

ERC Starting Grant**Research proposal (Part B section 2 (B2))****Section 2: The Project proposal (max 15 pages + Ethical Issues)****1 State-of-the-art and objectives**

If conflict is the problem, is democracy the solution? Armed conflict and political violence not only result in devastating direct violence, but also impede growth, threaten public health, and exacerbate poverty (Collier et al. 2003; Gates et al. 2010). Promoting democracy is frequently forwarded as the answer. UN peace-building policies, for example, often encourage the introduction of elections in combination with military operations (e.g., UN General Assembly 2009, 6). However, academic research on the conflict-reducing effects of democratic institutions provides only ambiguous support for a policy of ‘democratization for peace’. After accounting for economic development, Collier and Hoeffler (2004) show that democracies have no less conflict than non-democracies. If anything, partial democratic institutions and even the process of democratization itself are associated with a *heightened* risk of internal armed conflict (Hegre et al. 2001; Fearon & Laitin 2003). But this finding may not be robust when a coding problem in the Polity dataset is accounted for (Gates et al. 2006; Vreeland 2008). Democracies seem to be better able to avoid extremely lethal conflicts than non-democracies, although the conflicts that do arise tend to last longer (Gleditsch, Hegre and Strand 2009). For these reasons, Fearon and Laitin (2003) and Collier and Hoeffler (2004) largely dismiss the “democraticness” of institutions as relevant to explaining whether internal conflicts are likely to occur. Rather, they argue that the risk of conflict depends on the extent to which potential insurgents are able to recruit, organize, finance, and sustain the insurrection. Hence, they see conflict as partly a function of the economic opportunities available to the rebels (Collier and Hoeffler 2004), and partly due to the military and organizational capacity of the government (Fearon and Laitin 2003, 2004). Accordingly, they see promoting economic growth, or assisting weak states militarily, as more effective than strengthening democratic institutions.

This conclusion is premature, however. This project will demonstrate that the ambiguous relationship between democracy and conflict is due to a set of theoretical and methodological shortcomings in the literature. Earlier studies rely on highly aggregated democracy indicators, disregarding that political institutions are complex, and that their effectiveness depends on how specific institutions work together. A proper treatment requires that the various ‘dimensions’ of democratic institutions (e.g., elections, executive constraints, electoral system, centralization) are accounted for. Moreover, almost all studies make use of one single source for democracy data, despite the existence of several alternatives. They treat all actors within a country as uniform. South Africa under apartheid, for instance, is regarded as a democracy despite the fact that the majority of the population did not have the right to vote. Existing studies also by and large disregard the short-term conflict-increasing effects of change to political institutions, and differences in the severity or consequences of conflict. Semi-democracies may have more frequent and longer conflicts than non-democracies, but they tend to cause fewer deaths; the net implication of this is unknown. Finally, they are also insensitive to how political institutions work indirectly through their impact on other social conditions such as education and economic growth. Earlier studies, then, may be inconclusive because of weaknesses in the research designs rather than a complete irrelevance of democratic institutions for conflict resolution.

The objective of this project is to reassess the role of democracy for the risk of political violence. The work will be carried out in six separate work packages:

1. **THEORETICAL FRAMEWORK:** Develop a theoretical model of institutional equilibria to guide the empirical analysis. (WP1)
2. **DATA COLLECTION:** Collect data on disaggregated political institutions and develop indices of major components as stated in the theoretical model (WP2)
3. **ELECTIONS AND VOTING:** Systematically explore theoretically and empirically the importance of *elections* for effective conflict resolution. Specifically, we will look at elections as a source of violence, electoral fraud, and coalition formation in legislative voting. (WP3)
4. **EMPIRICAL TESTING:** Test the empirical implications, both static and dynamic, of the theoretical framework outlined in WP1 using the data developed in WPs 2 and 3. (WP4)
5. **TOTAL AND INDIRECT EFFECTS:** Investigate the indirect and long-term effects of political institutions on the incidence and severity of political violence. (WP5)
6. **FORECASTING:** Apply knowledge gained from the project to a forecasting exercise in order to evaluate the total effect of complex models, and to create a set of future likely conflict scenarios, possible policy responses, and expected outcomes. (WP6)

Together, the six approaches will address the methodological shortcomings in the literature and put the knowledge concerning the relationship between democratic political institutions on a considerably more secure footing, theoretically and empirically. Three challenging innovations should be highlighted. First, the project's ambition is to link the theoretical framework outlined here much more closely to the empirical testing than is the case in the current literature. Secondly, the project involves a meticulous effort to collect alternative data and consistent focus on evaluating robustness of results. The third challenging aspect is the forecasting exercise, which will help assessing the substantive importance of the research, and, if successful, could represent a valuable new tool for policy making.

The project will concentrate on internal armed conflict as defined in Gleditsch et al. (2002), but also look into other forms of political violence such as electoral violence, violence against civilians by armed groups and governments, and violent conflicts between groups that do not involve a government. All datasets developed in the project will be made publicly available, and all published studies will be accompanied with replication datasets.

2 Methodology

The project will utilize a wide variety of methodological approaches, producing not only large-N cross-national studies, but also single-country studies, and comparative studies of a limited number of countries or conflicts. The country studies will focus on seven countries: Afghanistan, India, Kenya, Kosovo, Lebanon, Nigeria, and Tanzania. This set of countries displays considerable variation both in terms of political institutions and of political violence between them and internally, facilitating a comparative design. Preliminary studies of data availability also indicates that the data needed in WP3 are available in several of them. Data and resource constraints preclude covering all seven in depth in all parts of the project, but we will maximize the amount of case overlap to feed into a systematic comparative study.

The studies produced in this project will make use of a variety of statistical methods. The cross-national studies will analyze panel datasets of countries observed annually over the 1960–2010 period. In the studies where we seek to identify more precisely the actors that relate to national or local governments, we use the 'dyad' defined by the relevant actor and the government it sorts in under. Both frequentist and Bayesian approaches will be applied. The latter approach is increasingly used in political science, mainly due to its flexibility and ability to estimate models that have been considered too hard for standard maximum likelihood estimation (Gill 2008; Jackman 2009). A key advantage of the Bayesian approach is its ability to incorporate the uncertainty of all aspects of the model. This has been shown to be particularly useful when creating and incorporating indexes of democracy and development (Høyland, Moene and Willumsen 2009; Pemstein, Meserve and Melton 2010; Treier and Jackman 2008).

The conflict literature has been overly focused on statistical significance and less attentive to the ability of models to predict conflict correctly. This is particularly problematic when policy recommendations is an aim of the analysis (Ward, Greenhill and Bakke 2010; Weidmann and Ward forthcoming). The literature also invests insufficiently in evaluating the robustness of the results that are published (Hegre & Sambanis 2006). The project will make systematic use of out-of-sample predictions to evaluate the model specifications we consider. This naturally expands to the forecasting sub-project summarized in WP6, where out-of-sample evaluation is an integral part. The project will also make use of three independent sources of data on political institutions in order to cross-validate the data and the inferences we draw from analyzing them (see WP2).

As stated earlier, one shortcoming in the literature is the treatment of countries as homogenous, aggregating over all potential insurgents in a country. Differences between groups in the amount and intensity of conflict between the group and the government are in most cases central to the explanation of conflict (see for example Horowitz 1985). Country-level studies are suitable only when it is plausible that the entire country can be divided into a government-opposition interaction. Theoretically, an actor-focused approach is preferable. In our comparative case studies, possible solutions to the problem are straightforward. In our statistical studies, however, identifying the relevant actors is often difficult – how can we identify empirically groups that are formed endogenously as part of the political process? Once conflicts become violent we know what actors are active, but in situations with little conflict we cannot be certain we observe the actors that are potentially violent. More broadly, it is difficult to identify all social groups that a country is made up of – group membership is fluid and overlapping, and it is difficult to know in advance which groups become activated in conflicts (Tronvoll 2009).

We will pursue two solutions to this problem throughout the studies in the project: One is to follow up on the recent studies of Cederman and Girardin (2007) and Cederman, Wimmer and Min (2010). Their unit of analysis is the ethnic group-country-year (e.g., Tamils vs. Sri Lanka in 2008). They rely on country expert coding to determine each ethnic group's access to executive power. We will use their setup to supplement some of our country-level studies, and use the geographically coded version of these data (Weidmann 2009;

Weidmann, Rød and Cederman 2010). We will also study how their coding of exclusion relates to our institutional variables, as their data say little about the precise institutional forms of exclusion.

The second solution is to use geographical units as proxies for groups, assuming a one-to-one correspondence between relevant groups and those that live in a particular area (Buhaug and Rød 2006; Raleigh and Hegre 2009). This will be the setup of the studies that use the Uppsala Conflict Data Project (UCDP) conflict events data as sketched above.

The UCDP armed conflict dataset (Gleditsch et al. 2002; Harbom and Wallensteen 2010) will be a primary source of conflict data. As a complement to the civil war data covering 1945–2009, the UCDP is currently collecting a new dataset which will cover the 1989–2010 period and provide the exact geographical location and date of conflict events in civil wars. This dataset also covers other types of political violence, such as armed conflicts between communal groups and violence against unarmed civilians by agents of the state or non-state actors. These new, disaggregated data will play a central role in examining some of the propositions in this project, including questions about the impact of elections on political violence.

Below, we sketch the six work packages of the project. The numbering of the work packages implies a rough sequencing: The project will focus on WP1 and WP2 in the first two years. Parts of WP3 and WP5 can be initiated before WP1 and WP2 are finalized, whereas WP4 and WP6 will start up after the completion of WPs 1 and 2.

WP1. THEORETICAL FRAMEWORK

The relationship between political institutions and political violence is complex, and the project will cover many aspects of this relationship both empirically and theoretically. This work package aims to tie together and expand on several strands of the scholarly literature on political institutions and violence in order to build a generalized model of institutional-economic equilibria.

Several explanations of the frequent conflicts in political systems that combine democratic and authoritarian traits have been posited. Muller and Weede (1990) and Hegre et al. (2001) argue that insurgencies occur when institutions allow opposition springing out of the majority of the population to organize activities against the government, but where the ruling elites retain sufficient power to deny the opposition the concessions they demand. Fearon and Laitin (2003) argue that semi-democratic institutions are incomplete institutions and that their tendency to violent conflict reflects an underlying power struggle between elites and the opposition. A point of departure for most studies is the idea that fully developed democratic institutions allow groups to locate agreements that the vast majority finds acceptable, but Collier and Rohner (2008) note that (poor) democracies are disadvantaged in efforts to strike down insurgencies instigated by narrow groups that disagrees with the majority or do not care. Strand (2007) and Snyder (2000) indicate that the problem lies with systems with elected officials that rule without any constraining bodies.

We will develop a model that specifies the conditions under which political violence is most likely, and that to a large extent is compatible with these arguments. The model will expand on Gates et al. (2006), who in turn build on Eckstein (1973) and Gurr (1974). Gates et al. (2006) consider three potentially reinforcing ‘dimensions’ of political institutions: rules for recruitment to the executive, extent of constraints on the executive, and openness of popular participation. Their argument states that institutional constellations are durable when all dimensions are mutually reinforcing. Autocratic systems are stable because they concentrate power in a limited number of hands and institutionally cut off other actors from power. Democratic systems are stable because they institutionally balance the power of actors, restricting actors from excessive power that would allow them to destabilize the system. Inconsistent systems – systems that combine power-dispersing and power-concentrating aspects – are inherently unstable because they allow specific actors a power base from where they can force through changes to the institutions, or obtain outcomes that are sufficiently unacceptable to others to provoke attempts to alter institutions. The project will develop this model further, in part by specifying additional dimensions to this model, e.g. effectiveness of institutions or degree of decentralization.

Changes to political institutions are closely interlinked with political violence (see for instance Fearon and Laitin 2003; Hegre et al. 2001; Cederman, Hug and Krebs 2010), and a natural expansion of the model is to link the use of violence to the model of the institutional contest in order to address the interplay between institutions, repression, and conflict (Moore 1998). The expansion will address questions such as: How and when do governments use violence and repression to prevent institutional change? When does the opposition have incentives to use violence to affect institutions? What kind of institutional characteristics tend to trigger violence? If many institutional transitions are violent, what are the implications of this model for the relationship between political institutions and political violence? What kind of transitions are particularly likely to become violent? May conditions that favor the use of violence have an impact on when inconsistent systems become durable?

It is clear that political institutions do not exist divorced from the economic and military context of a country. Further theoretical development involves linking the institutional model of institutional consistency to a model of ‘real’ or economic power bases. Formal institutions empower those that have political office and the social groups they are accountable to. Ultimately, however, these groups can resist attempts at overturning these institutions only if they have access to means of coercion outside the institutions, be they military, economic, or external allies. Actors that can threaten to leave the country taking important assets with them (e.g. their financial or human capital) have a basis for influence outside the system of institutions that allow them to force through institutional changes. Most important are economic factors. Actors that control the military can retain this control only if they are able to channel a sufficient amount of benefits to the military apparatus, which depends on the availability of incomes that can be secured by the use of force. Autocratic political systems tend to be stable when, for instance, much of a country’s wealth is locked in agricultural land or oil (Boix 2003), and democracies when the median income is high (Przeworski et al. 2000) – they tend to be ‘modern dynamic pluralist societies’ (Dahl, 1989). The international context is also important, since external actors often affect the power base of domestic actors. Powell (1996) argues in the context of interstate conflict that violent conflict is most likely to occur when there is a mismatch between the distribution of power and the status quo distribution of benefits. Under other circumstances, negotiated solutions are more probable. When it comes to relations between groups within a country, negotiated solutions may take the form of changes to political institutions.

Eckstein (1973), Gates et al. (2006) and most of the relevant literature rely on verbal arguments. The project will also adapt formalized models to sharpen the theoretical argument and to better support the statistical modeling. Building blocks to model the link between institutions and conflict may be found in the models of conditions for regime change developed by Przeworski (1991), Weingast (1997) Acemoglu and Robinson (2000, 2001) and Boix (2003). We will also look into how institutions affect incomplete information and commitment problems, which are central to the formal bargaining models of, for instance, Fearon (1995) and Garfinkel and Skaperdas (2000). Powell’s (1996) model may be useful to represent how changes in the structural conditions under which political systems operate affect the incentives to use force to alter the distributive regime in a political system, and possibly also to the incentives to accommodate demands by means of changes to political institutions.

We expect this model of institutional-economic equilibrium to clearly specify conditions under which institutional change and political violence is likely. It has also a potential to explain change in the underlying equilibria, since economic and international factors may change independently of the domestic institutional constellations. The exact timing of changes in institutionally unstable situations, however, is difficult to specify, and will depend on external shocks or triggers that temporally affect the power balance. Elections give rise to one particularly relevant class of trigger events, which is the topic of WP 3. In WP 4 we briefly sketch tests of some of the empirical implications of the model.

WP2. DATA COLLECTION

The Polity dataset (Jagers and Gurr 1995; Marshall n.d.) is by far the most widely used dataset on political institutions in the current conflict literature. It was developed based on the Eckstein and Gurr model, and its construction allows us to test many of the implications from the theoretical model described in WP1. An exclusive reliance on the Polity dataset is very problematic, however. First, Polity’s coding criteria are very non-transparent. For example, they do not explicitly state what determines a given coding for the constraints indicator, and the participation component of the measure involves political violence in its definition (Hegre et al. 2001, Vreeland 2008). Second, the Polity dataset covers only a limited number of sub-indicators. Third, over-reliance on any single dataset makes it difficult for the research community to assess the robustness of empirical results by using alternative datasets. To address this, we will supplement the Institutions and Elections Project (IAEP) dataset, the best available alternative source, and compile a wide range of other alternative sources to extend the coverage and cross-validate the sources against each other. We will also develop new indices of our dimensions of political institutions, including a new aggregate democracy indicator.

Part 1: Expanding the Institutions and Elections Project dataset

Currently, the best available data source by far for our project is Binghamton University’s *Institutions and Elections Project* datasets (abbreviated IAEP). The data covers all countries with populations larger than 500,000 for the 1972–2005 period. The institutional part of IAEP records information on seven general categories of political institutions, including the following: constitutional requirements, legislature characteristics, executive-legislature relationship, the judiciary, centralization of government, the electoral

structure, and the rules governing elections. The elections part records a variety of aspects of every national election, including the date, whether there were protests or boycotts, whether the scheduled election was cancelled or postponed, whether there was violence, whether the election was considered competitive and contested, and voter turnout. Details on the datasets are provided in Regan, Frank and Clark (2009).

The project will work with Professor Patrick Regan to expand the coverage to cover the entire 1960–2010 period. Expanding the temporal coverage by about 50% is necessary to be able to estimate the dynamic models described in WP 4, since regime changes and outbreaks for political violence are fairly rare events.

- **Output 1** *Expand coverage of the IAEP dataset to the entire period 1960–2010*

Part 2: Crossvalidating, imputing, and reagggregating datasets

We will also make use of other publicly available cross-national datasets in order to cross-validate both the IAEP and Polity datasets, assess the sensitivity of our results to different operationalizations, construct indices, and fill in missing observations for indicators that are not included in the IAEP and have limited coverage.

Useful sources (beyond IAEP) are Vanhanen (2000) and Coppedge, Alvarez and Maldonado (2008) on competition and participation in elections; Bueno de Mesquita et al. (2003) on information on the size of the ‘selectorate’ and ‘winning coalition size’; Alvarez and Przeworski (1996) on a set of election-based democracy criteria; Schjølset (2003) on electoral systems; Freedom House data on political rights; Lindberg (2006) on elections in Africa; Hadenius and Teorell (2007) on quasi-electoral institutions in authoritarian regimes; and the NELDA dataset (Hyde and Marinov 2010) on the context and conduct of elections.

Sources with regard to institutions of horizontal accountability include Djankov et al. (2003); La Porta et al. (2004) on the independence of the judiciary and constitutional rigidity; Cukierman (1992) on independence of the central bank; and Beck et al. (2001) and Henisz (2000) on checks and balances. These sources are excellent but have limited coverage, and are candidates for supplementary coding. We also intend to collect data on how constitutions are protected, and, if possible, on institutions that secure transparency in budgeting and public expenditure processes.

The IAEP includes information on elections, constraints, and centralization of government, but says little about the ability of the political system to implement decisions. To assess the *effectiveness* of political systems, we will look into the extensive databases on political institutions developed by Banks (n.d.), the Quality of Government Institute, University of Gothenburg, and Phil Keefer and associates at the World Bank. Gandhi and Przeworski (2007) include information on the effectiveness of the civilian head of state, and ICRG produce data on the effectiveness of the bureaucracy and extent of corruption (Fjelde 2009).

Data on power-sharing, peace agreements, and other events particular to the post-conflict situations exist and will be brought into the database (sources include Kreutz 2010; Harbom, Høgladh and Wallensteen 2006; and a NSF-funded project on power-sharing institutions directed by Scott Gates and Kaare Strøm).

- **Output 2** *Cross-validation of various sources of institutional indicators*
- **Output 3** *Expand coverage of selected indicators not included in the IAEP dataset*

Part 3: Developing indices

The IAEP dataset and other sources record information on well over 100 detailed characteristics of political institutions. It is necessary to treat groups of indicators simultaneously to be able to use them analytically. With the active use of the theoretical framework in WP2 as the guideline, we will use statistical models to aggregate the indicators to indices of the most salient dimensions of political institutions. We will also work on developing an aggregate index of the uni-dimensional notion of ‘democracy’ for use in selected models.

- **Output 4** *Develop a set of indices of institutional dimensions*

WP3 ELECTIONS

Attempts to promote democracy around the world have to a large extent focused on elections: sometimes with massive outside support, elections are held even in extremely volatile countries. The literature indicates that elections alone are insufficient to prevent political violence (see e.g. Snyder 2000). Moreover, as discussed further below, the changing characteristics of political institutions within a country increase the likelihood that we observe political violence (Hegre et al. 2001, Regan and Bell 2010, Cederman, Hug & Krebs 2010). In particular, backsliding from democracy appears to be a risk-prone process. What we lack, however, is a good empirical understanding of the role of triggers that turn politically unstable periods into violence. Elections, in particular fraudulent, postponed, or cancelled ones, are likely to be powerful triggers. If the evidence suggests that backsliding from democratic institutions toward more autocratic ones is associated with an increased likelihood of a civil war, then elections that are not seen as legitimate or are

postponed or cancelled will provide the proximate trigger that turns the institutional change into open rebellion. The project will study first how elections and defects in their implementation affect the incidence of political violence, and then two sources of poor representation will be studied in detail: electoral fraud, and voting behavior that creates permanent minorities in legislatures.

Part 1. Elections as a source of violence

Electoral violence may be instigated by governments and opposition parties alike. In the run-up to national and local elections in places like Kenya and Nigeria, observers have come to anticipate widespread political violence rather than democracy dividends. Violent elections in some cases threaten to undermine the population's trust in democratic procedures and to derail the process of democratic transition. In spite of the inherent importance of the topic, election-related violence remains an under-studied research field.

There are no studies on the patterns and trends in the prevalence of electoral violence, with the exception of a limited overview by Straus and Taylor (2009). Some quantitative works examine the relationship between elections and the onset of civil war (Strand 2007; Collier, Hoeffler and Söderbom 2008; Cederman, Gleditsch and Hug 2009). However, much electoral violence falls outside this definition, such as violence between groups, e.g. political parties, local militias, and security forces' use of violence against civilians. Electoral violence tends to be more local, less organized, and without pre-declared aims. Moreover, the annual temporal resolution of these studies is inappropriate to capture the temporal sequencing of violence and elections that typically happen within weeks or days.

The UCDP conflict events data allow us to map the geographical and temporal patterns of electoral violence, and identify time trends and cross-country variation. Using quantitative methods, the project will examine the empirical determinants of variations in electoral violence within this time period. It will examine whether institutional variables, such as the level of executive constraints, electoral system, and opposition group participation can explain which elections turn violent. It will also study the impact of socio-economic variables, such as poverty levels and literacy rates, on electoral violence. We will analyze our seven country cases in particular detail.

- **Output 5** *A global account of electoral violence, describing the frequency, magnitude, and empirical determinants, across different types of institutions, with expanded coverage for our selected country cases*
- **Output 6** *A global study of how our institutional variables explain which elections turn violent, and how electoral violence affects institutions*

Part 2. Electoral fraud

Many developing and post-conflict countries have limited institutional capacity for implementing and overseeing democratic elections, which makes it possible for power-seeking elites to manipulate the electoral process to their own benefit while still operating with seeming legitimacy. These manipulations, however, threaten the peace-fostering effect of democratic participation, since citizens whose votes are manipulated are effectively excluded from the democratic process. Electoral fraud is a frequent phenomenon that often invalidates the official source for the data we have on elections. Fraud can be institutionalized through gerrymandering or disenfranchisement; it can happen during elections through for instance ballot-box stuffing; or it can occur after elections through fraudulent counting.

The project will produce a new disaggregated dataset of the regional occurrence of election fraud for a limited number of countries. While information on electoral manipulation is available cross-nationally, there is little information about regional variation in its occurrence within particular cases, information needed to conduct a sub-national study. Information about these manipulations will be obtained (i) from incident reports that are made available by various election observation organizations, and (ii) forensic analysis of published election results. Forensic analysis allows detecting subtle attempts at electoral fraud that can be difficult to document. The method exploits deviations from the digit patterns in election results we would expect under random generation of numbers (which is what occurs in the absence of manipulation). These differences can then be picked up by statistical tests. Forensic tests have been proposed by Mebane (2008) and Beber and Scacco (2008), and have successfully been applied to the 2009 presidential election in Afghanistan (Weidmann and Callen 2010). Data availability will to some extent dictate the choice of cases. We know that the required data exist for Afghanistan, Kosovo, and Nigeria. The ultimate goal is to generate regional-level data for a set of countries in order to enable cross-national comparisons. The localized fraud data will be matched with conflict events data to study how electoral fraud triggers violence at the local level.

We will also produce a cross-national 'fraud-corrected' version of the Vanhanen participation and competition dataset (for a limited time frame) based on the data referred to above as well as information on

the regularity of political leader changes from the Archigos data set (Goemans, Gleditsch and Chiozza 2009) to feed into the databases developed in WP2.

- **Output 7** *Sub-national electoral fraud datasets*
- **Output 8** *Cross-national and sub-national studies of the de-legitimizing effects of election fraud with respect to political unrest*
- **Output 9** *Study how our institutional variables explain which elections become fraudulent*

Part 3. Permanent minorities in parliaments

Democratic representation may not reduce incentives for political violence if representatives are not able to affect the final decisions of elected bodies. Building on the large literature on voting in parliaments in established democratic systems (Carey 2009; Godbout and Høyland forthcoming; Poole and Rosenthal 1997; Rosenthal and Voeten 2004) and a few studies of emerging democratic systems (e.g. Sircar and Høyland 2010), we propose to study legislative coalition formation in countries divided along ethnic, religious, or linguistic lines. We will seek to uncover to what extent legislative coalition formation across ethnic lines helps prevent political violence. This will be achieved by juxtaposing information on parties (and the constituencies they represent) that end up in permanent minorities (i.e., voting *along* ethnic lines) with information on conflict behavior involving these constituencies from the UCDDP conflict events dataset. Are systems that facilitate coalition formation across ethnic lines less prone to experiencing permanent legislative minority and, as a result, less at risk of political violence involving these minorities? We investigate this by studying a series of political systems with varying degree of provision for minority involvement, and compare it with actual formation of voting coalitions and occurrence of political violence. Sufficient voting data are available for several of our country cases (e.g. India, Afghanistan, Lebanon, Kosovo).

This may be complemented by studies of legislative coalition formation prior to and in the immediate aftermath of conflicts in the cases where such data exists (e.g. the Irish Free State in the 1920s and 1930s).

- **Output 10** *Investigation of legislative politics and political violence in several of our country cases*

WP4. EMPIRICAL TESTING

The empirical implications from the theoretical framework outlined in WP1 will be tested using the data developed in WP2 and WP3.

Part 1: Static implications

The theoretical framework has a set of ‘static’ implications for how different constellations of political institutions affect the probability of internal armed conflict and other forms of political violence. As indicated in earlier studies (Hegre et al. 2001, Fjelde 2010, Vreeland 2008, Regan & Bell 2010), elections alone are insufficient to reduce the risk of violence. One dimension that may be more likely to be effective on its own is institutions of constraint. In principle, even non-elected governments that are constrained by formal rules and an independent judiciary may act in ways that do not provoke political violence – partly because the actions are perceived as legitimate, and partly because governments are restrictive in their own use of violence. More plausibly, elections and constraints mutually reinforce each other, as follows from the theoretical argument stated above and shown in Gates et al. (2006) and Strand (2007). This is also indicated in studies that show that democratic political institutions do reduce the risk of conflict in middle- and high-income countries, and that the military capacities of governments are largely irrelevant to the risk of conflict in authoritarian countries (Hegre 2003; Collier and Rohner 2008). It is likely that political institutions that open up for elections but do not constrain the elected executive are unable to prevent political violence. One mechanism through which violence occurs is the incentive to manipulate elections in order to win offices that open up for the use of power with few restrictions. As suggested in the theoretical framework, these institutions are inconsistent, and their conflict proclivity may also depend on the extent of consistence with non-institutional bases of power.

- **Output 11** *Study of whether constraining institutions are required for the institution of election to be effective in conflict reduction*
- **Output 12** *Study of whether constraining institutions reduce electoral fraud and electoral violence*

Part 2: Dynamic implications

Studies such as Hegre et al. (2001) and Cederman, Hug and Krebs (2010) carefully control for the importance of recent changes to political institutions in (‘static’) studies of the risk of civil war onset, but do not take into account the fact that conflicts also lead to regime change (Gates et al. 2010). As will be

developed in WP2, many, if not most, political conflicts are over the nature of the political system itself. The dynamic interplay between democratization and civil war is essential in the theoretical work by Boix (2003) and Acemoglu and Robinson (2001), for instance. If institutions are endogenous to the underlying conflict there may be strong limitations to our ability to change conflict through manipulating institutions. Moreover, results derived from looking only at the observed distribution of institutions and conflict may yield highly misleading conclusions. Hence, empirical studies must consider the possible role of endogenous institutions and its implications for research design, and the inferences that we can draw. Some studies model the dynamics of regime change (e.g. Epstein et al. 2006, Bueno de Mesquita et al. 2009), but no studies investigate institutional changes and conflict simultaneously.

The project will address these issues by developing the theoretical model described above. We will analyze the implications of the model by means of transition probability models.¹ Institutional and conflict variables are typically categorical (conflict/no conflict; elections/no elections). A transition probability matrix specifies the probability of transition from a state at $t-1$ to a state at t (Taylor and Karlin 1998). A logit or multinomial logit model can be used to estimate these probabilities as functions of explanatory variables by including past values of the outcome variables on the right hand side of the equations. In addition, models will include ‘structural’ variables (e.g. socio-economic characteristics) as factors influencing transitions, and interaction terms to model which transitions happen more frequently under given conditions. This estimated transition probability matrix is at the core of the simulation procedure described below. To analyze variables such as institutions and conflict that exhibit reciprocal causation, the transition model can easily be expanded to model probabilities of transition between the combination of states – e.g. the probability of transition from (no conflict, not democracy) to (conflict, democracy). The transition model then allows estimating simultaneously all transitions between the two variables as specified functions of their past values and exogenous variables.

All hypotheses that are stated at the country level can be tested in models that allow specifying such a transition probability matrix. The procedure can easily be expanded to situations where the unit of analysis is the country-actor dyad in one form or another. It allows capturing the effect of trigger events that may explain transitions from one equilibrium to another (e.g., elections, extreme human rights violations, economic shocks). In particular, we will look at how UN peace-building and peace-keeping missions may affect this dynamic. We will also study how ethnic exclusion as coded in Cederman, Wimmer and Min (2010) affects the stability of systems.

This approach allows identifying one aspect which is of particular importance to policy makers: The theoretical framework in principle opens up for a complete endogeneity between institutions and conflict. However, empirically it is possible that some institutions are less vulnerable to change than others, at least under given conditions. An independent central bank may be sustainable in cases where strong parliaments are not. Moreover, some institutions can more easily be promoted and sustained by external actors. The empirical model outlined above allows identifying such institutional components.

These models require a large number of transitions to be estimated. It is an aim to be able to model all possible transitions between three states of institutions (autocracy, inconsistent, democracy) and two states of conflict (conflict, no conflict). Five equations are required to estimate this, and the number of parameters to estimate hence becomes large. This is why extending the IAEP dataset to cover a 50-year period is essential.

- **Output 13** *Study whether political institutions that are inconsistent have a higher risk of changes to political institutions and to violent conflict*
- **Output 14** *Study of whether political institutions that are in disequilibrium with the non-institutional bases of power have a higher risk of changes to political institutions and to violent conflict*
- **Output 15** *Study how ethnic exclusion from the executive affects the stability of political institutions*

WP5. TOTAL AND INDIRECT EFFECTS

Collier and Rohner (2008) indicate that a ‘disadvantage in counter-insurgency efforts’ partly explains why democracies are no less conflict-prone than non-democracies. Democratically elected governments are therefore vulnerable to frequent and long-lasting insurgencies, particularly in poor countries (Hegre 2003; Collier and Rohner 2008), but are to a lesser extent than autocratic governments the *source* of the discontent fuelling conflicts. On the other hand, several studies show that democratic governments are less repressive (e.g., Colaresi and Carey 2008; Collier and Rohner 2008), kill fewer civilians during civil wars (Eck and Hultman 2007), and have fewer battle-related fatalities in internal conflicts (Gleditsch, Hegre and Strand

¹ Such models are sometimes referred to as ‘dynamic probit models’ (Przeworski et al. 2000). Jackman (2000) also advocates employing such models as well and suggests bayesian approaches to estimate them.

2009). If this is correct, the focus on the risk of *onset* of internal conflict in previous studies does not provide a complete picture of the relationship between political institutions and conflict: it is necessary to also take into account the severity and duration of conflicts. The project will introduce this reasoning into the theoretical argument and to rephrase the relationship between political institutions and violence in terms of the total consequences rather than a narrow focus on the *onset* of violence.

- **Output 16** *Study how political institutions (and their constellations) relate to the incidence and severity of political violence in the long run, taking variation in duration and severity into account*
- **Output 17** *Study variations between institutions and constellations of institutions in the impact of conflicts on socio-economic conditions (such as health and poverty)*

The transition models described above are useful also here as they allow for testing simultaneously the onset, escalation, duration, and recurrence of conflict. The simulation procedure described in WP6 allows estimating the total effect of changes to institutions as observed over long periods and across countries.

Another reason why empirical studies have failed to uncover a robust effect of political institutions on the risk of conflict is that they are restricted to the *direct* effect of democracy, controlling for other factors such as income level, inequality and human capital. However, a large literature identifies democracy as an important determinant of various socio-economic factors. Theoretical and empirical studies indicate, for example, that political institutions impact strongly on education (see e.g. Baum and Lake 2003; Lindert 2005; Acemoglu and Robinson 2006), economic inequalities (e.g. Acemoglu and Robinson 2000; Bueno de Mesquita et al. 2003), growth in GDP per capita (see e.g. Baum and Lake 2003; Doucouliagos and Ulubasoglu 2008), and the *variability* of economic growth rates (see Rodrik 2008). All these factors are also empirically associated with political violence (Hegre and Sambanis 2006). If political institutions are causally prior to these intervening variables, then it is not appropriate to just control for them. The specification problems are compounded by the fact that these factors also have causal impact on both political institutions and conflict.

Particular attention will be given to so-called ‘horizontal inequalities’ (i.e. inequalities between ethnic, religious or regional groups). These are associated with increased risks of political violence (e.g., Cederman, Gleditsch and Weidmann 2010; Østby 2008; Østby, Nordås and Rød 2009; Stewart 2008). There is little research on how political institutions shape such inter-group inequalities. Although different dimensions of inequality are often interlinked (e.g. social, political, economic), one cannot assume that all different forms of inequality always change in concert, or even change in identical directions. According to horizontal inequality theory, the risk of violent group mobilization should be higher when people are convinced that their socioeconomic deprivation is caused by deliberate discrimination by the state (Gurr, 2000; Stewart, 2008). Conversely, if a country’s government introduces policies designed to reduce horizontal inequalities, this may reduce the political salience of the prevailing inequalities, even when the actual redistributive effect is rather limited (Brown and Langer 2010). The advance of democracy is generally expected to lead to a decrease in political inequality among groups, but it does not guarantee decreases in socio-economic inequalities. We will look into how different sub-components of democracy affect the level and persistence of various kinds of socioeconomic inequalities between individuals and groups, and assess the indirect effect of institutions through the redistributive channel. Data sources on horizontal inequalities at both the national and sub-national level include Cederman, Gleditsch and Weidmann (2010) and Østby (2011).

We will work at specifying models that take into account endogeneity and complex interplay between democracy, socio-economic factors and conflict by means of 2SLS and 3SLS models. A tricky issue here is to find appropriate instruments – variables that explain a sizeable part of the variance of an endogenous independent variable, but that are not ‘directly’ related to the dependent variable. It is typically extremely difficult to identify variables that satisfy these criteria. A candidate instrument for democracy used in Knutsen (2011) is based on whether a political system originated within one of Huntington (1991)’s waves of globalization. We will explore the validity of these instruments and search for new instruments for institutions, conflict and economic development.

Endogeneity issues may also be tackled through taking advantage of the time lags between the hypothesized cause and effect. More specifically, multi-equation Granger models may provide an additional method for estimating reciprocal relationships between conflict, political institutions and specified aspects of economic development. Feng (2003), for example, applied such methods, among others when disentangling the relationship between democracy and various economic institutional structures.

- **Output 18** *Study of the indirect effects of political institutions through socio-economic factors*
- **Output 19** *Study of the indirect effects of political institutions through horizontal inequality*
- **Output 20** *Study of patterns of reciprocal causation between political institutions, conflict, and socio-economic factors*

WP6. FORECASTING

Given that it is possible to influence the institutional setup of a country, to what extent would this lead to a reduction in the likely amount of political violence? Previous studies of this relationship are able to say very little to this effect. A common shortcoming in statistical studies is an excessive focus on statistical significance and less on the substantial importance of results (Ward, Greenhill & Bakke 2010). Prediction or forecasting is an excellent vehicle for this purpose. In the research outlined in WP3–5, it is necessary to divide the problems up in smaller pieces that are analytically manageable. Estimated coefficients, then, typically relate to a single observation in a panel dataset and say little about effects that accumulate over several time periods and across observations. To be able to evaluate the *overall* effect of changes to political institutions, we will make use of simulation techniques. The PI has developed a model and routine for forecasting that will be very useful for the project (Hegre et al. 2009).² The current applications of the routine simulates changes in the status of a conflict variable and forecasts into the future, but can be employed for any categorical variable and for in-sample and out-sample predictions for historical periods.

The general setup of the simulation procedure is as follows: (1) Make assumptions about the distribution of values for all exogenous predictor variables for the first year of simulation and about future changes to these. We base the simulations for future forecasts on UN projections for demographic variables and IIASA projections for education; (2) Formulate a set of scenarios for out-of-sample values for core explanatory variables; (3) Draw a realization of the coefficients of the statistical model, calculate the probabilities of transition between levels for all countries for the first year, based on the realized coefficients and the projected values for the predictor variables, and randomly draw whether a country experiences conflict, based on the estimated probabilities; (4) Update the values for the explanatory variables. A number of these variables, most notably those measuring historical experience of conflict and the neighborhood conflict variables, are contingent upon the outcome of step 3; (5) Repeat (3) for each year in the forecast period, and record the simulated outcome, and repeat (2)–(4) a number of times to even out the impact of individual realizations of the multinomial logit coefficients and individual realizations of the probability distributions.

Since the statistical models we estimate include temporal and spatial lags, the simulation model is able to capture the dynamic and long-run effects of explanatory variables. The routine generates forecasts with unprecedented accuracy in conflict research. In Hegre et al. (2009) we show that the model specification used in this paper is able to predict about 63% of conflicts (minor or major) 7–9 years after the last year of data, with about 3% false positives. The project will further develop the simulation procedure to increase predictive ability and employ it to forecast also developments in political institutions. Among various developments, we will work with a Bayesian alternative version of the procedure (West and Harrison 1997).

As one component of effective presentation of the results from our research, we will use the simulations to evaluate policy response scenarios. To facilitate this, the project will complement selected studies with simulation-based evaluations of various policy scenarios. The approach will take as its point of departure a policy formulation, e.g. ‘strengthen the independence of the judiciary in all countries where UN peace-keeping operations are deployed’, and specify at (2) in the above procedure. The research outlined above will indicate the likely effectiveness of this intervention. Such interventions are likely to affect the country or the government-actor dyad over a long period, and may also spill over to neighboring countries and other dyads. The use of a dynamic forecasting approach will make it possible to assess the total effect of the intervention.

The project will also produce a comparative case study of our selected seven countries. This study will combine a more detailed account of their recent political history with a summary of the detailed studies described above.

- **Output 21** *Forecast political institutions and conflict based on the theoretical framework and empirical research described above*
- **Output 22** *Evaluation of policy recommendations*
- **Output 23** *Comparative case study*

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² This article currently has a ‘revise and resubmit’ from a prominent international journal.

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