Only variables with at least modest association can be included in logistic regression model to make this model stable (Hosmer & Lemeshow 2000, p. 93). Edge values for various types of correlations are listed in the tab. 3.

CORRELATION	VARIABLES	MODEST ASSOCIATION
Point-biserial correlation (r_{pb})	binominal and continuous variables	0.243
Cramer's V (ϕ_c)	binominal and binominal variables	0.400

Tab. 3 Modest values of correlations

Source: Cohen (1988, p. 82) & David & Sutton (2004, p. 300)

4.3 Dependent variable

Dependent variable is defined as violent behavior of members of an ethnic group directed against government such as protest or rebellion. Protest must be organized and rebellion can include also terrorism, guerrilla and civil wars (Gurr 2000, p. 227).

The dependent variable is coded as a binominal variable¹⁰. For details see *Appendix 1: Codebook of variables*. Data for the dependent variable are gained from *The Minorities at Risk Project* (2012).

4.4 Independent variables and controls

This research is based on (ethnic) group-centered approach; thus, hypotheses and variables deals with characteristics of ethnic groups instead of characteristics of states where these groups live. However, many state characteristics often significantly influence living conditions of ethnic groups. Therefore, state characteristics are included as controls. These controls are variables which are often empirically tested in similar researches mentioned in the chapter 2.4 *Quantitative studies on intra-state conflicts*.

All categorical variables are changed into a set of binominal variables to make possible to include them into the logistic regression model. See tab. 4.

To find out whether predictors have impact on the likelihood of an ethnic conflict only after a longer time, all independent variables are tested in year t , $t - 1$ and $t - 2$. Other similar studies measure also impact of predictor 5 years before

¹⁰0 - no conflict, 1 - conflict (only violent conflicts)

CHANGE	VARIABLE	VALUES		
original categorical variable	LANG	0	1	2
changed binominal variable	V1_LANG	0	1	1
changed binominal variable	V2_LANG	0	0	1

Tab. 4 Change of categorical variable into binominal variable

Source: Author

an event (conflict or no conflict) occur. Nevertheless, the observed time period (1994-2006) of this study does not enable it.

For more details about coding of variables and sources of data for each variable see *Appendix 1: Codebook of variables*.

4.4.1 Permanent exclusion

The hypothesis on the political discrimination is tested using the political discrimination index (POLDIS) which ranges from 'no discrimination' to 'exclusion and repressive policy'. Variables describing important characteristics of political regime are included as controls. First, the Polity score (POLITY) is used to measure prevalence of autocratic and democratic elements of a regime. Second, regime durability (DURABLE) measures stability of a regime. Third, governance indicators (X_GOV_IND) assessing the perception of quality of government are included to show overall satisfaction with a government.

Similarly, the hypothesis on economic discrimination is tested using the economic discrimination index (ECDIS) which ranges from 'no discrimination' to 'exclusion and repressive policy'. In addition, several variables are used to measure effect of economic development and stability. GDP per capita (GDP_PER_CAP) is used to assess overall development of state's economy. Similarly, infant mortality rate (INF_MORT_RATE) is considered to be a very good tool for overall economy appraisal as high rate of infant mortality is sign of very weak economy. Proportion of fuel export from the overall merchandise exports (FUEL_EXP) is often used variable in similar studies as there is an assumption that countries dependent on export of fuel are more prone to conflict (Collier & Hoeffler 2004, p. 6). Lastly, unemployment rate and number of the Internet users per 100 people, as

frequently used indicators, are included to assess quality and level of development of a state's economy.

To operationalize cultural discrimination, level of restrictions on use of language (CULPO2) and religion (CULPO1) are used. Both indicators range from 'no restrictions' to 'sharp restriction'.

4.4.2 Dissimilarities

The hypotheses on religious and language dissimilarities are empirically tested by assessment of influence of variable describing the level of difference of an ethnic group from the majority in case of group's religion (BELIEF) and group's language (LANG).

Difference degree of customs (CUSTOM) and physical appearance (RACE) is added to this hypotheses as controls to check whether other dissimilarities can make ethnic groups more prone to conflict too.

In addition, measure of ethnic fractionalization (F) and polarization (RQ) are included as controls to find out whether an ethnic composition of society can make ethnic conflict more likely. Fractionalization is based on the Hirshman-Herfindahl measure of concentration as follows (Schneider & Wiesehomeier 2008, p. 186). See also (Esteban, Mayoral, Ray et al. 2010, p. 3).

$$F = \sum_{i=1}^N \pi_i(1 - \pi_i) \quad (8)$$

where π_i denotes the size of ethnic group i .

On the other hand, polarization measure is calculated according to the Reynal-Querol as follows (Montalvo & Reynal-Querol 2010, p. 127):

$$RQ = 1 - \sum_{i=1}^N \left(\frac{0.5 - \pi_i}{0.5} \right)^2 \pi_i \quad (9)$$

where π_i is the size of ethnic group i .

While fractionalization measure is higher in society where more groups are split up into equally sized subgroups, the polarization measure increases when a country comprises two equally big groups (Schneider & Wiesehomeier 2008, p. 186). For more details see tab. 5.

GROUPS (SIZE)	VALUE OF F	VALUE OF RQ
A (100%)	0	0
A (50%) B (50%)	0.5	1
A (90%) B (10%)	0.09	0.36
A (60%) B (40%)	0.48	0.96
A (70%) B (30%)	0.42	0.84
A (33%) B (33%) C (33%)	0.76	0.71
A (70%) B (20%) C (10%)	0.46	0.75
A (10%) B (20%) C (30%) D (40%)	0.7	0.8
A (25%) B (25%) C (25%) D (25%)	0.75	0.25

Tab. 5 Values of fragmentation and polarization measures

Source: Computed by author using Esteban et al. (2010, p. 3) & Montalvo & Reynal-Querol (2010, p. 127)

As various studies dealing with causes of ethnic conflicts have produced different result on influence of these measures, polarization (X_RQ) as well as fragmentation measure (X_FRAG) are included in this research as controls.

4.4.3 Strong identity

To operationalize territorial concentration, indicators of group spatial distribution (GROUPCON) and regional base (GC2) are used. While the first indicator

determine the level of group's dispersion, the latter indicator says whether a regional base of an ethnic group exists or not.

Indicator of group organization for political action (GOJPA) is tested to measure an effect of higher level of group organization on the likelihood of an ethnic conflict occurrence.

Existence of an active separatist movement is evaluated by means of the separatism index (SEPX) and indicator of existence of an active separatism among kindred groups (SEPKIN). The first indicator assess the separatist activity of observed groups, the latter indicator says whether separatist efforts among kindred ethnic groups exists or not.

The hypothesis on lost autonomy is tested using the index of political autonomy grievance (AUTLOST). Values of this indicator ranges from 0 (no historical autonomy) to 6.

To operationalize experience of an ethnic group with persistent protest or conflict in previous decade, it is constructed measure of historical experience of an ethnic group with violent conflict (X_HIST_WAR_G). Value of this measure is number of years since the last violent conflict.

4.4.4 Other controls

Other controls are included as they frequently appear in empirical studies of intrastate violence (Collier & Hoeffler 2004), (Fearon & Laitin 2003), (Sambanis 2001) and (Gurr 2000): existence of dominance of one group bigger than 45%, 60%, 80% and 90% of overall population (X_DOM_45, X_DOM_60, X_DOM_80, X_DOM_90), war in neighboring state (X_WAR_NEIGHB), group proportion of overall country population (GPRO) and population density (POP_DENS).

Some special controls for the successor states of the USSR are also included: existence of a state where an ethnic group is the dominant group (X_OWN_STATE) and indicator saying whether the Russian Federation is homeland of an ethnic group (X_RF_HOME).

Originally, many other control variables were included in the research. Nevertheless, they were removed as they suffered from many missing observations. All of these variables are listed in *Appendix 1: Codebook of variables*.

4.5 Sampling

The research includes 38 politically significant ethnic groups living successor states of the Soviet Union within the time period 1994 - 2006. Ethnic group is defined as psychological community having common identity and interests; therefore, members of such a group share historical experience and some culture characteristics like belief, language, customs, values and homeland (Gurr & Harff 1994, p. 5). For the purpose of this research, data of the *The Minorities at Risk Project* (2012) of Maryland University are used meaning that only politically relevant national and minority peoples of more than 100 000 members living in countries with more than one million inhabitants are chosen for the observation (Gurr 1998, p. 15). These ethnic groups are listed in the tab. 6.

The time period is limited to 1994-2006 as data of the *The Minorities at Risk Project* (2012) are available only until 2006. The year 1994 as a beginning for observation is chosen due to fact that desirable data for successor states of the Soviet Union mostly does not exists before this time.

The database comprises in total 494 cases.¹¹

4.6 Limitations of the research

The aim of this research is to identify key parameters driving ethnic groups towards the use of violence. Subsequently, thanks to these identified parameters, the risk assessment model is built to determine the probability of the outbreak of ethnic conflict. Risk assessment models work only with background factors constituting root causes of political violence, including intra-state ethnic conflicts (Gurr 1998, p. 4). These factors create long-term conditions for ethnic conflicts, such as social and ethnic tensions (Schmid 2005, p. 132). The research does not

¹¹Observation of one ethnic group during the period one year is considered to be one case.

STATE	ETHNIC GROUP
Azerbaijan	Armenians
	Lezgins
	Russians
Belarus	Poles
	Russians
Estonia	Russians
Georgia	Abkhazians
	Adzhars
	Ossetians (South)
	Russians
Kazakhstan	Germans
	Russians
Kyrgyzstan	Russians
	Uzbeks
Latvia	Russians
Lithuania	Poles
	Russians
Moldova	Slavs
	Gagauzs
Russia	Avars
	Buryat
	Chechens
	Ingush
	Karachay
	Kumyks
	Lezgins
	Roma
	Tatars
	Tuvinians
	Yakut
Tajikistan	Russians
	Uzbeks
Turkmenistan	Russians
Ukraine	Crimean Russians
	Crimean Tatars
Uzbekistan	Russians
	Tajiks
TOTAL	38 ethnic groups

Tab. 6 List of ethnic groups included in the researchSource: Compiled by author using *The Minorities at Risk Project* (2012)

aim to predict ethnic conflicts, however, this thesis aims to determine the most dangerous combination of factors leading to ethnically motivated violence. Due to this fact, the research focuses on long-term factors which are changing very slowly. Precipitants, for instance events or other phenomena triggering ethnically motivated violence in a short time period, are not included in the research design as they are not predictable (Crenshaw 1981, p. 391).

As written above, this research is based on the rational choice theory. The key assumption of this theory is that decision-makers chose the best available action according to their preferences, which can be altruistic, selfish or even masochistic. According to the rational theory, rationality can be defined as an ability of individuals to maximize their gains. An action or a decision of a decision-maker is driven by his or her preferences ordering the best option (Bicchieri 2004, p. 183).

This thesis primarily deals with behavior of groups which can also behave as rational actors as they share collective values and preferences. Thus, groups can assess effectiveness and consequences of various decisions and tactics including use of violence (Crenshaw 1990, p. 8). Nevertheless, rational decision-making of a group can be affected by rational decision-making of individuals who are members of such a group.

In addition, it arises question about the possible deviation from rationality. Do all ethnic groups have realistic assumptions about their goals? Do they have sufficient knowledge of alternatives? It seems that decisions of some ethnic groups to fight is irrational, for instance the Chechen hopeless resistance during the second war with Russians. Nevertheless, Chechens could have less instrumental motives (Crenshaw 1990, p. 9) and different preferences. For example, their preferences can be rooted in primordial feelings. Due to this possibility, hypothesis on dissimilarity of ethnic groups to the majority is included in the the research design.

The diploma thesis does not aim to fully explain causes of ethnically motivated intra-state violence. The main purpose is to determine the most risky environment pushing ethnic groups towards the use of violence. The identification of

parameters driving ethnic groups towards the use of violence is based on the rational choice theory. Findings of this research are considered to be complementary to the other findings based on other political science approaches (Hindmoor 2010, p. 59) as results of the research does not provide full explanation of causes. In other words, this research uses results of many qualitative studies. Similarly, future qualitative studies can use results of this quantitative research to focus on the topic of ethnic conflict in more details.

This research uses the Hume's definition of causality, meaning that the cause must precede an effect and the effect cannot occur without presence of the cause (Shanks 2011, p. 95). It implies that cause can be considered as high degrees of correlation between contiguous events (Field 2009, p. 13). In addition, quantitative methods often do not provide highly significant results of statistical computation in the field of social sciences. Therefore, findings on key parameters driving ethnic groups towards the use of violence will be regarded to be correlates rather than causes ethnic violence (Hoeffler 2011, p. 1).

5 Empirical results

This chapter presents empirical results of the statistical analysis. Firstly, basic facts on ethnic groups living in successor states of the USSR are introduced. Afterwards, some key findings on of independent variables on likelihood of occurrence of ethnic conflict are provided. Subsequently, results of a regression model are presented.

5.1 Basic facts about ethnic groups

The research deals with 25 ethnic groups living in 14 states. Some of these groups live in more than one state, for instance Russians can be found in 12 states. For more details see tab. 6 in the previous chapter. 16 of total 25 ethnic groups experienced ethnic conflict at least once time during the observed time period (13 years in total). The most violent ethnic groups which were involved in an ethnic conflict are Armenians (13 years), South Ossetians (13 years), Chechens (12 years) and Abkhazians (11 years). On the other hand, 22 of 25 ethnic groups live at least one year in peace. The most suffering states from ethnic conflicts were Georgia, Russia and Azerbaijan. The most ethnic conflicts occurred during years 1994 and 2004. For more details, see tab. 7 which lists years when ethnic violence was present.

5.2 Permanent exclusion

Indicators of permanent exclusion show relatively low effect of various types of discrimination on the likelihood of ethnic conflict. The most significant results are found for $t = 0$ with exception of restrictions on use of religion and some controls which influences ethnic groups behavior mostly two years before an observed event (conflict or non-conflict).

5.2.1 Political discrimination

Computation of the odds ratio for the set of binominal variables of the political discrimination index shows very low effect on occurrence of an ethnic conflict.

Country	Ethnic group	Year
Azerbaijan	Armenians	1994-2006
Azerbaijan	Lezgins	1994, 2001, 2005
Georgia	Abkhazians	1994-2003, 2006
Georgia	Adzhars	2003-2004
Georgia	Ossetians (South)	1994-2006
Kyrgyzstan	Uzbeks	2002-2003
Latvia	Russians	1994, 2004
Moldova	Gagauzs	1994-1995
Moldova	Slavs	1994-1997
Russia	Chechens	1994-1997, 1999-2006
Russia	Ingush	2004, 2006
Russia	Karachay	1999, 2001-2006
Russia	Kumyks	2004-2006
Russia	Lezgins	1994
Tajikistan	Uzbeks	1998
Turkmenistan	Russians	2001
Ukraine	Crimean Russians	1994
Ukraine	Crimean Tatars	1999-2000, 2004
Ukraine	Russians	2004

Tab. 7 List of conflictsSource: *The Minorities at Risk Project* (2012)

According to these results, non-existence of discrimination as well as presence of neglect or remedial policies very slightly decreases occurrence of ethnic conflicts. On the other hand, ethnic groups experienced social exclusion or neutral policy were 1.7 times more involved in ethnic conflict than other groups. In addition, if an ethnic group was suffering from repressive policy, the odds of its involvement in ethnic conflict is 2.1 times higher. See tab. 8 and tab. 9.

	POLDIS_V1=1	POLDIS_V2=1	POLDIS_V3=1	POLDIS_V4=1
POLDIS_V1=0	1.170 ↓			
POLDIS_V2=0		1.443 ↓		
POLDIS_V3=0			1.663 ↑	
POLDIS_V4=0				2.098 ↑

Tab. 8 Odds ratio of the index of political discrimination and ethnic conflict

Source: Author

Statistical results of controls of political discrimination show that type and durability of regime and governance indicators matter in case of conflict. Relationship

	X_CON_PROT_REB		
	Missing %	Chi-square test	Cramer's V
POLDIS_V1	1.2%	0.379	0.028
POLDIS_V2	1.2%	1.624	0.058
POLDIS_V3	1.2%	0.981	0.045
POLDIS_V4	1.2%	3.982*	0.090*

df=1, * $p < .05$, ** $p < .01$, *** $p < .001$

Tab. 9 Chi-square test and Cramer's V of the index of political discrimination and ethnic conflict

Source: Author

of regime type and presence of ethnic conflict is not defined as inverted U-shape curve, contrary to findings of Hegre et al. (2001). As shown fig. 5, ethnic groups were involved in ethnic conflicts much more often in the worst autocracies. Their odds ratio was 8.8 times higher than in other regimes. On the other hand, ethnic groups living in strong democracies were involved in ethnically motivated violence rarely. Their odds of ethnic conflict was 6.6 times lower (in case of POLITY=18¹²). Fig. 5 also shows that states with lower level of democracy (POLITY=14 and 15) have slightly higher probability of occurrence of an ethnic conflict.

¹²Odds ratio for POLITY=19 and 20 cannot be computed due to zero cells in their contingency table. Nevertheless, values of Cramer's V are very similar as in case of POLITY=18.

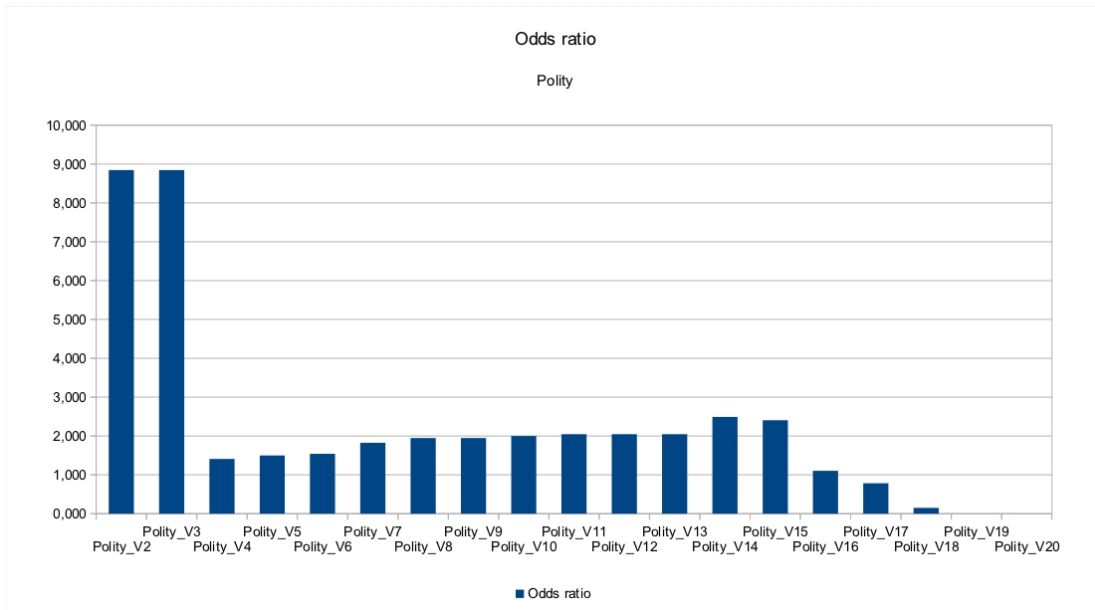


Fig. 5 Values of odds ratio of POLITY

Source: Author's calculation

Governance indicators and stability of regime are measured as contiguous and have non-normal distribution. It means that odds ratio as well as point-biserial correlation coefficient cannot be computed. Nevertheless, their effect on occurrence of ethnic conflicts can be at least partly explored using descriptive statistics. Governance indicators measuring perception of political stability, level of accountability, government effectiveness, regulatory quality and ruler of law show that people living in states suffering more ethnic conflicts have overall better level of governance. However, difference between average values of governance indicators in countries where ethnic conflicts are present and those countries where are no conflicts is very small. Similarly, more durable regimes seems to be more prone to violent behavior of ethnic groups. However, average values of states suffering from ethnic conflicts are very similar to states without these conflicts.

To sum up, political discrimination makes ethnic groups more prone to violent behavior. Nevertheless, statistical results are not robust. On the other hand, type of regime plays significantly important role. Ethnic groups living in harsh autocracies tend much more to conflict than ethnic groups living in strong democracies. Regime durability and governance indicators do not play any significant

role in case of probability of an ethnic conflict occurrence.

5.2.2 Economic discrimination

Statistics run for economic discrimination index prove that ethnic groups exposed economic exclusion or repressive policy have the odds of its involvement in ethnic conflict 2.7 times higher than less discriminated groups. On the other hand, results also show that neutral policy, social exclusion, neglect and remedial policies as well as no discrimination make ethnic groups slightly less prone to violence. See tab. 10 and tab. 11.

	ECDIS_V1=1	ECDIS_V2=1	ECDIS_V3=1	ECDIS_V4=1
ECDIS_V1=0	1.882 ↓			
ECDIS_V2=0		1.506 ↓		
ECDIS_V3=0			1.339 ↓	
ECDIS_V4=0				2.697 ↑

Tab. 10 Odds ratio of the index of economic discrimination and ethnic conflict

Source: Author

	X_CON_PROT_REB		
	Missing %	Chi-square test	Cramer's V
ECDIS_V1	2%	5.481*	0.106*
ECDIS_V2	2%	2.194	0.067
ECDIS_V3	2%	0.824	0.041
ECDIS_V4	2%	0.010	0.005

df=1, * $p < .05$, ** $p < .01$, *** $p < .001$

Tab. 11 Chi-square test and Cramer's V of the index of economic discrimination and ethnic conflict

Source: Author

All controls of economic discrimination are measured as contiguous and deviate from non-normal distribution. Therefore, odds ratio as well as point-biserial correlation coefficient cannot be computed. Their effect on ethnic conflict is assessed using descriptive statistics, similarly to controls of political discrimination.

Indicators of level of economic development show that ethnic groups more prone to violent behavior live in poorer countries, in general. Infant mortality rate is

higher in countries suffering from ethnic conflicts. However, information value of this control is very low as the control has more than 60% missing cases. Nevertheless, the fact, that ethnic groups involved in a conflict mostly live in states with lower economy, is supported by findings on indicator of GDP per capita. States suffering from ethnic conflicts have significantly lower mean as well as median of GDP per capita than other countries. More distinct results between these two groups of states are found in measured period $t = -2$. Thus, it can be assumed that low level of economy can have significant effect from longer perspective.

Level of unemployment as well as proportion of fuel export from the overall merchandise exports are usually considered as indicators making countries more prone to conflict as is explained in the previous chapters. However, medians as well as means of level of unemployment in countries suffering from ethnic conflict and those without ethnic conflicts are very similar. Thus, it cannot be supposed that higher unemployment is a contributory factor to ethnic conflicts in successor states of the USSR. On the other hand, results about fuel export shows that countries experienced ethnic conflict have a higher proportion of fuel export from the overall merchandise exports. The difference of mean between these two groups of countries is very small; however, the difference of median ranges from 8 - 12% for $t = -1$ and $t = -2$. Data also prove trend that proportion of fuel export has significant effect from longer perspective.

To sum up, economic exclusion or repressive policy make ethnic groups more prone to ethnic conflict. Similarly to political discrimination, statistical results are not robust. Controls show that countries with lower economic development suffer from ethnic conflict much more than richer countries. Statistical results also prove that higher proportion of fuel export from the overall merchandise exports can be considered as a risk factor for ethnic conflicts. According to the results, both controls have significant effect mainly from longer perspective.

5.2.3 Cultural discrimination

Statistical results show that cultural discrimination has very low effect on outbreak of ethnic conflicts. Restriction on religion influences ethnic groups behavior mostly two years before an observed event (conflict or non-conflict) while restric-

tion on language effects ethnic groups mostly in the same year as an observed event.

Restrictions on religion does not increase probability of an ethnic conflict occurrence in case of no restrictions as well as informal restrictions. Somewhat formal restrictions on religion makes ethnic groups more prone to conflict behavior only very slightly whereas ethnic groups suffering from sharp restriction on religion tends to violent behavior more than less restricted groups. Nevertheless, odds ratio was not possible to compute due to the presence of a zero cell. Pearson's chi square test and Cramer's V shows little bit higher effect of sharp restriction than somewhat formal restriction; however, these values are relatively low. Thus, it can be concluded that restrictions on use of religion do not play any important role in case of ethnic conflict. See tab. 12 and tab. 13.

	CULPO1_V1=1	CULPO1_V2=1	CULPO1_V3=1
CULPO1_V1=0	1.049 ↓		
CULPO1_V2=0		1.319 ↑	
CULPO1_V3=0			x (zero cell)

Tab. 12 Odds ratio of religion discrimination and ethnic conflict

Source: Author

	X_CON_PROT_REB		
	Missing %	Chi-square test	Cramer's V
CULPO1_V1	22.9%	0.010	0.005
CULPO1_V2	22.9%	0.171	0.021
CULPO1_V3	22.9%	4.785* <i>p</i>	0.112* <i>p</i>

df=1, **p* < .05, ***p* < .01, ****p* < .001

Tab. 13 Chi-square test and Cramer's V of religion discrimination and ethnic conflict

Source: Author

Findings on restrictions on use of language are very similar. No restriction, informal as well as formal somewhat restrictions do not increase probability of ethnic groups' involvement in conflict while sharp restriction have an opposite. However, odds ratio is not possible to compute due to the presence of a zero cell. Nevertheless, Pearson's chi square test and Cramer's V show small negative effect on

outbreak of an ethnic conflict. See tab. 14 and tab. 15.

	CULPO2_V1=1	CULPO2_V2=1	CULPO2_V3=1
CULPO2_V1=0	1.546 ↓		
CULPO2_V2=0		1.083 ↓	
CULPO2_V3=0			x (zero cell)

Tab. 14 Odds ratio of language discrimination and ethnic conflict

Source: Author

	X_CON_PROT_REB		
	Missing %	Chi-square test	Cramer's V
CULPO2_V1	7.5%	2.668	0.076
CULPO2_V2	7.5%	0.087	0.014
CULPO2_V3	7.5%	0.658	0.036* <i>p</i>

df=1, **p* < .05, ***p* < .01, ****p* < .001

Tab. 15 Chi-square test and Cramer's V of language discrimination and ethnic conflict

Source: Author

To sum up, restriction on use of language and religion have only very low effect on an outbreak of ethnic conflicts.

5.3 Dissimilarity

Language dissimilarity of an ethnic group to the majority seems to have low effect on outbreak of an ethnic conflict. Statistics run for language dissimilarity prove that ethnic groups speaking multiple languages and at least one of their languages is different from the majority have the odds of their involvement in ethnic conflicts 2.3 times higher than assimilated groups. On the other hand, groups speaking primarily one language which is different from the majority are 2.5 times less involved in ethnic conflicts than assimilated groups and groups speaking multiple languages from which at least one of their languages is different from majority. The most significant results are found for $t = 0$.

In case of religious dissimilarity to majority, groups belonging to a different sect within one religion are 16.7 time more prone to violent behavior than groups

	LANG_V1=1	LANG_V2=1
LANG_V1=0	1.662 ↑	2.300 ↑
LANG_V2=0		2.452 ↓

Tab. 16 Odds ratio of language dissimilarity and ethnic conflict

Source: Author

	X_CON_PROT_REB		
	Missing %	Chi-square test	Cramer's V
LANG_V1	0%	0.658	0.036
LANG_V2	0%	11.199***	0.151***

df=1, * $p < .05$, ** $p < .01$, *** $p < .001$

Tab. 17 Chi-square test and Cramer's V of language dissimilarity and ethnic conflict

Source: Author

belonging to same sect or to different sect as majority. Belief in different religion does not matter as groups believing in different religion are not more or less prone to conflict. The most significant results are also found for $t = 0$ as in case of language. See tab. 16-19.

	BELIEF_V1=1	BELIEF_V2=1	BELIEF_V3=1
BELIEF_V1=0	3.227 ↑	16.667 ↑	
BELIEF_V2=0		3.125 ↑	
BELIEF_V3=0			1.165 ↑

Tab. 18 Odds ratio of religious discrimination and ethnic conflict

Source: Author

Statistical tests show that also some controls set for the hypothesis on dissimilarity can influence the likelihood of ethnic conflict occurrence. All controls are more influential in $t = 0$ with exception of ethnic polarization and fractionalization. As more distinct physical appearance an ethnic group has, the likelihood of an ethnic conflict is lower. Ethnic groups belonging to physically distinguished subtype of the same or different racial stock are 3.1 times less prone to violent behavior. In addition, ethnic groups which belong to different racial stock tend to ethnic conflicts approximately 12 times less than groups of the same racial stock. On the other hand, findings show that different groups' customs do not play any

	X_CON_PROT_REB		
	Missing %	Chi-square test	Cramer's V
BELIEF_V1	0%	13.215***	0.151***
BELIEF_V2	0%	16.925***	0.164***
BELIEF_V3	0%	0.423	0.029

df=1, * $p < .05$, ** $p < .01$, *** $p < .001$

Tab. 19 Chi-square test and Cramer's V of religious discrimination and ethnic conflict

Source: Author

role. For more details see tab. 20-23.

	RACE_V1=1	RACE_V2=1	RACE_V3=1
RACE_V1=0	3.056 ↓		
RACE_V2=0		12.308 ↓	
RACE_V3=0			11.955 ↓

Tab. 20 Odds ratio of physical appearance differences and ethnic conflict

Source: Author

	X_CON_PROT_REB		
	Missing %	Chi-square test	Cramer's V
RACE_V1	0%	11.637***	0.153***
RACE_V2	0%	34.945***	0.266***
RACE_V3	0%	17.951	0.191

df=1, * $p < .05$, ** $p < .01$, *** $p < .001$

Tab. 21 Chi-square test and Cramer's V of physical appearance differences and ethnic conflict

Source: Author

Other controls, namely ethnic fractionalization and polarization, are measured as contiguous and have non-normal distribution. Therefore, odds ratio as well as point-biserial correlation coefficient cannot be computed. Their effect on ethnic conflict is assessed using descriptive statistics as in previous cases.

Both measures of ethnic polarization as well as fractionalization are lower in countries suffering from ethnic conflicts than in countries where ethnic groups behave violently. Differences between these two groups of countries are highest

	CUSTOM=1
CUSTOM=0	1.294 ↓

Tab. 22 Odds ratio of different customs and ethnic conflict

Source: Author

	X_CON_PROT_REB		
	Missing %	Chi-square test	Cramer's V
CUSTOM	0%	1.167	0.049
		df=1, * $p < .05$, ** $p < .01$, *** $p < .001$	

Tab. 23 Chi-square test and Cramer's V of different customs and ethnic conflict

Source: Author

in the measured period $t = -2$. Thus, it can be suggested that effect of both indicators can have effect from longer perspective.

To sum up, statistical analysis shows that ethnic groups speaking multiple languages and at least one of their languages is different from majority tend to violent behavior contrary to groups speaking primarily one language which is different from the majority. Interestingly, controls show that groups having higher dissimilarity of physical appearance to majority are less violent. Difference in groups' customs from majority does not play any role. Lastly, groups involved in ethnic conflicts live mostly in less fragmented and polarized countries.

5.4 Strong identity

According to the statistical analysis, strong identity of ethnic groups makes these groups significantly more prone to conflicts. All indicators have the highest impact in the measure period $t = 0$. As indicators of strong identity are analyzed territorial base and concentration, level organization, the index of political autonomy grievances, existence of an active separatist movement within an observed group and among kindred groups and experience of an ethnic group with persistent protests or conflicts in previous decade.

Statistical analysis shows that territorial concentration is very relevant risk factor as more territorially concentrated groups tend more to violent behavior. Groups

having their own regional base are 3.5 times more prone to violence. Level of territorial concentration supports this finding as groups' spatial distribution plays very important role too. Higher territorial concentration of ethnic groups seems to be an influential contribution factor to higher likelihood of ethnic conflicts occurrence. If a majority of an ethnic group is concentrated in one region, the odds of the group's involvement in an ethnic conflict is 7.2 times higher than in case of dispersed ethnic groups, primarily urban groups and groups whose only minority lives in one region. In addition, ethnic groups which are concentrated only in one region and not dispersed tend 8.5 times more to ethnic conflicts than other territorially less concentrated ethnic groups. See tab. 24-27.

	GROUPCON_V1=1	GROUPCON_V2=1	GROUPCON_V3=1
GROUPCON_V1=0	9.667 ↑		
GROUPCON_V2=0		7.190 ↑	
GROUPCON_V3=0			3.086 ↑

Tab. 24 Odds ratio of territorial concentration and ethnic conflict

Source: Author

	X_CON_PROT_REB		
	Missing %	Chi-square test	Cramer's V
GROUPCON_V1	0%	7.453**	0.123**
GROUPCON_V2	0%	26.573***	0.232***
GROUPCON_V3	0%	21.527***	0.209***

df=1, * $p < .05$, ** $p < .01$, *** $p < .001$

Tab. 25 Chi-square test and Cramer's V of territorial concentration and ethnic conflict

Source: Author

	GC2=1
GC2=0	3.500 ↑

Tab. 26 Odds ratio of regional base and ethnic conflict

Source: Author

The level of groups' organization is one of the most influential factor affecting the groups' involvement in ethnic conflict. According to statistical results, the higher

		X_CON_PROT_REB		
		Missing %	Chi-square test	Cramer's V
GC2		38.5%	6.142*	0.180*

df=1, * $p < .05$, ** $p < .01$, *** $p < .001$

Tab. 27 Chi-square test and Cramer's V of regional base and ethnic conflict

Source: Author

the level of groups organization the more the group is prone to ethnic conflict. Ethnic groups being organized at least in political parties are 21.4 times more prone to ethnic conflicts. Furthermore, groups having their own political parties as well as at least limited support of a military organization tend to violence 42.7 times more than less organized groups. On the other hand, groups organized primarily in militant organizations are 34.5 times often involved in conflicts. To sum up this part, groups being organized primarily in political organizations with at least limited support of a military organization are the most frequently engaged in ethnic conflicts. For more details see tab. 28 and tab. 29.

	GOJPA_V1 =1	GOJPA_V2 =1	GOJPA_V3 =1	GOJPA_V4 =1	GOJPA_V5 =1
GOJPA_V1=0	x (zero cell)				
GOJPA_V2=0		21.385 ↑			
GOJPA_V3=0			42.744 ↑		
GOJPA_V4=0				34.783 ↑	
GOJPA_V5=0					x (zero cell)

Tab. 28 Odds ratio of level of political organization and ethnic conflict

Source: Author

In case of hypothesis on lost autonomy, statistics run for the index of political autonomy grievances show that lost autonomy makes ethnic groups more prone to ethnic conflicts to some extent. Ethnic groups having value of this index higher than two are 1.8 times more prone to ethnic conflicts than ethnic groups having lower score of this indicator. In addition, if an ethnic group has value higher than 3, the odds of its involvement in ethnic conflict is 8.4 times higher than ethnic groups having lower score of this indicator. Unfortunately, odds ratio as well as other statistics cannot be computed for other values of this indicator as AUTOST_V4, AUTLOST_V5 and AUTLOST_V6 are constant. Due to the

	X_CON_PROT_REB		
	Missing %	Chi-square test	Cramer's V
GOJPA_V1	23.3%	5.886*	0.125*
GOJPA_V2	23.3%	18.423***	0.220***
GOJPA_V3	23.3%	161.994***	0.654***
GOJPA_V4	23.3%	47.153***	0.353***
GOJPA_V5	23.3%	4.755*	0.112*

df=1, * $p < .05$, ** $p < .01$, *** $p < .001$

Tab. 29 Chi-square test and Cramer's V of level of political organization and ethnic conflict

Source: Author

fact that index of political autonomy grievances is a composite of three other variables having weight according to the level of seriousness of the lost autonomy (For details see *Appendix 1: Codebook of variables*), it cannot be determined which type of lost of autonomy matters the most. It can be only concluded that the most severe loss of autonomy do not play so important role. For more details see tab. 26 and tab. 27.

	AUTLOST_V1 =1	AUTLOST_V2 =1	AUTLOST_V3 =1	AUTLOST_V4 =1
AUTLOST_V1=0	x (zero cell)			
AUTLOST_V2=0		1.843 ↑		
AUTLOST_V3=0			8.431 ↑	
AUTLOST_V4=0				x (constant)

Tab. 30 Odds ratio of the index of political autonomy grievances and ethnic conflict

Source: Author

Existence of an active separatist movement increases the likelihood of occurrence of ethnic conflicts. Ethnic groups having an active separatist or autonomy movement during past 25 years have the odds of its involvement in ethnic conflict 2.3 times higher. On the other hand, existence of a separatist or autonomy movement among kindred groups does not affect likelihood of ethnic conflict. See tab. 28-31.

Lastly, experience of an ethnic group with persistent protests or conflicts in the

	X_CON_PROT_REB		
	Missing %	Chi-square test	Cramer's V
AUTLOST_V1	4%	4.325*	0.096*
AUTLOST_V2	4%	3.639	0.088
AUTLOST_V3	4%	76.829***	0.401***
AUTLOST_V4	4%	x (constant)	x (constant)

df=1, * $p < .05$, ** $p < .01$, *** $p < .001$

Tab. 31 Chi-square test and Cramer's V of level of the index of political autonomy grievances and ethnic conflict

Source: Author

	SEPX_V1=1	SEPX_V2=1	SEPX_V3=1
SEPX_V1=0	3.3787 ↑		
SEPX_V2=0		11.406 ↑	
SEPX_V3=0			11.406 ↑

Tab. 32 Odds ratio of the index of separatism and ethnic conflict

Source: Author

previous decade seems to be the most influential factor increasing the probability of occurrence of ethnic conflicts. Generally, ethnic groups experiencing a conflict are more prone to violence. On the other hand, groups which were not involved in any conflict for five or more years have the odds of its involvement in ethnic conflicts 81,8 times lower than groups suffering from ethnic conflict in the previous year. According to the statistical results, ethnic conflicts have tendency to repeat mostly in first, third and fourth year since the last conflict. For more details see tab. 32 and tab. 33.

To sum up, statistical analysis proves very important influence of strong identity on the occurrence of ethnic conflicts. Odds ratio results show that the most influential is the level of groups' organization. Nevertheless, lost autonomy, presence of separatist movement, regional base and territorial concentration matter too.

5.5 Other controls

As controls which are not related to any hypotheses are also tested existence of dominance of one group bigger than 45%, 60%, 80% and 90% of overall population, war in neighboring state, population density, existence of a state where

	X_CON_PROT_REB		
	Missing %	Chi-square test	Cramer's V
SEPX_V1	0%	5.476**	0.105**
SEPX_V2	0%	46.025***	0.305***
SEPX_V3	0%	46.025***	0.305***

df=1, * $p < .05$, ** $p < .01$, *** $p < .001$

Tab. 33 Chi-square test and Cramer's V of the index of separatism and ethnic conflict

Source: Author

	SEPKIN=1
SEPKIN=0	1.237 ↑

Tab. 34 Odds ratio of separatism among kindred groups and ethnic conflict

Source: Author

an ethnic group is the dominant group and lastly indicator saying whether the Russian Federation is homeland of an ethnic group. All additional controls have the highest impact in the measure period $t = 0$.

Statistical analysis of the indicator assessing an influence of a state where an ethnic group is the dominant group shows that presence of such a state decreases 3.8 times the likelihood of occurrence of conflicts where this group is involved. Fact whether such a state shares borders with the state where the minority lives does not matter. It seems that much higher calming effect has the Russian Federation as a homeland of ethnic groups comparing to 'other homelands of non-Russian ethnic groups'. Russians as ethnic groups are 6.8 times less prone to conflict than other groups. However, this effect can be caused by different factors effecting Russian minorities engagement in conflicts than the role of the Russian Federation. See tab. 34-37.

Population density is measured as contiguous and unfortunately has non-normal distribution. Therefore, odds ratio as well as point-biserial correlation coefficient cannot be computed. Effect of this indicator on ethnic conflict is evaluated using descriptive statistics. Values of median and mean show that states experienced ethnic conflicts have higher population density; however, the real effect is unknown due to the non-normal distribution of this indicator.

		X_CON_PROT_REB		
		Missing %	Chi-square test	Cramer's V
SEPKIN		0%	0.810	0.041
df=1, * $p < .05$, ** $p < .01$, *** $p < .001$				

Tab. 35 Chi-square test and Cramer's V of separatism among kindred groups and ethnic conflict

Source: Author

	X_HIST WAR_G V1=1	X_HIST WAR_G V2=1	X_HIST WAR_G V3=1	X_HIST WAR_G V4=1	X_HIST WAR_G V5=1
X_HIST_WAR_G V1=0	6.497 ↓				
X_HIST_WAR_G V2=0		41.744 ↓			
X_HIST_WAR_G V3=0			31.904 ↓		
X_HIST_WAR_G V4=0				30.026 ↓	
X_HIST_WAR_G V5=0					24.949 ↓

Tab. 36 Odds ratio of experience with persistent protests or conflicts in previous decade and ethnic conflict

Source: Author

Statistical analysis of effect of a dominance of one group on likelihood of ethnic conflicts proves that states having one ethnic group comprising more than 60% of overall population have the odds of ethnic conflict occurrence 3.2 times higher than states with less dominant group. Similarly, ethnic group consisting of more than 90% majority increases 3.4 times the likelihood of an ethnic conflicts. These results do not support findings on fragmentation and particularly polarization measure. Due to the fact that effect of polarization and fragmentation is assessed only by descriptive statistics, findings on dominance of one group are considered to be superior to them as odds ratio and Cramer's V have higher information value. See tab. 38 and tab. 39.

Lastly, statistical results do not prove any significant influence of the presence of conflict in neighboring states. For further details see tab. 40 and tab. 41.

	X_CON_PROT_REB		
	Missing %	Chi-square test	Cramer's V
X_HIST_WAR_G_V1	0%	256.839***	0.721***
X_HIST_WAR_G_V2	0%	213.152***	0.657***
X_HIST_WAR_G_V3	0%	182.844***	0.608***
X_HIST_WAR_G_V4	0%	169.698***	0.586***
X_HIST_WAR_G_V5	0%	149.696***	0.550***

df=1, * $p < .05$, ** $p < .01$, *** $p < .001$

Tab. 37 Chi-square test and Cramer's V of experience with persistent protests or conflicts in previous decade and ethnic conflict

Source: Author

	X_OWN_STATE_V1=1	X_OWN_STATE_V2=1
X_OWN_STATE_V1=0	3.772 ↓	
X_OWN_STATE_V2=0		1.764 ↓

Tab. 38 Odds ratio of existence state where an ethnic group is the dominant group and ethnic conflict

Source: Author

To sum up, presence of a state where an ethnic group is the dominant group has significant calming effect on the likelihood of ethnic conflict. The Russian Federation as homeland of ethnic groups has calming influence as well. On the other hand, higher population density and existence of dominance of one group bigger than 60%, and 90% of overall population increase the odds of an outbreak of ethnic conflict.

5.6 Factors that matter III

The previous chapter presented results of odds ratio, Cramer's V and Pearson's chi-square test, discrimination as motivation and strong identity as basement for collective action play important role in determination of risk factors of ethnic conflicts. Thus, it can be written that instrumentalist approach fairly successfully works in setting risk factors of ethnic conflicts in successor states of the USSR. Due to the groups' experience with the Soviet 'ethnofederalism', demands for autonomy or independence can be rather explained as efforts to gain more resources comparing to other groups than process of communal self-discovery.

	X_CON_PROT_REB		
	Missing %	Chi-square test	Cramer's V
X_OWN_STATE_V1	0%	28.897***	0.242***
X_OWN_STATE_V2	0%	8.611**	0.132**

df=1, * $p < .05$, ** $p < .01$, *** $p < .001$

Tab. 39 Chi-square test and Cramer's V of existence state where an ethnic group is the dominant group and ethnic conflict

Source: Author

	X_RF_HOME=1
X_RF_HOME=0	6.760 ↓

Tab. 40 Odds ratio of the Russian Federation as a homeland and ethnic conflict

Source: Author

However, primordialist agenda can support instrumental demands.

Due to the fact that the majority of variables and controls are more influential in $t = 0$, it could be possible to consider them more as consequences of conflicts than causes. Nevertheless, all indicators are background factors which change only very slowly and mostly within longer period than one or two years. However, influential factors making ethnic groups more prone to conflict are regarded as risk factors increasing the probability of an ethnic conflict.

The research evaluates exclusion, dissimilarity and identity of ethnic groups as a potential risk factors of ethnic conflicts in the successor states of the Soviet Union. Statistical analysis shows interesting results proving the importance of strong identity and political and economic discrimination of ethnic groups as risk factors making ethnic groups more prone to conflict.

Political and economical exclusion matter in case of ethnic conflicts; however, statistical results are not robust. On the other hand restrictions on use of language and religion do not seem to be important factors. It can be supported by the fact that ethnic tensions in Moldova and the Baltic states, where Russian speaking communities have restricted their use of Russian, are not hot. In case of restriction on religion, although conflicts in Chechnya and Abkhazia are often

X_RF_HOME	X_CON_PROT_REB		
	Missing %	Chi-square test	Cramer's V
	0%	34.053***	0.263***
df=1, * $p < .05$, ** $p < .01$, *** $p < .001$			

Tab. 41 Chi-square test and Cramer's V of the Russian Federation as a homeland and ethnic conflict

Source: Author

	DOM_45 =1	DOM_60 =1	DOM_80 =1	DOM_90 =1
DOM_45=0	x (zero cell)			
DOM_60=0		3.178 ↑		
DOM_80=0			1.105 ↓	
DOM_90=0				3.401 ↑

Tab. 42 Odds ratio of the index of dominance of one group and ethnic conflict

Source: Author

described as conflicts between Christians and Muslims, these conflicts have very different causes than restrictions on religion. However, religion affiliation is important marker of belligerents in these conflicts.

These findings do not fully violated assumptions of Gurr (2000) on causes of ethno-political rebellion; however, statistical results of this research do not prove so high importance of discrimination as studies of Gurr (2000) and Gurr (1993). Similarly, this research supports only partly Tishkov's suggestions on influence of economic factors in case of an outbreak of ethnic conflicts. Tishkov (1996, p. 59, 62) suggests that economical discrimination is not powerful enough to trigger an ethnic conflict, contrary to social discrimination. Nevertheless, statistical analysis shows very similar influence of political as well as economic discrimination on likelihood of ethnic conflicts. These results are not robust; however, economic and political discrimination are not negligible contributing factors to the likelihood of ethnic conflicts.

Contrary to findings of Hegre et al. (2001), the relationship of regime type and presence of ethnic conflict is not defined as inverted U-shape curve. More ethnic conflicts are observed in regimes which are the most unfriendly to rights than in

	X_CON_PROT_REB		
	Missing %	Chi-square test	Cramer's V
DOM_45	0%	1.280	0.051
DOM_60	0%	5.265*	0.103*
DOM_80	0%	0.179	0.019
DOM_90	0%	12.460***	0.159***

df=1, * $p < .05$, ** $p < .01$, *** $p < .001$

Tab. 43 Chi-square test and Cramer's V of dominance of one group and ethnic conflict

Source: Author

	X_WAR_NEIGHB=1
X_WAR_NEIGHB=0	1.059 ↑

Tab. 44 Odds ratio of war in neighboring state and ethnic conflict

Source: Author

weak regimes. On the other hand, results on level of economy confirm findings of many other similar studies that poor countries tend more to conflicts (Fearon & Laitin 2003, p. 75-76).

Results on dissimilarity of ethnic groups to majority have no clear explanation. Statistical analysis shows that groups speaking multiple languages from which at least one is different from majority are more prone to violent behavior. Such groups are for instance Chechens, Ossetians and Abkhazians. In other words, groups which are mostly involved in ethnic conflicts in the successor states of the USSR. Thus, this fact can affect results on language dissimilarity. Similar explanation can be used for findings on different physical appearance showing that groups belonging to a different racial stock than majority are 12 times less engaged in conflicts. On the other hand, groups belonging to different sects than majority tend to violent behavior 16.7 times more than other groups. That is not case of Chechens or Abkhazians; therefore, this indicator can be important risk factor.

Ethnic polarization and fragmentation as controls of dissimilarity show that less fragmented and polarized societies are less prone to conflicts. Contrary to these findings, states with dominance of one group comprising more than 60% or 90%

	X_CON_PROT_REB		
	Missing %	Chi-square test	Cramer's V
X_WAR_NEIGHB	0%	0.051	0.010

df=1, * $p < .05$, ** $p < .01$, *** $p < .001$

Tab. 45 Chi-square test and Cramer's V of war in neighboring state and ethnic conflict

Source: Author

of overall population tend more to ethnic conflicts than other countries. As noted above, results of dominance of one group are considered to be superior to findings on polarization and fragmentation due to the fact that effect of polarization and fragmentation is assessed only by descriptive statistics. Majorities having dominance more than 90% usually size controls over their country. Keep in mind that majority of ethnic groups live in non-democratic countries or countries having a very low standard of democracy, such strong majorities can very easily apply exclusivist demands which can threatened minorities. On the other hand, majorities comprising more than 60% can be still challenged as they are relatively weak in number of total population.

Identity naturally plays a very important role. Territorial base and territorial concentration, level organization, the index of political autonomy grievances, existence of an active separatist movement and experience of an ethnic group with persistent protests or conflicts in the previous decade make significantly ethnic groups more prone to conflict. These findings can be supported by the cases of Chechnya and Tatarstan. Both Tatars and Chechens have strong shared identity rooted in common culture, customs, language and history, their political leaders had support from movements for independence in their demands for secession from the Russian Federation. Nevertheless, only Chechens decided to fight for independence. Contrary to Tatars, Chechens experienced many bloody crusades of Russia and were forcibly deported during the World War II from their homeland. In addition, the majority of Chechens is territorially concentrated in the Chechen Autonomous Republic whereas only half of Tatars live in the Autonomous Republic of Tatarstan.

Lastly, presence of a state where an ethnic group is the dominant group sig-

nificantly decrease the likelihood of ethnic conflict. The Russian Federation as homeland of ethnic groups has calming influence as well. Such states can play a role of protector of their compatriots. For instance, Russian political leaders often publicly announce that well-being of Russians living outside of the Russian Federation is a matter of their interest. Moreover, successor states of the USSR which want or need to have good relations with the Russian Federation cannot harshly discriminate Russians living within the borders of their countries.

To sum up, ethnic groups which mostly prone to conflict have first of all strong identity providing them base for collective action as well as source of grievance. Political and economic discrimination of such groups can increase the likelihood of their involvement in ethnic conflict. States mostly threatened by ethnic conflicts are harsh autocracies, poor economies, countries having high population density and one dominant ethnic groups comprising more than 60% or 90% of overall population.

5.7 Ethnic groups in conflict

The previous chapters describe and analyze relevant risk factors making ethnic groups more prone to conflict. Case of Chechnya and Tatarstan are often compared as both ethnic groups have very similar characteristics and shared similar negative attitude towards the newly established Russia. Nevertheless, only Chechens decided to take up arms and fight for their sovereignty from the Russian Federation.

Results of this research show two main differences between these two ethnic groups. First, Chechens live in one region contrary to Tatars. Thus, according to this research level of territorial concentration of Chechens make them 7.2 times more prone to conflict comparing to Tatars who are only 3.1 times more prone to conflict as they are more dispersed. Second, both ethnic groups have different level of political organization. While Tatars are represented primarily by a political movement, Chechens are represented not only by political movement but also military organization. Thus, due to this differences, Chechens are 34.8 times more prone to conflict while Tatars 21.3 times. On the other hand, both

groups have their own separatist movement¹³ and lost their autonomy¹⁴. To sum up this two cases, both ethnic groups have motivation for seeking independence from Russia; however, Chechens have higher potential for action thanks to their territorial concentration and political as well as military organization.

Analysis of conflicts lasting only one or two years proves also importance of a kind of motivation as well as potential for action. Furthermore, strengthening of state restrictions, state discrimination or increase of group's level of organization precede majority of these conflicts. For instance, Russians living in Turkmenistan rebelled in 2001. Political and economic discrimination as well as restrictions on use of language increased in 2001. Similarly, Russians residing in Ukraine were involved in violent actions against government in 2004 as restrictions on use of the Russian language were introduced in this year. In addition, many ethnic groups were engaged in ethnic conflicts in the same year when the level of their organization significantly increased, for example, Kumyks in Russia in 2004 and Uzbeks in Kyrgystan in 2002.

Data on ethnic groups in conflicts also shows that all groups involved in the most severe conflicts lasting more than five years lost their autonomy¹⁵, for instance Chechens, South Ossetians and Abkhazians. Thus, it can be written that the desire to gain independence or at least autonomy is the leading motivation of these groups to take up arms. Similarly, groups involved in the most severe conflicts lasting more than five years are represented by a separatist movement and have relatively high level of organization consisting of a political party and military organizations. For example, many Chechen political leaders have their own private armies which destabilized security situation in Chechnya as well as attacked the Russian army during the 90s.

To sum up, it can be suggested that permanent exclusion and higher level of groups' organization can trigger short ethnic conflicts whereas lost autonomy, presence of separatist movement as well as groups' political organization consisting of a political party and military organizations can be behind the most severe

¹³SEPX=3 (Chechens as well as Tatars)

¹⁴AUTLOST=2 (Chechens as well as Tatars)

¹⁵The value of the index of autonomy grievance is not lower than 2 in case of these groups.

conflicts lasting more than five years.

5.8 Risk assessment model

This chapter describes building of the logistic regression model and assess its ability to predict the outcome variable.

5.8.1 Selection of predictors

As written above, maximally four predictors can be chosen for the logistic regression. Originally, at least modest association between predictors and outcomes was demanded. Nevertheless, only two variables reach this value. Thus, the edge value is changed to 0.200 to test more predictors¹⁶. To ensure higher reliability of results of logistic regression, multiple testing is used. Thus, the original sample is divided between training and testing set. Afterwards, new values of Cramer's V and Pearson's chi-square test for the training set are computed. All necessary conditions which predictors have to meet are listed below:

- The value of the Cramer's V has to be higher than 0.200¹⁷
- P-value of the Person's chi square test and Cramer's V has to be lower than 0.05. In addition, all predictors having in their 2x2 contingency tables (contingency table including predictor and outcome variable) zero-cells or cells expected count less than 5 are eliminated.
- To ensure enough cases for at least four predictors in the logistic regression, all variables having number of missing cases higher than 10% are excluded.
- Only one variant of variable is included in the logistic regression model¹⁸.

¹⁶Usually, values of modest association are set according to sociological, psychological or biological researches where correlation coefficients are higher than in case of international relations.

¹⁷Due to non-normal distribution of all contiguous variables, point-biserial correlation cannot be computed. Therefore, only categorical variables are included.

¹⁸All categorical variables are change into a set of binominal variables. For instance, categorical variable of the separatism index (SEPX) is changed into set of SEPX_V1, SEPX_V2 and SEPX_V2 (process of this change is described in the chapter 4.4 *Independent variables and controls*). Thus, only one variable from the set of SEPX_V1, SEPX_V2 and SEPX_V2 can be chosen. The criterion is the value of the Cramer's V.

Subsequently, variables meeting all conditions listed above are arranged in descending order in tab. 42¹⁹.

Ranking	Variable	Missing less than 10%	Pearson's Chi-square	Cramer's V
1.	X_HIST_WAR_G_V1	OK	194.799***	0.856***
2.	AUTLOST_V3	OK	49.927***	0.445***
3.	SEPX_V3	OK	27.826***	0.323***
4.	GROUPCON_V3	OK	14.118*	0.230*
5.	RACE_V2	OK	13.205***	0.223***
6.	X_RF_HOME	OK	12.518***	0.217***

* $p < .05$, ** $p < .01$, *** $p < .001$

Tab. 46 Variables meeting all conditions for the logistic regression

Source: Computed by author

Comparing this tab. 42 with results of the original sample, some very influential variables, for instance level of groups' organization, are not included due to the high number of missing cases. In addition, not all independent variables have the same strong association with the outcome variable in the training set as in the original sample.

5.8.2 Building of the model

All six variables are tested using the logistic regression model whether they have significant statistical influence on the predictor. Tests are always done with maximally four predictors at the same moment. Various combinations of variables listed in the tab. 42 are tested; however only X_HIST_WAR_G_V1, AUTLOST_V3 and SEPX_V3 make a significant contribution to the prediction of the outcome. The tab. 43 presents results for all possible models created using these predictors. The model based on the experience of an ethnic group with persistent protests or conflicts in the previous year and combination²⁰ of active separatism within last 25 years and lost autonomy valued three points or more according to the seriousness of the lost autonomy seems to be the most relevant as well

¹⁹SEPX_V3 has the same values of the Cramer's V and the Pearson's Chi-square as SEPX_V2.

²⁰Combination of some predictors means that their effect on the outcome is computed together and not separately. Thus, these two predictors are considered to be one predictor in the regression analysis. In other words, it measures their interaction effect (Field 2009, p. 278-279).

as accurate as this model includes all three important variables and is able to predict successfully 94.8% of overall outcome observations.

Application of the same model for the test set shows very similar results. All variables have also significant influence on the outcome and the overall outcome observations are predicted with 91.0% accuracy. To sum up, regression model consisting of experience of an ethnic group with persistent protests or conflicts in the previous year and combination of active separatism within last 25 years and lost autonomy valued three points or more according to the seriousness of the lost is stable in its prediction of outcome variable which is higher than 90%. See tab. 44 and tab. 45.

5.8.3 Evaluation of the model

The regression model meets relatively well all necessary statistical conditions in case of training as well as test set. First, residuals important for the logistic regression are examined. In case of studentized residuals, only one value is slightly higher than 3.29 in the training set. All DFBetas in both data sets are below one. Examination of the Cook's distance shows that only one case in the training set has value higher than one. Second, all predictors included in the model are significantly different from zero. Third, computation of Hosmer and Lemeshow's R^2 for both datasets shows that model is able to explain more than 90% cases.

As written above, the regression model includes X_HIST_WAR_G_V1 and combination of AUTLOST_V3 and SEPX_V3.

X_HIST_WAR_G_V1: Whether a group experienced ethnic conflict in the previous year significantly predicted whether such a group was involved in an ethnic conflict.

→ **training set:** $b = 4.447(0.590)$, Wald $\chi^2(1) = 57.579$, $p < 0.001$

→ **test set:** $b = 3.463(0.473)$, Wald $\chi^2(1) = 53.521$, $p < 0.001$

The odds ratio shows that ethnic groups having a conflict experience in the previous year are much more likely engaged in ethnic conflicts.

→ **training set:** $Exp(B) = 87.9474$

→ **test set:** $Exp(B) = 31.899$

MODEL 1: **93.6% correctly classified cases**
(No conflict: 95.1%, Conflict: 85.4%)

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Exp(B)	Upper
X_HIST_WAR_G_V1	4.723(0.539)***	39.437	113.485	326.566
Constant	-3.574(0.414)***		0.028	

$R^2=0.370$ (Cox & Snell), 0.642 (Nagelkere)
 $\chi^2(1) = 122.998, p < 0.001$
 $*p < .05, **p < .01, ***p < .001$

MODEL 2: **94.4% correctly classified cases**
(No conflict: 95.3%, Conflict: 87.5%)

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Exp(B)	Upper
X_HIST_WAR_G_V1	4.666(0.601)***	32.703	106.256	345.238
AUTLOST_V3	1.791(0.625)**	1.763	5.998	20.397
Constant	-4.147(0.526)***		0.016	

$R^2=0.413$ (Cox & Snell), 0.708 (Nagelkere)
 $\chi^2(2) = 134.286, p < 0.001$
 $*p < .05, **p < .01, ***p < .001$

MODEL 3: **94.8% correctly classified cases**
(No conflict: 96.2%, Conflict: 87.5%)

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Exp(B)	Upper
X_HIST_WAR_G_V1	4.377(0.612)***	23.998	79.563	263.782
AUTLOST_V3	1.408(0.632)*	1.184	4.087	14.104
SEPX_V3	1.772(1.161)	0.604	5.881	57.265
Constant	-5.390(1.116)***		0.005	

$R^2=0.420$ (Cox & Snell), 0.720 (Nagelkere)
 $\chi^2(3) = 137.300, p < 0.001$
 $*p < .05, **p < .01, ***p < .001$

MODEL 4:

94.4% correctly classified cases
(No conflict: 96.0%, Conflict: 85.4%)

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Exp(B)	Upper
X_HIST_WAR_G_V1	4.294(0.551)***	24.892	73.267	215.655
SEPX_V3	2.347(1.114)*	1.178	10.454	92.781
Constant	-5.353(1.102)***		0.005	

$R^2=0.386$ (Cox & Snell), 0.670 (Nagelkere)
 $\chi^2(2) = 129.809$, $p < 0.001$
* $p < .05$, ** $p < .01$, *** $p < .001$

MODEL 5:

84.1% correctly classified cases
(No conflict: 100%, Conflict: 0%)

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Exp(B)	Upper
SEPX_V3	-2.934(1.043)**	0.007	0.053	0.411
AUTLOST_V3	-1.670(0.400)***	0.086	0.188	0.416
Constant	-0.041(0.286)		0.960	

$R^2=0.204$ (Cox & Snell), 0.349 (Nagelkere)
 $\chi^2(2) = 57.438$, $p < 0.001$
* $p < .05$, ** $p < .01$, *** $p < .001$

MODEL 6:

94.8% correctly classified cases
(No conflict: 96.2%, Conflict: 87.5%)

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Exp(B)	Upper
X_HIST_WAR_G_V1	4.477(0.590)***	27.627	87.947	279.515
AUTLOST_V3 by SEPX_V3	-2.353(1.131)*	0.010	0.095	0.873
Constant	-3.084(0.468)***		0.046	

$R^2=0.408$ (Cox & Snell), 0.700 (Nagelkere)
 $\chi^2(2) = 132.119$, $p < 0.001$
* $p < .05$, ** $p < .01$, *** $p < .001$

MODEL 7: **84.1% correctly classified cases**
(No conflict: 100%, Conflict: 0%)

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Exp(B)	Upper
AUTLOST_V3 by SEPX_V3	-3.626(1.022)***	0.004	0.027	0.197
Constant	-1.119(0.187)		0.361	

$R^2=0.144$ (Cox & Snell), 0.247 (Nagelkere)

$\chi^2(2) = 39.142, p < 0.001$

* $p < .05$, ** $p < .01$, *** $p < .001$

MODEL 8: **84.1% correctly classified cases**
(No conflict: 100%, Conflict: 0%)

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Exp(B)	Upper
X_HIST_WAR_G_V1 by AUTLOST_V3 by SEPX_V3	-19.545(28420.722)	0	0	
Constant	-1.658(-0.173)***		0	

$R^2=0.003$ (Cox & Snell), 0.005 (Nagelkere)

$\chi^2(1) = 0.694, p > 0.1$

* $p < .05$, ** $p < .01$, *** $p < .001$

MODEL 9: **85.3% correctly classified cases**
(No conflict: 95.8%, Conflict: 30.0%)

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Exp(B)	Upper
X_HIST_WAR_G_V1 by AUTLOST_V3	2.269(0.485)***	3.737	9.667	25.003
Constant	-1.981(0.202)***		0.138	

$R^2=0.081$ (Cox & Snell), 0.138 (Nagelkere)

$\chi^2(1) = 21.215, p < 0.001$

* $p < .05$, ** $p < .01$, *** $p < .001$

MODEL 10: **86.1% correctly classified cases**
(No conflict: 96.7%, Conflict: 30.0%)

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Exp(B)	Upper
X_HIST_WAR_G_V1 by AUTLOST_V3	1.830(0.515)***	2.272	6.234	17.106
SEPX_V3	-3.421(1.026)***	0.004	0.033	0.244
Constant	-1.314(0.216)***		0.269	

$R^2=0.187$ (Cox & Snell), 0.321 (Nagelkere)

$\chi^2(2) = 56.144, p < 0.001$

* $p < .05$, ** $p < .01$, *** $p < .001$

MODEL 11: **84.6% correctly classified cases**
(No conflict: 100%, Conflict: 0%)

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Exp(B)	Upper
X_HIST_WAR_G_V1 by SEPX_V3	-19.509(28420.722)	0	0	
Constant	-1.694(-0.170)***		0.184	

$R^2=0.003$ (Cox & Snell), 0.004 (Nagelkere)

$\chi^2(1) = 0.672, p > 0.1$

* $p < .05$, ** $p < .01$, *** $p < .001$

MODEL 12: **84.1% correctly classified cases**
(No conflict: 100%, Conflict:0%)

Variable	B (SE)	95% CI for Odds Ratio		
		Lower	Exp(B)	Upper
X_HIST_WAR_G_V1 by SEPX_V3	-18.755(28420.722)	0	0	
AUTLOST_V3	-2.407(0.387)***	0.042	0.090	0.192
Constant	-0.041(0.286)		0.960	

$R^2=0.150$ (Cox & Snell), 0.257 (Nagelkere)

$\chi^2(2) = 40.947, p < 0.001$

* $p < .05$, ** $p < .01$, *** $p < .001$

Tab. 47 Regression models

Source: Computed by author

Observed	Predicted		% correct
	No conflict	Conflict	
No conflict	204	8	96.2
Conflict	5	35	87.5
Overall %			94.8

Tab. 48 Accuracy of the prediction - training set

Source: Computed by author

Observed	Predicted		% correct
	No conflict	Conflict	
No conflict	171	6	96.6
Conflict	14	31	68.9
Overall %			91.8

Tab. 49 Accuracy of the prediction - test set

Source: Computed by author

Odds ratio results also show that conflict experience plays more important role during the time period 1994-2000 (training set) than 2001-2006 (test set). It can be caused by the fact that the 90s were relatively unstable period for many successor states of the USSR as the state structure was forming.

AUTLOST_V3 by SEPX_V3: Involvement of an ethnic group in ethnic conflict also depended on whether such a group has an active separatist movement as interaction of these variables predicted whether the group was engaged in an ethnic conflict or not.

→ **training set:** $b = -2.353(1.131)$, Wald $\chi^2(1) = 4.328$, $p < 0.05$

→ **test set:** $b = -1.397(0.580)$, Wald $\chi^2(1) = 5.803$, $p < 0.05$

The odds ratio shows that absence of an active separatism changes to presence of an active separatism movement in combination with lost autonomy reaching at least three points in the measuring of seriousness, the change in odds of engagement in ethnic conflict compared to no engagement is 0.095 (training set) and 0.247 (test set). Thus, as the level of the lost autonomy increases to three points or more, groups being involved in an active separatist movement are less likely to be involved in conflict (10.5 times less in case of training set and 4.0 times less in case of test set).

→ **training set:** $Exp(B) = 0.095$

→ **test set:** $Exp(B) = 0.247$

Findings on conflict experience are not surprising and correspond with the previous results of odds ratio and Cramer's V computed for the original dataset (before its division into training and test set). On the other hand, results on separatism and lost autonomy are totally opposite. It can be explained as follows. Results of odds ratio presented in the previous chapter can be interpreted as an expression of an influence of one individual variable on the likelihood of outbreak of an ethnic conflict. In other words, it measures influence of one variable on its own. On the other hand, the regression model predicts the categorical outcome (presence of a conflict or absence of a conflict) using more than one predictor. In this case, the model is based on one predictor and combination of two other predictors.

To conclude, presence of an active separatist movement within last 25 years and lost autonomy can increase the likelihood of ethnic groups' involvement in conflicts in case that the effect of these variables are measure on its own. Nevertheless, these two indicators are not strong enough to predict conflict if they are included in the regression model together with very influential indicator of experience with conflict. Thus, groups experienced conflict in the previous year, having separatist tradition and motivation to fight in terms of lost autonomy can be perceived by their governments as a serious threat to government authority and country territorial integrity. It implies that such groups are treated very carefully to prevent future conflict.

Second explanation can be offer by exploration of relationship between these indicators and the outcome variable. As fig. 6 and 7. show, lost autonomy as well as presence of an active separatist movement do not have a linear relationship with the predicted probability of the regression model. These charts show that groups not involved in ethnic conflicts and having very low probability of ethnic conflict have also an active separatist movement within last 25 years and lost their autonomy.

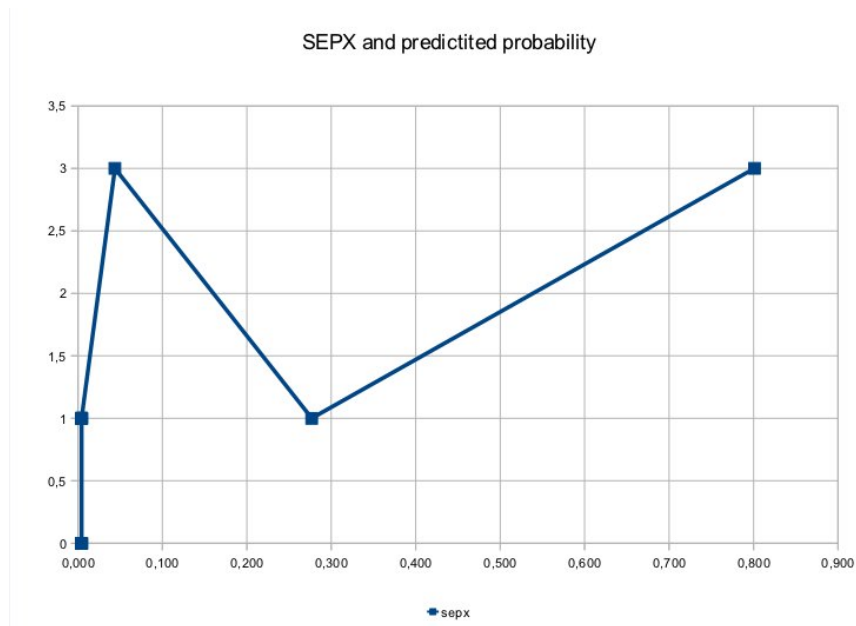


Fig. 6 Chart of index of separatism and predicted probability

Source: Author

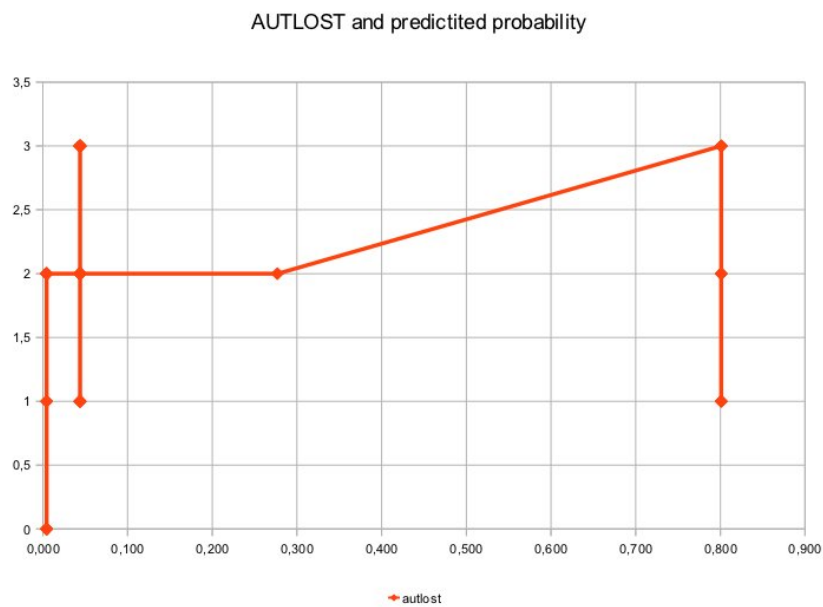


Fig. 7 Chart of political autonomy grievance and predicted probability

Source: Author

5.8.4 Incorrectly classified cases

The regression model incorrectly classifies 5.3% cases in the training set and 9.0% in the test set. Cases where the conflict was present have higher percentage of failures as is shown in tab. 43. In the case of the training set, the majority of mistakes are represented by prediction of conflict in cases where conflicts are absent totally are present in the previous year. In the case of test set, the regression model mostly overestimates probability of conflict in cases where conflicts are totally absent. Character of mistakes in the training set shows very strong influence of the predictor X_HIST_WAR_G_V1 whereas incorrectly classified cases in the test set indicate lower influence of combination of AUTLOST_V3 and SEPX_V3.

6 Conclusion

The topic of this diploma thesis is ethnic groups in the space of the former Soviet Union in the time period 1994-2006 and their involvement in ethnic conflicts. The aim of this thesis is to identify key parameters driving these ethnic groups towards armed conflict as a response to their needs, interests and living conditions.

Many qualitative studies suggest that ethnic groups are more prone to take up arms if they are target of a discriminatory policy because this policy can cause emergence of exclusivist claims to domination over a territory or to status of language and religion. These claims are not usually compatible with claims of other groups; furthermore, they seriously threaten territorial integrity of a state where such a discriminated group lives.

Results of quantitative studies on causes of ethnic conflicts emphasize discrimination and certain living conditions as causes of ethnic conflicts. However, these studies differ in data set, methods and reference objects they share some similar findings about greed, grievance and opportunities making organized ethnic violence more likely. First, poor countries are more prone to violence as well as individuals with low income are more likely to join rebellion. Second, political and economical discrimination as well as group territorial concentration as a sign of strong group identity favour rebellion. Third, weak regimes like partial democracy and partial autocracy and support for rebellion coming from abroad increase the likelihood of an outbreak of ethnic conflict.

Gurr (1993) assumes that involvement of ethnic groups in rebellions and protests is driven by groups' potential for mobilization and by groups' relative deprivation, all caused by unjust discrimination. Relative deprivation provides motivation for political violence, whereas potential for mobilization can change this motivation into rebellion or protest. Groups' identities are suggested to be used as an instrumental response to governments and their treatment with ethnically defined minorities.

This thesis focuses on the successor states of the former Soviet Union which have very different development from other regions in the world. The state-building

of the USSR was very cruel as the administrative borders of federal units were drawn artificially regardless to settlements of ethnic groups. 'Ethnofederalism', the Soviet federal system was based on the hierarchy of various units ruled by titular nationalities. Local elites, members of titular nationalities, received their status thanks to their loyalty to the CPSU. They were also responsible for the well-being of people living in their federal unit. Therefore, this federal system resulted in competition for resources among federal units. At the beginning, political leaders of titular nationalities used instrumental agenda demanding to increase socioeconomic gains of their groups. However, they shortly supported their demands also by primordial arguments to elevate the status of their federal unit. Thus, 'ethnofederalism' created advantaged (titular nationalities) and disadvantaged groups (minorities) and a highly competitive environment where ethnicity was a very important factor of success. This historical experience is important until now as instrumental demands of ethnic groups play important roles in many ethnic conflicts in the successor states of the USSR.

The previous discussion shows three main factors which can make ethnic groups more prone to conflict: permanent exclusion, strong identity and lastly dissimilarity of an ethnic group. These factors constitute main three hypotheses which are tested using descriptive statistics, Spearman's chi square test, odds ratio, Cramer's V, point-biserial correlation and conditional logistic regression. The research includes 38 politically significant ethnic groups living successor states of the Soviet Union within the time period 1994 - 2006. For the purpose of this research, data of the *The Minorities at Risk Project* (2012) of Maryland University are used meaning that only politically relevant national and minority peoples of more than 100 000 members living in countries with more than one million inhabitants are chosen for the observation (Gurr 1998, p. 15).

Statistical results shows that the hypothesis on dissimilarity as a risk factor can be partially denied as only religious dissimilarity of ethnic groups to majority significantly increases the probability of ethnic conflicts. Similarly, the hypothesis saying that permanent exclusion can make ethnic groups more prone to conflict is not fully proven as only political and economical exclusion matter in the case of ethnic conflicts; however, statistical results are not robust. Restrictions on use

of language and religion do not seem to be important factors. On the other hand, hypothesis suggesting that ethnic groups having strong identity tend much more to ethnic conflicts is confirmed. Statistical analysis proves the very important influence of strong identity on the occurrence of ethnic conflicts and modest or at least low influence of lost autonomy, presence of separatist movement, regional base and territorial concentration matter on the likelihood of outbreak of ethnic conflicts.

To sum up this section, ethnic groups which are mainly prone to conflict have first of all strong identity providing them with a base for collective action as well as source of grievance. Secondly, political and economic discrimination of such groups can increase the likelihood of their involvement in ethnic conflict.

The regression model predicting absence or presence of an ethnic conflict is based on three predictors: experience of an ethnic group with persistent protests or conflicts in the previous year and a combination of active separatism within the last 25 years and lost autonomy valued three points or more according to the seriousness of the loss. The model is relatively stable in its prediction of the outcome variable which is higher than 90% in training set as well as test set.

According to the model, ethnic groups having a conflict experience in the previous year are more likely to be engaged in ethnic conflicts. On the other hand, groups which lost autonomy as well as are involved in an active separatist movement during the last 25 years are less likely to be involved in conflict. Results on separatism and lost autonomy seem to be contradicted to previously presented findings. However, previous findings based on odds ratio determine influence of one variable on its own. On the other hand, the regression model predicts the categorical outcome (presence of a conflict or absence of a conflict) using more than one predictor. It can be explained that groups experienced conflict in the previous year, having separatist tradition and motivation to fight in terms of lost autonomy can be perceived by their governments as a serious threat to government authority and country territorial integrity. It implies that such groups are to be treated very cautiously thus to preventing future conflict.

7 SUMMARY

Ethnic conflicts are still very serious threat in the successor states of the Soviet Union. Theories on ethnic groups behavior suggest that ethnic groups are more prone to take up arms if they are target of a discriminatory policy because this policy can cause emergence of exclusivist claims to domination over a territory or to status of language and religion. Statistical analysis shows that the likelihood of ethnic conflicts is increased by strong identity of ethnic groups providing them base for collective action as well as source of grievance. Similarly, political and economic discrimination of ethnic groups make these groups more prone to violence.

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Appendix 1: Codebook of variables

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1 Introduction

This codebook describes and explains indicators used in the research. Indicators are divided into four main groups: case indicators, state indicators and minorities indicators. Case indicators refer about case information. State indicators describe key characteristics of states, while minorities indicators deal with data directly linked to minorities. Lastly, conflict indicators explain how is ethnic conflict defined and measured in the diploma thesis.

The majority of indicators originally comes from databases The Minorities at Risk Database or The World Development Indicators. For the description of these indicators, the text of original codebooks of these databases are used as these codebooks precisely define these indicators. Thus, it is considered to be inappropriate to paraphrase these original codebooks as the paraphrased text should suffer from accuracy. For details on source of codebooks and data see the *Appendix II*.

Some of indicators are created by author using data from public sources. These indicators are labeled by the letter 'x' (e.g. X_FRAG).

All categorical variables are changed into a set of binominal variables to make possible to include them into the logistic regression model. See tab. 1.

CHANGE	VARIABLE	VALUES		
original categorical variable	LANG	0	1	2
changed binominal variable	V1_LANG	0	1	1
changed binominal variable	V2_LANG	0	0	1

Table 1 Change of categorical variable into binominal variable

Source: Author

Database: Ethnic groups of the former Soviet Union, 1994-2006
Cases: 494
Variables: 94

2 Case indicators

GROUP Full name of group

COUNTRY Name of state

YEAR Year

3 State indicators

3.1 Ethnic fragmentation

Data about the size of ethnic groups comes from the CIA Factbook. Minimum size of ethnic groups in this research is 0.7% of total population.

GROUP1 Size of the 1st largest ethnic group (%)
Source: CIA Factbook

GROUP2 Size of the 2nd largest ethnic group (%)
Source: CIA Factbook

GROUP3 Size of the 3rd largest ethnic group (%)
Source: CIA Factbook

GROUP4 Size of the 4th largest ethnic group (%)
Source: CIA Factbook

GROUP5 Size of the 5th largest ethnic group (%)
Source: CIA Factbook

GROUP6 Size of the 6th largest ethnic group (%)
Source: CIA Factbook

GROUP7 Size of the 7th largest ethnic group (%)
Source: CIA Factbook

X_ GR_ UNC Proportion of people who do not belong to GROUP1-7 (%)
Source: Created by author using data from the CIA Factbook

X_ FRAG Measure of ethnic fractionalization

Source: Created by author using data from the CIA Factbook

Notes: FRAG is computed using the Hirshman-Herfindahl measure of concentration as follows:

$$F = \sum_{i=1}^N \pi_i(1 - \pi_i) \quad (1)$$

where π_i stands for the size of ethnic group i .

X_ FRAG_ UNC Measure of ethnic fractionalization including GR_ UNC

Source: Created by author using data from the CIA Factbook

X_ RQ Measure of ethnic polarization

Source: Created by author using data from the CIA Factbook

Notes: RQ is calculated according to the Reynal-Querol's measure of polarization as follows:

$$RQ = 1 - \sum_{i=1}^N \left(\frac{0.5 - \pi_i}{0.5} \right)^2 \pi_i \quad (2)$$

where π_i stands for the size of ethnic group i .

X_ RQ_ UNC Measure of ethnic polarization including GR_ UNC

Source: Created by author using data from the CIA Factbook

X_ DOM_ 45 Dominance of one group. Size of this group is bigger than 45%

0 The biggest group contains less than 45% of overall population

1 The biggest group contains more than 45% of overall population

Source: Created by author using data from the CIA Factbook

X_ DOM_ 60 Dominance of one group. Size of this group is bigger than 60%

0 The biggest group contains less than 60% of overall population

1 The biggest group contains more than 60% of overall population

Source: Created by author using data from the CIA Factbook

X_ DOM_ 80 Dominance of one group. Size of this group is bigger than 80%
 0 The biggest group contains less than 80% of overall population
 1 The biggest group contains more than 80% of overall population
Source: Created by author using data from the CIA Factbook

X_ DOM_ 90 Dominance of one group. Size of this group is bigger than 90%
 0 The biggest group contains less than 90% of overall population
 1 The biggest group contains more than 90% of overall population
Source: Created by author using data from the CIA Factbook

3.2 Neighbourhood and history effect

X_ OWN_ ST Existence of a state where an ethnic group is the dominant group
 0 No
 1 Existence of an own state which has not a common border to the state where the ethnic group lives
 2 Existence of an own state which has a common border to the state where the ethnic group lives
Source: Author
Notes: Slavs in Moldova are considered to be Russians or Ukrainians (coded as 2).

X_ RF_ HOME The Russian Federation as homeland of an ethnic group
 0 No
 1 Yes (Russians living outside the borders of the Russian Federation)
Source: Author
Notes: Slavs in Moldova are considered to be Russians (coded as 1).

X_ WAR_ NEIGHB War in neighbouring state in the same year of observation
 0 No war
 1 War
Source: Created by author using data from the Uppsala Conflict Data Program (UCDP)
Notes: War, minor conflict and non-state violence according to the UCDP Database are considered to be war.

- X_ REGION** Region where state is located
- 1 Europe
 - 2 Caucasus
 - 3 Central Asia
- Source:** Author
- Notes:**
- REGION: 1 → The Russian Federation, Ukraine, Belarus, Estonia, Latvia, Lithuania, and Moldova
 - REGION: 2 → Azerbaijan and Georgia
 - REGION: 3 → Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan

- X_ HIST_ WAR_ G** Historical experience with violent conflict of an ethnic group
- 0 Neither violent rebellion or violent protest in the history
 - 99 Missing value
- Source:** Created by author using data from the Minorities at Risk Database
- Notes:** The value of this variable is the number of years since the last violent conflict in which ethnic group was involved. The starting point is the year 1989. The missing values for the period 1989 - 1990 are considered to be period without violence.
- INT_ PROT_ REB: 0 → HIST_ WAR_ G: 0
 - INT_ PROT_ REB: 1 → HIST_ WAR_ G: number of years since the last violent conflict - maximum value is 5

3.3 Regime and government indicators

- POLITY** Indicator describing regime as democratic or autocratic
- Source:** The Polity IV Project
- Notes:** POLITY ranges from +10 (strongly democratic) to -10 (strongly autocratic).

- X_ POLITY_ RED** Indicator describing regime as democratic or autocratic - changed into positive values
- Source:** Author using data of The Polity IV Project
- Notes:** X_ POLITY_ RED ranges from 20 (strongly democratic) to 0 (strongly autocratic).
- POLITY = +10 → X_ POLITY_ RED = 20
 - POLITY = 0 → X_ POLITY_ RED = 10
 - POLITY = -10 → X_ POLITY_ RED = 0

DURABLE Regime durability

Source: The Polity IV Project

Notes: DURABILITY is measured by the number of years since the most recent regime change or the end of transition period defined by the lack of stable political institutions.

X_ GOV_ IND Governance indicator

Source: Created by author using data from The Worldwide Governance Indicators Project

Notes: The Worldwide governance indicators consist of the views of a large number of enterprise, citizen and expert survey respondents; therefore, these indicators assess their perception of quality of government. The indicators cover six dimension of governance:

- Voice and Accountability
- Political Stability and Absence of Violence
- Government Effectiveness
- Regulatory Quality
- Rule of Law
- Government Effectiveness

These six indicators range from 2.5 to -2.5 where the higher value means higher quality of government. X_ GOV_ IND consists of sum of all these indicators.

3.4 Economic indicators

LIT_ AD Literacy rate of adult population (% of people ages 15 and above)

Source: The World Development Indicators

LIT_ Y Literacy rate of youth population (% of people ages 15-24)

Source: The World Development Indicators

SPEND_ EDU Public spending on education (% of GDP)

Source: The World Development Indicators

LABOR_ EDU Labor force with tertiary education (% of total)

Source: The World Development Indicators

- GOOD_SERV_EXP** Exports of goods and services (% of GDP)
Source: The World Development Indicators
- GOOD_SERV_IMP** Imports of goods and services (% of GDP)
Source: The World Development Indicators
- FOR_INV** Net inflows of foreign direct investment (% of GDP)
Source: The World Development Indicators
- GDP_PER_CAP** GDP per capita (constant 2000 US\$)
Source: The World Development Indicators
- HUNG** Depth of hunger (kilocalories per person per day)
Source: The World Development Indicators
- NET_US** Internet users (per 100 people)
Source: The World Development Indicators
- EC_CHILD** Economically active children, total (% of children ages 7-14)
Source: The World Development Indicators
- EMPL_RAT** Employment to population ratio (% of population older than 15)
Source: The World Development Indicators
- UNEM_TERT** Unemployment with tertiary education (% of total unemployment)
Source: The World Development Indicators
- UNEMPL** Unemployment (% of total labor force)
Source: The World Development Indicators

GINI GINI index**Source:** The World Development Indicators**Notes:** Gini index measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution.**POV_\$1.25_RAT** Poverty headcount ratio at \$1.25 a day (% of population)**Source:** The World Development Indicators**Notes:** Population below \$1.25 a day is the percentage of the population living on less than \$1.25 a day at 2005 international prices.**POV_\$2_RAT** Poverty headcount ratio at \$2 a day (% of population)**Source:** The World Development Indicators**Notes:** Population below \$2 a day is the percentage of the population living on less than \$2 a day at 2005 international prices.**FUEL_EXP** Fuel exports (% of merchandise exports)**Source:** The World Development Indicators

3.5 Ecological indicators

AGRIC Agricultural land (% of land area)**Source:** The World Development Indicators**AGRIC_IRRIG** Agricultural irrigated land (% of total agricultural land)**Source:** The World Development Indicators**CROP_LAND** Permanent cropland (% of land area)**Source:** The World Development Indicators

WAT_SOUR Improved water source (% of population with access)
Source: The World Development Indicators
Notes: WAT_SOUR indicator refers to the percentage of the population with reasonable access to an adequate amount of water from an improved source, such as a household connection, public standpipe, borehole, protected well or spring, and rainwater collection. Unimproved sources include vendors, tanker trucks, and unprotected wells and springs. Reasonable access is defined as the availability of at least 20 liters a person a day from a source within one kilometer of the dwelling.

3.6 Demographic indicators

POP_TOT Total population
Source: The World Development Indicators

POP_DENS Population density (people per sq. km of land area)
Source: The World Development Indicators

RUR_POP Rural population (% of total population)
Source: The World Development Indicators

URB_POP Urban population (% of total population)
Source: The World Development Indicators

BIRTH_RATE Birth rate (per 1,000 people)
Source: The World Development Indicators

FERT_RATE Fertility rate (births per woman)
Source: The World Development Indicators

INF_MORT_RATE Infant mortality rate (per 1,000 live births)
Source: The World Development Indicators

AGE_DEP_RAT Age dependency ratio
Notes: AGE_DEP_RAT is the ration of people younger than 15 or older than 64 to the working-age population those ages 15-64 (the proportion of dependents per 100 working-age population).
Source: The World Development Indicators

DEATH_RATE Death rate (per 1,000 people)
Source: The World Development Indicators

NET_MIG Net migration
Source: The World Development Indicators

IDPS Internally displaced persons
Source: The World Development Indicators

EM_TERT_EDU Emigration rate of tertiary educated (% of total tertiary educated population)
Source: The World Development Indicators

REMITT Workers' remittances and compensation of employees, received (% of GDP)
Source: The World Development Indicators

3.7 Security indicators

BATL_DEATH Battle-related deaths (number of people)
Source: The World Development Indicators
Notes: Battle-related deaths are deaths in battle-related conflicts between warring parties in the conflict dyad (two conflict units that are parties to a conflict). This includes traditional battlefield fighting, guerrilla activities, and all kinds of bombardments of military units, cities, and villages, etc. All deaths, military as well as civilian, incurred in such situations, are counted as battle-related deaths.

LOSS_CR Losses due to theft, robbery, vandalism, and arson (% sales)
Source: The World Development Indicators
Notes: Losses due to theft, robbery, vandalism, and arson are the estimated losses from those causes that occurred on establishments' premises as a percentage of annual sales.

ARM_PERS Armed forces personnel (% of total labor force)
Source: The World Development Indicators

MIL_EXP Military expenditure (% of GDP)
Source: The World Development Indicators

3.8 Strategic indicators

FOREST Forest area (% of land area)
Source: The World Development Indicators

ROAD_DENS Road density (km of road per 100 sq. km of land area)
Source: The World Development Indicators

4 Minorities indicators

4.1 Group distinctiveness

LANG Different language group

0 Linguistic assimilation with plurality group

Group has same language as plurality (e.g., Arab Shi'a and Arab Sunni in Iraq) or most of the group (more than 90%) no longer speaks native language but has assimilated to language of dominant group (e.g., German Americans, native Hawaiians).

1 Group speaks multiple languages, at least one different from plurality group

Members of group speak different languages (e.g., Southern Sudanese in Sudan) or part of group is assimilated to plurality but part still speaks native language.

2 Group speaks primarily one language, different from plurality group

Plurality of group speaks the same language AND it is different from plurality group language (e.g. Kurds in Turkey or Iraq).

-99 Missing value

Source: Minorities at risk

Notes: Data for the period 1994-2003 (the Minorities at risk dataset users manual 030703) are recoded according to the Minorities at risk codebook - version 2/2009. Values are considered to be the same during the observed period.

• 0 Unknown → -99 Missing value

• 1 Group speaks same language 2 Group speaks multiple languages → 0 Linguistic assimilation with plurality group

• 2 Group speaks multiple languages → Group speaks multiple languages, at least one different from plurality group

• 3 Linguistic assimilation with domestic group → 0 Linguistic assimilation with plurality group

BELIEF Different group religion

0 Unknown

1 Different sect within same religion as the dominant group

2 Multiple sects; some different from dominant group

3 Different religion from dominant group

-99 Missing value

Source: The Minorities at Risk Database

Notes: Data for the period 2004-2006 are recoded according to the Minorities at risk dataset users manual 030703. Values are considered to be the same during the observed period.

- RELIGS1** Specific religion
- 1 Roman Catholic
 - 2 Orthodox
 - 3 Protestant
 - 4 Other Christian sect
 - 5 Sunni Islam
 - 6 Shi'a Islam
 - 7 Other Islamic sect
 - 8 Buddhist
 - 9 Animist
 - 10 Other
 - 99 Missing value

Source: The Minorities at Risk Database

Notes: Data for the whole period are coded according to the Minorities at risk codebook - version 2/2009.

Value for Adzhars is change from -99 to 5 because this ethnic group was considered to be Sunni Muslims in the dataset for the period 1994-2003. Missing values for years 2001, 2002 and 2003 are code according to previous and following years which have in all case the same value. Therefore, this indicator is regarded to be the same during the whole period.

- CUSTOM** Different group customs (marriage, family, dress, etc.)

- 0 Same social customs as plurality
- 1 Different social customs from plurality

At least a significant minority (25%) of ethnic group population follows different social customs from the plurality group in the country. Examples of different social customs include polygamy vs. monogamy; nomadic or semi-nomadic lifestyles versus settled; etc. Also coded here are groups that are nominally the same religion as the plurality group but have significantly different practice (e.g. incorporation of traditional religion into Islamic or Christian practice).

- 99 Missing value

Source: The Minorities at Risk Database

Notes: Value for Chechens, Karachays, Avars, Ingushs, Kumyks, Tuvinians, Abkhazians, Armenians (in Azerbaijan), Lezgins, Russins (in Azerbaijan), Uzbeks (in Kyrgystan) and Gagauzs in the period 2004 -2006 are change according to the previous years 1994 - 2003.

RACE Different physical appearance

- 0 No physical differences in appearance
- 1 Physically distinguishable subtype of same racial stock
E.g., Korean vs. Japanese; Greek vs. German.
- 2 Different racial stock from the dominant group with substantial intermixture
(E.g., Chinese v. Malay; Black or Indian v. European.
- 3 Different racial stock, little or no intermixture
- 99 Missing value

Source: Minorities at risk**Notes:** Missing values for years 2001, 2002 and 2003 are code according to previous and following years which have in all case the same value. Therefore, this indicator is regarded to be the same during the whole period.

Some necessary changes are made in coding:

- Russians (in Tajikistan): 0 → 1
- Uzbeks (in Tajikistan): 0 → 3
- Tajiks (in Uzbekistan): 0 → 3
- Slavs (in Moldova): 0 → 1

4.2 Group organization

GOJPA Group organization for political action

- 0 No political movements or organizations represent group interests
- 1 Group interests promoted by umbrella organizations
- 2 Group interests promoted by one or more conventional political parties or movements
- 3 Group interests promoted mainly by conventional movements or parties but also by militant organizations with limited support
- 4 Group interests promoted mainly by militant organizations but also by some conventional organizations
- 5 Group interests promoted only by militant organizations
- 99 Missing value

Source: Minorities at risk

- X_ GOJPA_ TYPE** Group organization for political action - political movement or military organization
- 0 No political movements or organizations represent group interests
 - 1 Group interests promoted by a political movement or a political organization
 - 2 Group interests promoted by a military organization
 - 99 Missing value
- Source:** Created by author using data from the Minorities at Risk Database
- Notes:** This indicator is created by author using The Minorities at Risk Database to distinguish between political and military group organization.
- GOJPA: 0 → GOJPA_ TYPE: 0
 - GOJPA: 1 or 2 → GOJPA_ TYPE: 1
 - GOJPA: 3, 4, or 5 → GOJPA_ TYPE: 2

4.3 Group status

- AUTLOST** Index of political autonomy grievances
- 0 - 6 Values range from 0 (no historical autonomy) to 6.0
 - 99 Missing value
- Source:** The Minorities at Risk Database
- Notes:** Data for the period 2004-2006 (the Minorities at risk codebook - version 2/2009) are recoded according to the Minorities at risk dataset users manual 030703. Values are considered to be the same during the observed period.
- A composite index for groups who have lost autonomy or undergone a transfer of control from one country to another. The index is constructed by adding the weights for *Magnitude of change* and *Group status prior to change*, subtracting one, and dividing by the *Year of loss* weight. These values are shown in the Tab. 1.

YEAR OF LOSS AU- TONOMY OR TRANS- FER OF CONTROL		MAGNITUDE CHANGE		OF	GROUP PRIOR TO CHANGE	STATUS
Period	Weight	Type	Weight	Status	Weight	
1980-95	5	Loss of long-term autonomy	3	State or republic	4	
1960-79	4	Loss of short- term autonomy (<10 years) under colonial rule	2	Autonomous region or province, or au- tonomous people	3	
1940-59	3	Transfer only cen- tralized authority, religious or secular	1	Traditional	1	
1900-39	2	Province in another state or colonial territory	2			
pre-1900	1	Part of larger seg- ment of group	2			
		Autonomous but acephalous or fragmented people	1			

Table 2 Variables and weights used to construct AUTLOST (Source: The Minorities at Risk Database)

SEPX Separatism index

- 0 None
- 1 AUTLOST > 0 but no separatist (independence/revanchist) or autonomy movements in past 50 years
- 2 Separatist or autonomy movement that persisted as an active political force for at least 5 years in the past 50 years, but not in the past 25 years
- 3 Active separatist or autonomy movements in the past 25 years
- 99 Missing value

Source: The Minorities at Risk Database

Notes: Data for the whole period are coded according to the Minorities at risk codebook - version 2/2009.

SEPKIN Active separatism (independence or autonomy movements) among kin groups

- 0 No
- 1 Yes
- 99 Missing value

Source: The Minorities at Risk Database

ECDIS Economic discrimination index

- 0 No discrimination
- 1 Neglect/remedial policies
Significant poverty and under-representation in desirable occupations due to historical marginality, neglect, or restrictions. Public policies are designed to improve the group's material well being.
- 2 Neglect/no remedial policies
Significant poverty and under-representation due to historical marginality, neglect, or restrictions. No social practice of deliberate exclusion. Few or no public policies aim at improving the group's material well-being.
- 3 Social exclusion/neutral policy
Significant poverty and under-representation due to prevailing social practice by dominant groups. Formal public policies toward the group are neutral or, if positive, inadequate to offset active and widespread discrimination.
- 4 Exclusion/repressive policy
Public policies (formal exclusion and/or recurring repression) substantially restrict the group's economic opportunities by contrast with other groups.
- 99 Missing value

Source: The Minorities at Risk Database

POLDIS Political discrimination index

0 No discrimination

1 Neglect/remedial policies

Substantial under-representation in political office and/or participation due to historical neglect or restrictions. Explicit public policies are designed to protect or improve the group's political status.

2 Neglect/no remedial policies

Substantial under-representation due to historical neglect or restrictions. No social practice of deliberate exclusion. No formal exclusion. No evidence of protective or remedial public policies.

3 Social exclusion/neutral policy

Substantial under-representation due to prevailing social practice by dominant groups. Formal public policies toward the group are neutral or, if positive, inadequate to offset discriminatory social practices.

4 Exclusion/repressive policy

Public policies (formal exclusion and/or recurring repression) substantially restrict the group's political participation by comparison with other groups. (Note: This does not include repression during group rebellions. It does include patterned repression when the group is not openly resisting state authority.)

-99 Missing value

Source: The Minorities at Risk Database**CULPO1** Restrictions on use of religion

0 No restrictions

1 Activity informally restricted

The activity is restricted by widespread but informal social practice (e.g., by discrimination against people who follow group religion)

2 Activity somewhat restricted

3 Activity sharply restricted

-99 Missing value

Source: The Minorities at Risk Database

Notes: Data for the period 1994-2002 are coded according to the Minorities at risk dataset users manual 030703. Data for the period 2003-2006 are coded according to the the Minorities at risk codebook - version 2/2009 where this indicator deals not only with the restriction on use of language but also with restriction on language instructions.

- CULPO2** Restrictions on use of language
- 0 No restrictions
 - 1 Activity informally restricted
The activity is restricted by widespread but informal social practice (e.g., by discrimination against people who speak the group's language)
 - 2 Activity somewhat restricted
 - 3 Activity sharply restricted
 - 99 Missing value
- Source:** The Minorities at Risk Database
- Notes:** Data for the period 1994-2002 are coded according to the Minorities at risk dataset users manual 030703. Data for the period 2003-2006 are coded according to the the Minorities at risk codebook - version 2/2009 where this indicator deals not only with the restriction on use of language but also with restriction on language instructions.

4.4 Group concentration

- GC2** Regional base
- 0 No
 - 1 Yes
 - 99 Missing value
- Source:** The Minorities at Risk Database
- Notes:** Data for the whole period are coded according to the Minorities at risk codebook - version 2/2009.
A spatially contiguous region larger than an urban area that is part of the country, in which 25% or more of the minority resides and in which the minority constitutes the predominant proportion of the population.

- GPRO** Group proportion of country population (to 4 decimal places)
- 99 Missing value
- Source:** The Minorities at Risk Database

- GROUPCON** Groups spatial distribution
- 0 Widely dispersed
 - 1 Primarily urban or minority in one region
 - 2 Majority in one region, others dispersed
 - 3 Concentrated in one region
 - 99 Missing value
- Source:** The Minorities at Risk Database

5 Conflict indicators

Conflict indicators are used to compose the dependent variable - existence of conflict or non-existence of conflict. Conflict can be related to states or ethnic groups. Some models forecasting ethnic conflicts, for example The State Failure Project, use as a dependent variable presence of a conflict in a state. Nevertheless, this practice is highly problematic in case of ethnic conflicts. For instance, the ongoing conflict in Chechnya causes that the Russian Federation can be coded as a country with conflict although ethnic groups like Kumyks or Buryats do not take part in. Thus, dependent variable defined as a conflict related to an ethnic group but not to a state can eliminate incorrectnesses described above.

The Minorities at Risk created two conflict indicators, namely PROT and REB, directly related to ethnic group. These indicators express disagreement and dissatisfaction of ethnic group with government exercising authority over the group.

PROT Protest index

- 0 None reported
- 1 Verbal opposition
Requests by a minority-controlled regional group for independence (public letters, petitions, posters, publications, agitation, court action, etc.).
- 2 Symbolic resistance
Sabotage, symbolic destruction of property OR political organizing activity on a substantial scale (e.g. sit-ins, blockage of traffic).
- 3 Small demonstrations
A few demonstrations, rallies, strikes, and/or riots, the largest of which has total participation of less than 10,000.
- 4 Medium demonstrations
Demonstrations, rallies, strikes, and/or riots, the largest of which has total participation between 10,000 and 100,000.
- 5 Large demonstrations
Demonstrations, rallies, strikes, and/or riots, the largest of which has total participation over 100,000.
- 99 Missing value

Source: The Minorities at Risk Database

REB Rebellion index

- 0 None reported
- 1 Political banditry, sporadic terrorism
Fewer than 6 events.
- 2 Campaigns of terrorism
More than 6 events.
- 3 Local rebellions
Armed attempts to seize power in a locale except cases that are the beginning of a protracted guerrilla or civil war during the reported year.
- 4 Small-scale guerrilla activity
Includes all three of the following traits: fewer than 1000 armed fighters, sporadic armed attacks (less than 6 reported per year) and attacks in a small part of the area occupied by the group (or in one or two other locales).
- 5 Intermediate guerrilla activity
Includes one or two of the defining traits of large-scale activity and one or two of the defining traits of small-scale activity.
- 6 Large-scale guerrilla activity
Includes all three of the following traits: more than 1000 armed fighters, frequent armed attacks (more than 6 reported per year) and attacks affecting large part of the area occupied by group.
- 7 Protracted civil war fought by rebel military
Has all the characteristics of large-scale guerrilla activity, plus rebels control large scale base areas that are secure over time.
- 99 Missing value

Source: The Minorities at Risk Database

X_ INT_ PROT Violent protest according to the MatR database

- 0 No protest or non-violent protest
- 1 Violent protest
- 99 Missing value

Source: Created by author using data from the Minorities at Risk Database

- Notes:**
- PROT: 1, 2 or 3 → X_ INT_ PROT: 0
 - PROT: 4, 5 → X_ INT_ PROT: 1

X_ INT_ REB Violent rebellion according to the MatR database

0 No protest or non-violent rebellion

1 Violent rebellion

-99 Missing value

Source: Created by author using data from the Minorities at Risk Database

Notes: • REB: 0 \rightarrow X_ INT_ REB: 0

• REB: 1, 2, 3, 4, 5, 6 or 7 \rightarrow X_ INT_ REB: 1

X_ CON_ PROT_ REB Violent rebellion or protest according to the MatR database

0 Neither protest nor rebellion, non-violent protest or rebellion

1 Violent protest or rebellion

-99 Missing value

Source: Created by author using data from the Minorities at Risk Database

Notes: • X_ INT_ PROT: 0 \rightarrow X_ CON_ PROT_ REB: 0

• X_ INT_ PROT: 1 \rightarrow X_ CON_ PROT_ REB: 1

• X_ INT_ REB: 0 \rightarrow X_ CON_ PROT_ REB: 0

• X_ INT_ REB: 1 \rightarrow X_ CON_ PROT_ REB: 1

6 APPENDIX I: List of states and ethnic groups

STATE	ETHNIC GROUP
Azerbaijan	Armenians
	Lezgins
	Russians
Belarus	Belarus
	Russians
Estonia	Russians
Georgia	Abkhazians
	Adzhars
	Ossetians (South)
	Russians
Kazakhstan	Germans
	Russians
Kyrgyzstan	Russians
	Uzbeks
Latvia	Russians
Lithuania	Poles
	Russians
Moldova	Gagauz
	Slavs
Russia	Avars
	Buryat
	Chechens
	Ingush
	Karachay
	Kumyks
	Lezgins
	Roma
	Tatars
	Tuvinians
	Yakut
Tajikistan	Russians
	Uzbeks
Turkmenistan	Russians
Ukraine	Crimean Russians
	Crimean Tatars
	Crimean Tatars
Uzbekistan	Russians
	Tajiks

Table 3 List of Ethnic groups and states (Source: Author)

7 APPENDIX II: List of sources

- *The Minorities at Risk Database - MaR* (2011) accessed on 29/01/2011.
URL: <http://www.cidcm.umd.edu/mar/>
- *The World Development Indicators - WDI* (2011) accessed on 20/03/2011.
URL: <http://data.worldbank.org/data-catalog/world-development-indicators>
- *The Worldwide Governance indicators Project - WGI* (2011) accessed on 24/03/2011.
URL: <http://info.worldbank.org/governance/wgi/index.asp>
- *The Uppsala Conflict Data Program - UCDP* (2011) accessed on 27/03/2011.
URL: <http://www.ucdp.uu.se/gpdatabase/search.php>
- *The Polity IV Project* (2011) accessed on 05/02/2011.
URL: <http://www.systemicpeace.org/polity/polity4.htm>
- *The CIA World Factbook* (2011) accessed on 12/03/2011.
URL: <https://www.cia.gov/library/publications/the-world-factbook/>

Ethnic groups in the former Soviet Union space

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SUBJECT: Proposal of diploma thesis

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1 Introduction

The aim of this proposed diploma thesis is to identify the key parameters driving ethnic groups at risk towards armed conflicts as a response to their needs, interests and poor living conditions.

Ethnic groups are defined as 'a type of cultural collectivity, one that emphasizes the role of myths of descent and historical memories, and that is recognized by one or more cultural differences like religion, customs, language, or institutions.' (Smith 1993, p. 20). Thus, members of an ethnic groups differ from other people by collective name, common culture as well as shared values. Moreover, relatively strong ties are caused by their believe in common ancestry (Smith 1993, p. 21).

It means that ethnic conflicts are conflicts between ethnic groups whose members have very strong perception of share identity especially if such a group faces to a serious threat. Thus, ethnic groups are able to mobilize huge numbers of loyal fighters and cause very long and bloody conflicts.

Current research on ethnic conflicts and civil wars has focused on causes and explanation. This development triggered an increase of quantitative studies dealing with creation of a system for risk assessment and a model forecasting ethnic conflicts, civil wars or political instability (Goldstone, Bates, Epstein, Gurr, Lustik, Marshall, Ulfelder & Woodward 2010). For instance, Collier & Hoeffler (2004) focuses on economic factors driving insurgents towards armed conflict. On the other hand, Fearon & Laitin (2003) emphasize political parameters, whereas Ross (2004) and Franke, Hampel-Milagrosa & Schure (2007) study relation between political instability and state control of natural resources.

Despite the scholars mentioned above, Hegre (2004), Elbadawi & Sambanis (2002), Bates (2008) and Gurr (2000) do not focus only on one main cause of conflicts. They investigate several relevant causes and interactions to predict civil or ethnic wars.

Moreover, research group leading by Ted Robert Gurr developed the *Risk Assessment Model of Ethnopolitical Rebellion* to observe 268 politically significant minorities and subsequently to identify rebellions which are the most likely to escalate armed conflict. Similar project *The State Failure*, where T. R. Gurr is involved too, developed an early warning system for U.S. foreign policy planning. This project deals with state failure and state collapse to warn against possible wars and conflicts.

Furthermore, some efforts to adjust these models to a specific geopolitical area appeared in recent years. Namely, researchers of the State Failure Task Force developed model forecasting ethnic wars in Muslim countries due to the unique relation of Muslims to nationalism and their low acceptance of the dualistic distinction between sacred and profane modes of political and social behaviour. 'Muslim model of ethnic war' proves higher accuracy in correct postdictive classification of political instability than the global model of ethnic war.

Similarly, the space of the former Soviet Union is considered to be very different from the other countries. Due to the totalitarian rule of Communist party, many serious ethnic conflicts were frozen. Moreover, Stalin's politics of ethnic issues laid the foundation for many other ethnic conflicts due to the forced migration of many ethnic groups (e. g. Crimean Tatars, Chechens) and border changes of administrative districts without respect to the ethnic and historical borders. Thus, after the collapse of the USSR, many ethnic conflicts became hot (e. g. Russo-Chechen conflict) or latent threat (e. g. Russian minority in Estonia) to the political stability of the successor states.

To sum up, for the reason of this Soviet heritage shared by all successor states of the former USSR causing very serious threat of an outbreak of many ethnic conflicts, the specific model of risk assessment for these states is very important.

2 The Objectives

As written above, the main objective of the proposed diploma thesis is to identify the key parameters driving ethnic groups at risk towards armed conflicts as a response to their needs, interests and poor living conditions and to assess relative importance as well as interactions of these parameters.

3 Theories

Current research on ethnic conflicts provides many explanations for causes of these conflicts. As written above, some scholars emphasize economic factors driving people towards fight (Collier & Hoeffler 2004), whereas the other scholars focus on political factors (Fearon & Laitin 2003).

Nevertheless, there are no comprehensive explanations for the space of the former Soviet Union. Furthermore, Russian scholars dealing with ethnic conflicts and ethnic groups like Tishkov (1997) do not develop a theory explaining ethnic violence. Their research and writings are mostly description of historical facts.

Moreover, the space of the former Soviet Union has so many possibilities for an outbreak of an ethnic conflict not only due to the negative Soviet heritage but also due to the high number of ethnic groups living there. Furthermore, there are so many factors considered to be driving factors for ethnic conflicts. For instance, non-democratic regime, multi-ethnic state, low GDP per capita or ethnic group having historical experience with oppression by reason of ethnic origin can be found in many post-Soviet states. Thus, there is an unanswered question why Chechens fought against Russians and Tatars did not, although these two ethnic groups lived in very similar conditions. It can be put so many similar questions, whereas there is no systematic theory to answer them.

Owing to these facts, it is possible to identify either one main cause nor some main causes of ethnic conflict. More likely, causes of ethnic conflicts in successor states of the

former USSR seem to be combination of many factors.

For the purpose of this proposed diploma thesis, it is chosen the Copenhagen School approach to analysis of security because it enables to deal with classical as well as non-classical security threats. The Copenhagen School expanded agenda of security studies beyond the traditional military-political dimension. Thus, state ideology, key state institutions or identity of an ethnic group can be relevant referent objects as well as a state. Consequently, there are more possible existential threats. For the purpose of the widen conception of security studies, the Copenhagen School classifies 5 sectors of the security agenda (military, political, societal, economic and environmental sectors) with different threats to the different referent objects. This division facilitates and put more precisely an analysis of security (Buzan, Wæver & De Wilde 1998). This approach to security threats enables to deal with many various threats to ethnic groups.

4 Hypotheses

The main hypotheses of the proposed diploma thesis:

Hypothesis 1: *Permanent exclusion of an ethnic group from the rest of society will be a cause making ethnic conflict more possible.*

Hypothesis 2: *Significant distinctiveness of an ethnic group from the rest of society will be a cause making ethnic conflict more possible.*

It is supposed that permanent exclusion of an ethnic group from the rest of society having significant effect on a possibility of ethnic conflict can be exclusion from political 'decision making', exclusion from distribution of economical benefits of state and exclusion from participation in building of nation or state identity.

Hypothesis 1a: *Permanent exclusion of an ethnic group from political 'decision making' will be a cause making ethnic conflict more possible.*

Hypothesis 1b: *Permanent exclusion of an ethnic group from distribution of economical benefits of state will be a cause making ethnic conflict more possible.*

Hypothesis 1c: *Permanent exclusion of an ethnic group from participation in building of nation or state identity will be a cause making ethnic conflict more possible.*

It is supposed that ethnic conflicts are more likely if an ethnic group significantly differs from the rest of society in religion and language.

Hypothesis 2a: *Significant linguistic distinctiveness of an ethnic group from the rest of society will be a cause making ethnic conflict more possible.*

Hypothesis 2a: *Significant religious distinctiveness of an ethnic group from the rest of society will be a cause making ethnic conflict more possible.*

5 Methodology

The proposed diploma thesis is quantitative research based on statistical methods. The proposed research is divided into four main steps:

- 1st step:** identification of ethnic groups in armed conflict and ethnic groups in peace
- 2nd step:** identification of common characteristics of ethnic groups in conflict and ethnic groups in peace
- 3rd step:** assessment of correlations between ethnic conflict and common characteristics of ethnic groups in conflict, assessment of correlations between peace and common characteristics of ethnic groups living in peace
- 4th step:** identification of key parameters and their values for prediction of an ethnic conflict

5.1 Sampling

The proposed research will include 36 significant ethnic groups (see Appendix I) of the Soviet successor states ¹ in time period 1994 - 2008.

5.2 Variables

All variables are categorical and some of them have the binary character.

5.2.1 Dependent Variable

Data for dependent variable will be gained from the database of the Uppsala Conflict Data Program (UCDP).

Ethnic conflict	0	less than 25 battle-related deaths in one calendar year
	1	at least 25 battle-related deaths in one calendar year

5.2.2 Independent Variables

Data for dependent variables will be gained from the database of The Minorities at Risk (MAR) Project.

¹The Russian Federation, Ukraine, Belarus, Estonia, Latvia, Lithuania, Georgia, Azerbaijan, Armenia, Tajikistan, Uzbekistan, Turkmenistan and Kyrgyzstan.

NAME OF VARIABLE	VALUE	DESCRIPTION
Exclusion from political 'decision making'	0	no discrimination
	1	remedial policies (substantial under representation)
	2	no remedial policies (substantial under representation)
	3	social exclusion (substantial under representation)
	4	exclusion and repressive policy
Exclusion from distribution of economical benefits	0	no discrimination
	1	remedial policies (significant poverty)
	2	no remedial policies (significant poverty)
	3	social exclusion (significant poverty)
	4	restrictive policy
Restrictions on religions	0	no restrictions
	1	activity informally restricted
	2	activity somewhat restricted
	3	activity sharply restricted
Restrictions on use of language	0	no restrictions
	1	activity informally restricted
	2	activity somewhat restricted
	3	activity sharply restricted
Linguistic distinctiveness	0	unknown
	1	group speaks the same language
	2	group speaks multiple languages
	3	linguistic assimilation
Religious distinctiveness	0	unknown
	1	different sect within same religion as the dominant group
	2	multiple sects, some different from dominant group
	3	different religion

5.3 Analysis

As written above, the proposed diploma thesis will be based on several statistical methods.

Descriptive statistic will be used for the identification of common characteristics of ethnic groups in conflict and ethnic groups in peace (2nd step).

Pearson's chi-square test will be used for the assessment of correlations between of common characteristics of ethnic groups in conflict/ ethnic groups in peace and ethnic conflict (3rd step).

Loglinear analysis will be used for the identification of key parameters and their values for prediction of an ethnic conflict (4th step).

6 The Structure of Diploma Thesis

1. Introduction
2. Theories on ethnic conflict
3. Current development in the successor states of the USSR
4. Methodology and data
5. Empirical results
6. Conclusion

7 Appendix I: List of Ethnic Groups

Azerbaijan	Armenians
	Lezgins
	Russians
Belarus	Belarus
	Russians
Estonia	Russians
Georgia	Abkhazians
	Adzhars
	Ossetians (South)
	Russians
Kazakhstan	Germans
	Russians
Kyrgyzstan	Russians
	Uzbeks
Latvia Lithuania	Russians
	Poles
	Russians
Russia	Avars
	Buryat
	Chechens
	Ingush
	Karachay
	Kumyks
	Lezgins
	Roma
	Tatars
	Tuvinians
	Yakut
Tajikistan	Russians
	Uzbeks
Turkmenistan	Russians
Ukraine	Crimean Russians
	Crimean Tatars
	Crimean Tatars
Uzbekistan	Russians
	Tajiks

8 Appendix I: Bibliography

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