To Fight Or Not To Fight?

Institutions of State, Social Trust

and Recurrence of Domestic Armed Conflict

by

Szymon M. Stojek

(Under the direction of Patricia Sullivan)

Abstract

Recurrence of domestic armed disputes is rapidly becoming the most prevalent form of conflict in the international system. Scholarly work and practical responses to this phenomena have largely focused on economic development, third party intervention or the identity divisions in post Civil War states. This paper argues that institutions of state, and specifically prioritizing inclusive institutions and fair institutions of order, signal *post civil war state's* commitment to enduring peace in the short-term and provide fair space for cross-group interaction in the long-term. I test those assertions plotting measures of *trust promoting institutions* on probability of violence recurrence at three different time points to assert institutional effects in short and longer time horizons. Strong support is found for the pacifying role of credible and fair institutions of order for all time periods, while inclusive institutional effects become a significant factor in the long-term. The significance of the findings of this research rests on the clear implications it has for practical policy output that is within the reach of post civil violence states.

INDEX WORDS: Civil War, Social Capital, Social Trust, War Recurrence, Domestic
                 Armed Conflict

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CHAPTER 1

CIVIL WAR RECURRENCE AND ITS IMPLICATIONS

Over the last decade and a half, there has been increased scholarly interest in civil war phenomena. The core of that interest according to Collier (2003) and his colleagues is that "[m]ost wars are now civil wars" (2003:1). Fearon & Laitin (2003) note that a conservative estimate of civil war human life cost between 1945 and 1999 eclipsed 16 million fatalities, which is five times greater than life loss in interstate wars for the analogous period (75). As is also now apparent, the duration of civil wars is increasing, elongating space for destruction and suffering (Fearon 2004). The World Bank's special report found that civil wars are in essence "a development in reverse", increasing conditions of absolute poverty, spreading disease, and sheltering 95% of world's hard drug production (Collier 2003).

Coincidentally, the economic, social and political consequences of civil wars are also found as the core motivations for civil war onset. In this sense the very conditions found to correlate with observations of civil war onset are exacerbated at the end of such conflict, throwing states into vicious circle of the so called conflict trap. The result is that nearly 50 percent of civil wars return to violence within five years of the cessation of hostilities (Collier et al. 2003). The phenomenon of civil war recurrence is well documented within the literature (Collier, Hoeffler & Soderbom 2008, Elbadawi & Sambanis 2002, Elbadawi, Hegre & Milante 2008, Hartzell, Hoddie & Rothchild 2001, Walter 1999, Fortna 2003, Fortna 2004). Indeed, recurrence of civil war may be soon the greatest problem on the security map of the world. Thus, perhaps not surprisingly, Elbadawi and colleagues note that in the 2005-2006 period all civil war onsets were in fact civil war recurrences (2008:453).

This paper begins by noting that, in essence, the aftermath of civil war creates opportunities and motivations for renewed violence as state's economic, social, and political life is in flux while domestic groups are locked in a rancorous polarization of ex-belligerents that carries well beyond the official timeline of conflict and perpetuates conditions for repeated violence. This polarization plays out in a precarious environment of inter-group mistrust. That notwithstanding, some states manage to break out of the conflict trap[1] and assure a return to relative normality. Those empirical observations inform the general research question that guides this paper - What factors can influence chances for durable peace in a post-civil violence societies?

To begin answering this question, I propose that in the aftermath of civil war one of the most deficient commodities is *social trust*. Doyle & Sambanis (2006, 31) assert "we see the problem of rebuilding a war-torn state as one of rebuilding social trust." In fact, economic development, redistribution and security are all exacerbated by either inter-group distrust, fear of government, or rebel defection from the peace agreement. While few elements of social fabric are in full control of the government, institutions of state constitute important common experience in societies emerging from violence. Further, institutional sources of social capital literature suggested that inclusive and fair institutions can aid in generation of social trust (Hooghe & Stolle 2003). In turn those observations animate the specific research question this research pursues - Does universality and fairness of state's institutions affect chances for durable peace?

Following Rothstein (2005), I develop an institutional approach to social capital formation. First, I argue that social trust in a post civil war society is in deficit and that universal access to (inclusive) institutions and institutions of order (Rothstein 2005, Rothstein & Stolle 2008) can generate credible relations in societies. Such institutions can provide a space where defection is either impractical or usually apprehended and punished, creating a strategic ecology for reduction of social mistrust and lowering suspicion between government

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[1]this terminology is borrowed from Collier (2003) and colleagues report for World Bank.

and other groups in a state. It is not the claim of this paper that institutions of state can transform a civil war state into a high-trust Scandinavian society. Rather, institutions of state in the post civil war have a capacity to enhance social trust and allow for cooperation and development of norms of reciprocity (Putnam, Leonardi & Nanetti 1993, Hooghe & Stolle 2003). In this sense, governments' institutional priorities may affect social trust, by both signaling in the short term, and developing in the long term, credible social commitments to peaceful coexistence.

I develop my argument at the intersection of the respective literatures of civil war and social capital. Indeed, I argue that the vast majority of suggested explanations and remedies to civil war recurrence that found support in empirical studies can be categorized as problems of inter-actor credibility or trust. Therefore, it is puzzling that social trust scholarship has not been considered and indeed integrated into civil war literature. I suggest that institutions of state can increase generation of social trust, or alternatively reduce social mistrust, by prioritizing inclusive institutions and fair institutions of order. In a sense, post-conflict peace in a divided society is a collective good, strained by inherent domestic security dilemma. While mobilization for rebellion has been presented as a collective action problem, it is also possible to characterize tenuous post civil violence peace as a collective good requiring commitment. Promotion of social trust is therefore a long-term solution to collective commitment to peace, cooperation and development of norms of reciprocity. The provision of inclusive goods and the relatively effective prosecution of offenders creates a powerful signal of a government's commitment to peace, which provides the space for inter-group interaction that can reduce social mistrust.

I test this proposition and previously developed rival hypotheses by utilizing the 2009 edition of Uppsala University Armed Conflict Data, which measures civil war episodes between 1946 and 2008 (Gleditsch 2002). I measure the resilience of peace two, five and ten years after the initial cessation of hostilities. Such measurement and set up allows me to control for competing explanations while assessing the influence of my main explanatory variable

in the short and longer time horizons. Findings suggest that while economic development is an important factor in reducing violence recurrence, fair institutions of order and inclusive institutions play an increasingly important role in the intermediate and long-term, assuring permanent rather than temporary transition away from a society of violence. Further, socio-economic equity has a powerful effect on the probability of violence recurring. The following chapter reviews literature on civil war violence and social capital, laying the foundation for the theoretical contribution of this research.

CHAPTER 2

LITERATURE: CIVIL WAR RECURRENCE AND SOCIAL CAPITAL

The confluence of Civil War becoming the most prevalent and most destructive armed conflict and the obvious intractability of effective resolution to domestic armed conflict has attracted significant scholarly interest. Among numerous explanations for civil war onset and recurrence, institutional solutions comparatively receive the most attention. Regardless of whether it is market liberalization to achieve economic growth (Collier et al. 2003), redistribution of resources among ethnic groups (Walter 2004), power-sharing arrangement (Hoddie & Hartzell 2003, Reynal-Querol 2002, Lijphart 1980) or, at the extreme, partition of a state (Tir 2005, Johnson 2008), solutions to the problem of civil war and its recurrence are sought in institutions and their credibility in structuring social interactions and providing an environment of security for conflicting identities. This chapter reviews the extensive literature and competing explanations for success and failure of post civil war transitions, followed by a brief introduction to social trust and institutions scholarship. It is at the intersection of those literatures that I find the foundations for this research contribution.

2.1 IDENTITY, CONFLICT AND TRUST

One of the most common explanations for domestic conflict focuses on the study of conflicting identities in plural societies. Within civil war literature, explanations for identity formation and its subsequent interaction with the security of a state are varied. Regardless, however, if the motivations for identity mobilization are based on actual ethnic origin (Geertz 1963), belief in common descent (Horowitz 2000, Weber 1948), elite manipulation (Lake & Rothchild

1998), or common communicative frame (Deutsch 1966), identity is often used for articulation of root cause of conflict.

Indeed, Ted Robert Gurr (1993) argues that ideological and ethnic cleavages matter in creating space for violence and that those cleavages, combined with lack of accommodation from state or outright repression, can lead to civil violence. Other scholars note that the distribution of factions in a society affects the potential for violence. Ethnic polarization of relatively few groups, or single-group dominance seems to be especially destabilizing (Horowitz 2000, Reynal-Querol 2002), while a high level of ethnic fractionalization, though not clearly connected to conflict onset (Collier & Hoeffler 2004, Fearon & Laitin 2003), may increase war recurrence (Doyle & Sambanis 2006, ch. 3). Tir and Jasinski (Tir & and 2009) note diversionary aspects of domestic ethnic mobilization in times of economic hardship and argue that identity mobilization may reduce inter-group trust and increase domestic conflict potential. Indeed Paul Collier (Collier 2002) notes that in-group trust can increase the potential for violence (36), while cross-group trust reduces its probability (38). In other words, social trust in the aftermath of civil war is a direct consequence of violence on mobilization along the identity lines where inter-identity trust is high while cross-identity trust is low. I extend this observation and argue that the weakness of identity polarization weakens social trust and increases chances for the recurrence of war.

2.2 Political Solution: Democratization, Power-sharing, Partitions

2.2.1 Partitions

One of the solutions, though perhaps an extreme one, to conflict-inducing identity polarization is a partition of state, where physical separation of the people and institutions with a new state border abates conflictual co-existence (Kaufmann 1998, Horowitz 2000, Posen 1993, Sambanis 2000). Recent studies find some support for the claim that partitions promote peace, stability, and even democracy (Tir 2005, Chapman & Roeder 2007, Johnson 2008). Post-partition borders that are agreed upon by all parties create more stable and legitimate

states (Tir 2005, Gibler 2010), which may result in more homogenous states with higher levels of political and social stability. Indeed, partitions that result in ethnic homogeneity tend to be more successful in preventing future violence (citation). However, considering the diversity of ethnic composition of the vast majority of states, such a partition could lead to a city-state style solution to civil war recurrence, a proposition few sovereign states are likely to embrace.

2.2.2 DEMOCRACY AND POWER-SHARING

An additional explanation for peace endurance centers around the post-Civil War state regime type. Post civil war democratization, as well as pre-war experience with democracy, it is argued, reduces the motivation for civil violence by providing forums and political tools to address grievances and collective demands within institutional contestation, rather than through violence. The pre-war democratic experience, as well as higher levels of political liberalization, seem to increase chances for durable peace.

In addition, proportional representation systems (Lijphart 1969, Reynal-Querol 2002), as well as full democracies and full autocratic systems are more stable than semi-democratic and transitioning states (Hegre 2000, Hegre 2004, Mousseau 2001, Hegre, Ellingsen, Gleditsch & Gates 2001). Therefore, Barnett (2006) argues for the relaxation of the liberal democratic bias of individual rights and a focus on republican peace-building where the legitimacy of state power is validated by the achievement of collectively accepted goals (96). I extend this argument and assert that specific institutional solutions can affect peace endurance and that those can theoretically be present regardless of regime type.

Power-sharing arrangements are often argued for as instruments for durable peace. Institutional solutions, it is suggested, of post-conflict power sharing among ex-combatants increases chances for durable peace (Glassmyer & Sambanis 2008, Hartzell & Hoddie 2003, Walter 1999, Walter 2002). In fact, the very process of negotiation and implementation of peace arrangement is said to generate costs and send credible signals to former adversaries

(Hoddie & Hartzell 2003, Hartzell & Hoddie 2007). Hartzell (1999) and Fortna (2003) find increased levels of institutionalization of agreements as positively influencing peace duration. Licklider (2001) argues that the pacifying effect is present if such power-sharing agreement includes all warring parties, while Nilsson (2008) finds that major parties to recent conflict are sufficient for stability of a peace accord.

A similar role is played by the process of disarmament, demobilization and reinsertion (DDR) of former belligerents into society (Humphreys & Weinstein 2007, Kingma 1997, Knight 2004, Collier 2003). The process of DDR and provision of occupational alternatives to soldering is a costly signal of commitment to peace for all parties, and an important one.

Indeed, Barbara Walter (1999, 2002) argues that successful implementation of post-Civil War agreements first requires reciprocal demobilization, where combatants disarm "gun for gun" in a form of a tit-for-tat strategy (Axelrod 1984). Second, monitoring and verification to assure a transparent process reducing assumed risks. Finally, credible commitment, the core of Walter's theory, suggests that third-party monitoring and strict power-sharing in military, economic and political realms of state is assured (Walter 2002: 22-28). Walter sums up the goal of implementation of those strategies, stating "[i]n theory, combatants should be able to apply at least [those] three strategies of cooperation to the problem of demobilization [...] in order to build an atmosphere of trust" (Walter 2002:22). The solution may be sought in investment into the institutional solution that can generate credible commitment for parties to the agreement.

Hartzell & Hoddie (2007) agree that the role of state institutions in the post-civil war country is crucially important to peace survival. Specifically, they focus on "power-sharing and power-dividing institutions" as defining credible post-conflict social interaction. The argument suggests that political, military, territorial and economic dimensions of power inform the perceived security of actors in the state, and as such, power-sharing in those areas increases chances for durable peace. Indeed, the causal mechanism poses that state "institutions serve to reduce uncertainty regarding the regulation of human behavior that

they can help facilitate peaceful social interactions" and "enable groups to contemplate relying on methods other than violence to secure their goals" (2007:21). Peace, in other words, is vulnerable to cheating as any other collective good, and the security dilemma makes this situation so much more complex.

In this sense, institutional solutions such as power-sharing or, at an extreme, partition are designed to increase collective commitment to stability and peace, reducing incentives for violent contestation. Doyle & Sambanis (2006, 38) characterize rebellion and peace as a collective good (or bad) which is inherently vulnerable to the collective action problem. In this sense, the government is to distribute power and structure interaction to increase a sense of security and confidence in its commitment to peace the ultimate collective good of post-war societies. Institutional solutions to power and resource-sharing are therefore instrumental to peace, as they credibly structure interactions between the parties, reduce security dilemma, and increase confidence in a state's institutions and viability of peace. My theory extends those observations, arguing that not only sharing and dividing power but also providing fair space for intergroup interaction defines institutional role in post-conflict societies. Indeed, I further specify this argument to suggest that specific institutional commitments are more likely to enhance peace through the provision of space for social trust that can resolve this extreme instance of collective action problem.

2.2.3 Peacekeeping and External Intervention

External third-party intervention can also be seen as an attempt to credibly structure commitment to peace (Walter 2002). Interventions and peacekeeping in post civil war are said to promote peace through monitoring or enforcement of agreements, resolving the cooperation dilemma and increasing trust in peace arrangements (Doyle & Sambanis 2006, p. 65-6). Indeed, third party enforcement of peace agreements as well as peacekeeping missions (Hartzell, Hoddie & Rothchild 2001, Hartzell & Hoddie 2003, Glassmyer & Sambanis 2008, Collier, Hoeffler & Soderbom 2008) were found to increase chances for peace endurance. It

is not surprising that a third-party presence may reduce cross-groups' suspicion of defection from peace in a post civil war state. Such a third party can implement monitoring, facilitate information flow, and provide enforcement-reducing chances for surprise attack by either protagonist. The level of such intervention may differ between diplomatic, economic and military actions and some scholars found that the more comprehensive involvement of peacekeeping missions, the greater chance for the preservation of peace (Regan 1996, Doyle & Sambanis 2006).

Interestingly, Doyle and Sambanis find that the UNPKOs are not effective while hostilities are in progress, but are an important tool for implementing complex negotiated post-war settlements (2006, p.5). Page Fortna (2004) and Barbara Walter (2002) find support for peacekeeping as a contributing factor to the stability of peace in interstate and intrastate conflicts, though clear limitations of this approach are also discussed in the literature (Smith & Stam 2003, Fortna 2008). Clearly some interventions are thought to increase stability of post-war agreements, enhancing the space for cooperative behavior.

My theory sees third-party involvement, in the absence of a trustworthy government, as an institution of credible commitment to peace and a monitoring tool to assure relative inter-group social justice. Ultimately, the role of the above-mentioned institutional solutions is to increase inter-group trust to allow for peaceful coexistence and cooperation assuring durable peace.

2.2.4 Economic Explanations for Domestic Armed Conflict Recurrence

Lack of social justice or deprivation and greed lie at heart of the economic explanations for civil war recurrence. This approach suggests that conflict is rooted in inter-group relative economic deprivation and resulting grievance. The economic logic of civil war recurrence is similar to the economic rational model of war onset. Doyle and Sambanis summarize this view by noting that "we would observe a failure of the peace if the expected utility of new war is greater than the expected utility of peace" (2006, 43).

Specifically, the low level of economic development and concomitant poverty gener-ates grievances and increases the likelihood of civil war onset (Collier 2003, Elbadawi & Sambanis 2002, Collier, Hoeffler & Soderbom 2008). In fact, economic explanations focus on the calculus of costs of productive (peaceful) versus appropriative (forceful) behavior (Grossman 1991). This calculus is often responsive to the process of modernization (Bates 2001), and associated with decreasing authority of the state (Hirshleifer 2001). In this sense, weakened state institutions provide inadequate utility alternative to the benefit that can potentially be drowned from a return to violence.

Such weakness of state institutions equals the presence of opportunity for violence (Fearon & Laitin 2003) where natural resource endowment can lead to instability as lumber, crude oil, or gems and precious metals can be harvested and sold for profit to support rebellion and benefit opposition elites (Collier & Hoeffler 2004). Similarly, support of external actors such as ethnic kin or diasporas (Elbadawi & Sambanis 2000) and weakness of state apparatus increase likelihood of civil war as financial support for such effort is available and no credible disincentive is assured. This illustrates how the institutional weakness reduces credibility of peace allowing both motivation (Collier 2003), and opportunity for rebellion (Fearon & Laitin 2003). In other words, the post civil war society is changed in terms of its expectations for peaceful cooperation and collective action.

Indeed, Collier and others (2003) note that one of the legacies of civil war is a loss of intergroup cooperation and social capital resulting in a transition from an equilibrium where there is an expectation of honesty to one in which there is an expectation of corruption (21). This expectation of cheating, I argue, informs the domestic security dilemma, reduces inter-group trust and cooperation and increases the likelihood of return to violence.[1]

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[1]The idea of trust is not unfamiliar in the strategic cooperation literature. In Robert Axelrod's (1984) iterated strategic games the tit-for-tat strategy proved the ultimate strategic cooperation model, based on the strategic concept of trust under reputation of being firm but fair. However, to trust and cooperate is the initial default choice which tit-for-tat assumes at the start of the game. Cooperation in this sense is ultimately a reveled preference for trust. Players therefore necessarily begin under conditions of trust where even strangers are given the benefit of doubt. Such trust cannot ultimately be assumed in the post civil war environment, yet may be a crucial condition in

In effect, I argue that if institutions cannot provide reliable space for peace; social trust is low, as credibility of institutional arrangements is questionable. Therefore, the allocation of resources to particular institutions may be an important signal disincentivizing a return to violence. The literature on institutional sources of social capital provides a compelling argument as to how allocation of state resources into particular institutional solutions can help generate social trust. I extend this argument suggesting that in the post-Civil War states, allocation of resources provides signals in the short-term and defines in the long-term cooperation between ex-combatants. I argue that state institutions have an important role in bringing institutional and economic disincentives to a recurrence of violence, through the building of social trust. Further examination of my approach requires a brief introduction of social capital literature, especially its institutional variety.

2.3   Institutions of State and Social Trust

The Social Capital literature is a rich and complex research program, however arguably the main focus of its investigation is social trust and collective action problems. Margaret Levi suggests that trust is a complex concept that enables individuals to take risks in dealing with others, solve collective action problems, or act in ways that seem contrary to standard definitions of self-interest (1998: 78). This property of trust defines its instrumental role in creating better communities, governments and countries. Indeed, social trust has been linked to better government (La Porta 1999, Putnam, Leonardi & Nanetti 1993, Kumlin 2002), more productive economies (La Porta 1999, Putnam, Leonardi & Nanetti 1993, Knack & Keefer 1997, Sobel 2002, Fukuyama 1995, Hooghe & Stolle 2003), and ultimately the solution to the perennial problem of collective action (Levi 1998, Uslaner 2002, Putnam 1995, Putnam 2000).

There seems to be little doubt that more social trust is better for any community or state. However, social trust is notoriously difficult to change at the individual and aggregate

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avoiding the conflict trap. The solution to this mistrust, I argue, may lay in the institutions of the state.

levels, and indeed some argue, nearly immutable once established during the early forma-tive age of an individual (Uslaner 2002). Nonetheless, the richness of civic associations has been identified as a social glue and a lubricant of cooperation (Putnam 2000). Scholars suggest increasing richness of civic associations as prescription for more trusting societies (De Tocqueville 1945, Putnam, Leonardi & Nanetti 1993, Brehm & Rahn 1997, Stolle 1998, Putnam 2000, Sobel 2002). [2]. However, in an environment of low inter-group trust, strong associations may be a part of the problem.

Indeed, Margaret Levi (1996) argues that the number and strength of associations increases intra-group trust, but does not ultimately equal reciprocity across society. Sim-ilarly, Eric Uslaner's (2002) definition distinguishes between two types of social trust: generalized trust which extends one's definition of community beyond people we know to include people different from ourselves, and particularized trust narrowing that definition to people similar to us and known to us personally. Further, this distinction directly corresponds to Robert Putnam's discussion of the dark side of social capital, which can be considered in terms of the abundance of intra-group bonding that solidifies blocks of interests, while the deficit of inter-group bridging exacerbates generalized trust (2000, 21-23, ch.22). How then can networking make or break social trust?

The contentions above suggest that the same network of association that over time can establish trust within a given group, can be used to organize against the out-group, a case especially evident in societies with multiethnic cleavages (Crepaz 2007, Doyle & Sambanis 2006, Putnam 2002, Uslaner 2002, Kuenzi & Lambright 2005). I extend this argument and propose that this role of associations is especially cogent in the civil war societies where the natural civic association pattern is along the lines of recent conflict, thus perpetuating wartime social divisions. Putnam similarly observes, "social capital, by creating strong in-group loyalty, may also create strong out-group antagonism" (2000, 23). Since associations

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[2]for opposing view see (Uslaner 2002, ch. 4)

may be part of the security dilemma, how can a post-Civil War state generate scarce social trust?

While most social capital scholars claim that generalized trust leads to better states, governments, societies and institutions, placing the agency at the socio-cultural level (Putnam, Leonardi & Nanetti 1993, Putnam 2000, Fukuyama 1995, Uslaner 2002, La Porta, Lopez-de Silanes, Shleifer & Vishny 1997). Rothstein (2005) and Rothstein & Stolle (2008) redefines this putative causality claiming that institutions of state should be investigated as sources of social capital. State institutions, they argue, are in a position to provide a space for inter-group contact.

2.3.1 INSTITUTIONS AND SOCIAL TRUST

The key property of the institutional context that can promote social trust is fairness of operation (Kumlin 2002, Kumlin & Rothstein 2005). Specifically, Rothstein (2005) notes that the administrative side of the government is in charge of supplying citizens with their "social rights" and is qualitatively different from partisan institutions of chief of government or legislative body. As Rothstein explains "[o]ne thing that makes these institutions trustworthy is precisely the opposite of the partisanship, namely impartiality [which] implies fairness in procedures and no corruption, clientelism, nepotism or discrimination" (2005, 109).

In this sense, a government's commitment to impartial administrative institutions provides an environment capable of increasing perceptions of stability and a space for fair interaction between groups. Rothstein (2005) identifies the causal logic of this proposition suggesting that people who interact with unfair, biased institutions make inferences from perception of (a) public officials, (b) people in general and (c) own actions. When all three are perceived as engaging in a form of corrupt behavior, one logically infers that other people in general cannot be trusted (Rothstein 2005, 121). The sense of partiality closely relates to the concept of inequality. Eric (Uslaner 2002) provides a very strong evidence linking equality and social trust. He notes that the causal arrow goes both ways in a form of virtuous circle.

In fact, Uslaner proposes that institutions can influence trust if their policies are directed at promoting equality (Uslaner 2003). In other words, not regime type but type of policies define institutional influence on trust, and do so through promoting equality.

In a post civil war society, such a perception inevitably leads to suspicion of corruption benefiting ones former adversary while disadvantaging ones own group, thus informing the domestic security dilemma, and reducing levels of social trust. Therefore I extend this theoretical contention to argue that in the post civil war state, fair institutional performance can facilitate normalization, promote generalized trust and eventually lead to inter-group cooperation.

Table 2.1 presents alternative hypotheses advanced in literature to explain civil war recurrences. Hypothesis in bold are those included in main models of this paper as control variables.

Identity	
Higher levels of ethnic fractionalization increase probability of violence recurrence.	+
Political	
Wars ending in victory decrease likelihood of violence recurrence.	−
Civil wars ending in partition are less likely to experience violence recurrence.	−
Territorial civil wars have increased likelihood of violence recurrence.	+
Higher levels of fatalities suffered in war decrease likelihood of violence recurrence.	−
More democratic states have lower probability of war recurrence.	−
Wars ending in negotiated settlement have lower likelihood of violence recurrence.	+
Economic	
Higher levels of economic development decrease probability of violence recurrence.	−
Social Capital	
Higher levels of income equality will decrease probability of violence recurrence.	+

Table 2.1: Existing Explanations: Alternative Hypotheses

2.3.2 INSTITUTIONAL POLICIES: SOCIAL CAPITAL, EDUCATION AND CIVIL WAR

The literature on education and civil war speaks directly to the argument of this paper. Mukherjee (2006) notes that governments behavior after civil war significantly affects former insurgents reaction and commitment to peace. Former insurgents pay attention to power

distribution and governments resource commitments as signals about credibility of peace agreements (Walter 2004). For example, Collier (2003, 125-6) and colleagues argue that post civil war governments investments in military development send a negative signal to former insurgents increasing tensions and exacerbating trust into an internal security dilemma. They speculate that investment into general public programs such as education and healthcare may send the signal of a governments commitment to peace (2003, 83). Consistent with this thesis Thyne (2006) finds that in a global sample of states, investment in education and expanding enrollment decrease the risk of civil war. Many other studies note education as an important factor in long-term economic inequality which consequently contributes to civil war onset (Ferranti & Walton 2004, Glickman 2000, Deng 2001, Peters & Richards 1998, Oyefusi 2008).

The above observations bring us closer towards determining what role state institutions may have in increasing trust and reducing conflict recurrence in post civil war states. While, as Thyne (2006) notes, investment in education is an important signal, he falls short of specifically explaining why it is more salient than, say, infrastructure projects. I seek to expand this observation, drawing on institutional sources of social capital theory. My contribution therefore relies on bridging between two literatures and developing a logical deductive theory of the institutional role in post-civil war social trust building. Below I develop my argument drawing from both literatures and deducting testable hypotheses.

CHAPTER 3

THE ARGUMENT

The argument outlined below proposes that in post-civil war societies peace duration can be affected by the role of domestic institutions through the provision of space for inclusive interaction and promotion of inter-group social trust. In such a post-conflict environment, societies find themselves with many commodities in scarce supply. Populations are severely materially deprived as well as deeply demoralized by violence. Nevertheless, perhaps the scarcest commodity of all is that of inter-group trust. In fact, while intra-group trust bonds factions in rancorous polarization versus former enemies, inter-group bridging is rare and deficient in social trust. This lack of social trust exacerbates tenuous security arrangements and increases the probability of reigniting violence. Much needed social trust, I argue, can be encouraged by investment in inclusionary institutions such as a universal education system and strong and impartial legal institutions that do not overtly discriminate against any group. In this sense, properly structured policies of prioritization and resource allocations into institutional development may lead to reduction of domestic security dilemma. Fair and inclusive institutions can help increase social trust and conversely decrease social mistrust,[1] effectively reducing chances for violence recurrence. The success of those trust generating institutions affects the chances for durable peace.

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[1]Throughout this paper I will refer to *increasing social trust* and *decreasing social mistrust* to signify the same effect of reducing security dilemma and increasing space for cooperation, reciprocity and peaceful coexistence

3.0.3 Security Dilemma and Trust Deficit in post-Civil Violence States

The post-civil war environment may be characterized as an intense domestic security dilemma set in a precarious, low trust environment (Posen 1993, Kaufmann 1996). Horowitz (2000) argues that inter-ethnic distrust polarizes societies, where trust exists inside the ethnic groups and networks, but not between them (Hardin 1998, Smith 2001). Page Fortna describes post civil war peace formation as happening "among deadly enemies with strong incentives to take advantage of each other and in an atmosphere of deep mistrust" (2003, 367). It is hardly controversial to suggest that former belligerents have difficulty trusting the social other and, therefore, remain engaged in intra-group mobilization to assure their own security. While inter-group trust allows for cooperation with strangers, or people outside of own group (La Porta et al. 1997), such trust is lacking, and obstacles to interaction and cooperation across society's networks are pervasive. My argument notes that inter-group cooperation is especially important, as such cooperation in a post conflict state has a potential for reduction of social mistrust and alleviating of the security dilemma.

3.1 State and the Security Dilemma: Institutional Priorities and Social Trust

As noted above, an intense sense of insecurity, natural in the immediate aftermath of violence, results in heightened sensitivity to the behavior of the former opponent. Consequently, my argument proposes that the fairness of institutions of state is especially scrutinized in terms of inter-group competition for resources. In this sense, governments priorities and power distribution among actors affects prospects for peace. If a position of one group is perceived to be enhanced by the institutions of state through favoritism, nepotism, or bribery (Rothstein 2005), mistrust will be deepened and security dilemma exacerbated. On the other hand, if the institutions of the state are perceived as impartial and fair, they provide a space for fair inter-group relations, reducing implied suspicion, assuaging security dilemma, and promoting

social trust. This is the logic of the institutional role in promotion of trust and peace in the aftermath of episodes of civil violence.

3.2 Institutions of Inclusion and Order

My theory argues that the fairness and impartiality of the institutional context in a post-civil war state can be accomplished via investment in inclusionary programs and credible legal institutions. Such institutions have consequences in the *short and long-term* that, through reduction of intergroup mistrust, can reduce the probability of reverting to violent struggle. As such, inclusionary policies are best based on investment in universal access, rather than needs-tested institutions. Specifically, universal access institutions increase social trust (or in this analysis reduce mistrust) as no group in society can be perceived as taking advantage of a resource that is by definition universally accessible to citizens (Kumlin & Rothstein 2005, Rothstein 2005, Crepaz 2007, Crepaz & Damron 2009).

I borrow the definition of institutional universalism from Rothstein (2005, 129), who defines it as an impartial, objective, and non-discriminatory behavior. Universalism in this sense is a *subjective perception of treatment* not an objective theoretical principles behind formal institutions. This perception of subjectivity does not equal perception of institutions that adjudicate in accordance with ones preference. Indeed, corrupt institutions would assure bureaucratic decision favorable to the briber's interests. As Rothstein puts it, "[i]t is not a matter of precisely equal treatment, but rather that *everyone is assured that his or her needs will be tested on equal terms with everyone else*" (2005, 133). In the short-term, the state's commitment to such universal institutions indicates the end of group-based preferential treatment that was likely present at the root of the conflict.

My theory poses that in the context of domestic violent conflict, societies' rivaling factions are likely to see such institutions as a clear signal of government's commitment to more egalitarian policies for at least three reasons. First in the short-term, promotion of institutions that are universally accessible is unlikely to generate mistrust, as all citizens regardless

Figure 3.1: Causal Mechanism
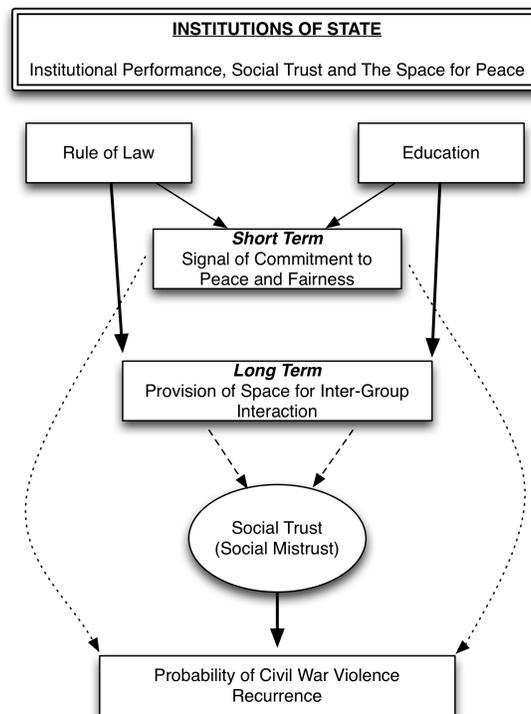
of particular identity have equal access to those inclusive institutional resources. Second, a major reason to distrust others in society is also removed, as institutional resources of state in context of such inclusive programs are not captured to advance interests and position of a particular faction, but instead are available to all. Finally in the long-term, institutions that include all citizens constitute fair forums for interaction across groups. Such interaction at a universal institutional level takes place in an environment where suspicion of identity-based discrimination, profiteering, and increasing relative power is significantly abated. Fair interaction reduces inter-group mistrust, is likely to assuage volatile domestic security dilemma, and over time generate cooperation, norms of reciprocity and aid in generation of social trust. Figure 3.1 illustrates the causal logic of this argument.

Indeed, it is instructive to consider the effects of inclusive and exclusive institutions of state. Crepaz & Damron (2009) in the context of highly developed nations demonstrate how universal institutions of the welfare state and education integrate societies, including ethnically diverse ones. Rothstein and Uslaner, using a broader sample, note that universal programs provide space where equality of opportunity for all groups promotes fairness and can result in more economically equitable, trusting societies. In other words, an exemplary universal institution utilizes resources for and is accessible to all citizens. Welfare safety nets of Scandinavian states or educational systems of most countries are examples of inclusive institutions.

On the other hand, selective institutional benefits afford protection to those who are able to furnish proof of their eligibility, introducing an element of bureaucratic discretion that may increase perception of injustice and preferential treatment (Kumlin & Rothstein 2005). In post-civil war states, access to needs-tested institution provides an arena for mutual accusation of preferential treatment. Where service is available only to a segment of the society that can be bureaucratically distinguished from the rest, suspicions of corruption and favoritism will emerge. Indeed, needs-tested welfare institutions are said to "establish hierarchies, accentuate differences, [and] highlight inequalities[...]" (Crepaz & Damron 2009,

446). By their very nature, such institutions separate society into groups. In post-Civil War states, those groups may actually be, or merely be perceived as, divided along the lines of recent conflict. Institutional benefits that can be allocated by clerks' decisions invite questions about justice, fairness and identity-based discrimination. Such actual, or perceived inequality is likely to contribute to reduced inter-group trust, impose limits on cooperation and effectively exacerbate domestic security dilemma.

However, it is rather impractical to speak of universal welfare programs in the context of the post-civil war states, where scarcity of resources often allows for only imperfect provision of even basic services. Some citizens are bound to receive less or no benefits where resources are scarce. I argue, however, that this sense of deprivation due to resource scarcity has different implications than the observation that the state is purposefully investing in exclusionary goods that benefit one side of ex-combatants more than other. *Dissatisfaction with institutional performance* in terms of their output is qualitatively different from *programmatic partiality*. While the former involves some sense of deprivation and leads to dissatisfaction, the latter exacerbates the security dilemma and can lead to renewed violence. In this sense, few citizens of low-income states expect the social benefits of Western European welfare states, however, institutions of universal education and basic healthcare are expected to be accessible to all, rather than some, especially if the privileged group can be equated with particular group of ex-combatants. In a rare individual-level analysis of rebel mobilization in the Niger River delta (Oyefusi 2008) notes that access to education reduces probability of an individual to join rebellion. In this sense, the more inclusive the institutions of education are, the less willing individuals are to join the rebellion.

It is crucial to note that the giving priority to inclusive institution is a conscious political choice in the post civil war environment. The goal is to reduce uncertainty of violence recurrence, and by investing in institutions of state that have strong universal values and are structured in simple, understandable rules, helps to avoid problems with subjective interpretation. Thus, promoting institutions such as universal education and basic healthcare send

important signals in the short-term, and in the long-term constitute forums for interaction of all citizens. Post-conflict states with polarized populations locked in a security dilemma may by investment in universal programs signal commitment to peace maintenance and inter-group fairness and provide a space for cross-group interaction under condition of impartial treatment reducing mistrust, increasing inter-group bridging and promoting social trust. Such *institutional effects* lessen acute security dilemma. The primary hypothesis emerges suggesting that:

Hypothesis 1:

The higher the level of universality or inclusivity of institutions, the lower the probability for recurrence of violence.

3.3 INSTITUTIONS OF ORDER

Nevertheless, not all institutions of state can be universal, and even universal institutions may be perceived as being cheated or taken advantage of by certain individuals or groups. Trust in such institutions and people who abuse those institutions will be undermined, and more importantly for present discussion such institutions can easily be interpreted as serving interests of particular faction in post civil war state while disadvantaging others. This leads to the second important characteristic of the post-civil war institutions that are capable of increasing social trust and promote peace perception of justice.

Rothstein & Stolle (2008, 446) suggest that the legal and administrative institutions of the government are trusted not due to ideological convergence with majority but of *"even-handedness" and "impartiality"*of their performance (emphasis added). The role of the police and judicial system is to capture and punish those who violate laws and abuse social relation-ships. (Rothstein 2005, 66) adds that apart from facilitating criminal-less social interaction, institutions have to "effectively penalize individuals who engage in opportunistic and treach-erous behavior," Behavior that in situation of domestic security dilemma can be interpreted as a prelude to renewed violence.

It is important to note that in post-conflict societies, the institutional resources are likely to be low and performance-deficient. However, as socio-psychological studies inform us, the end result of institutional interaction (redistribution, favorable judgment, etc.) is at least as important as the perception of fairness of the procedure that led to such outcome as so called procedural justice (Lind, Tyler & Huo 1997, Tyler & Lind 2005, Levi 1998, Rothstein 2005). The key thus is not objective measurement of law enforcement and judicial system performance, but rather prevalence of corrupt practices that systematically discriminate certain social groups.

Indeed, where corrupt practices are controlled, strength of institutions of order and their impartiality instill confidence in a fair regulation of social grievances. Social mistrust can be reduced in this environment as the abuses of power are addressed and motivations for renewed rebellion are reduced. Fair justice system is perceived as contributing to structuring credible societal interaction. Such a situation dispels the typical uncertainty about the unfair distribution and access to institutional resources allowing space for interaction or even cooperation between members of different groups. Those fair interactions help build social trust and increase chances for durable peace. The second major hypothesis emerges stating

Hypothesis 2:

The higher the level of identity-based legal discrimination, the higher the probability for recurrence of violence.

3.3.1 REGIME TYPE AND INSTITUTIONAL AGENCY

Finally, I turn to the question of agency in the institutional context. Specifically, the natural criticism of present framework suggests that one who is in majority controls state resources and is a *de facto* decision maker on their allocation. Thus, fairness or impartiality is questionable as allocation of resources reflects power distribution inside the state. Arend Lijphart suggests that the consociational governments will be more likely to provide distributional justice, especially in plural and divided societies (Lijphart 1969, Lijphart 1980, Lijphart 1997).

Indeed, a government representing all concerned parties with administrative veto powers is at least theoretically likely to prevent unequal distribution and favoritism. However, the theory here advanced does not require any specific institutional regime type. In fact, most centralized authoritarian regimes may be equally effective at reducing some social mistrust if only they decide to promote universal or inclusive programs.[2]. Universal institutions send similar signals and provide similar space or inter-group interaction regardless of type of regime or specific decision-making procedure about resource allocations or institutional priorities.

In sum, when universal programs such as education and healthcare are promoted, an inclusive institutional good is provided, preventing the possibility of cheating or group favoritism. In spheres where there are necessarily exclusive goods, the administrative fairness of institutions needs to be placed to assure that violators will be apprehended and punished. Such institutional solutions signal, in the short-term, and build, in the long-term, stable commitment to peace through increasing inter-group interaction and increasing social trust.

Social trust and institutional performance are causally related, however the clarity of causal arrow direction suffers from the self-reinforcing dynamic. It is commonly accepted and discussed in literature that social capital and economic, institutional or even educational performance are mutually reinforcing in the virtuous circle (Rothstein 2005, Putnam 2000). Indeed, in a foundational work, James Coleman (1988) argued for social capital's influence on educational attainment, while high levels of education were shown to associate with increased levels of social capital (Brehm and Rahm 1998). This virtuous circle in the empirical social studies presents less than virtuous case of endogeneity of variables. This study acknowledges this bidirectional relationship, however argues for starting point at institutional level. First for the theoretical reason, in a post-civil war state social trust is hardly available to build

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[2]In this sense, the regime type is predicted not to have effect on inclusionary institutions' ability to reduce social mistrust. However, it would not be surprising to observe that states with smaller *selectorates* are less likely to invest in inclusionary institutions that provide public goods needed for large *winning coalitions*, as opposed to the exclusive private good that is available to smaller *selectorates* (de Mesquita, Morrow, Siverson & Smith 1999)

from. Indeed, its deficit is the core of the problem in solving the "ultimate collective goods" problem of peace and security.

Second, and related from a practical standpoint to suggest that the path to prosperity in the aftermath of civil war is through education, which can be encouraged through increasing levels of social trust is impractical. Instead, it is well within the power of ex-belligerents to focus on institutions of state, such as education system, that can encourage cross-group interaction and aid in generation of social trust. For those reasons, this research "enters" virtual circle of social and human capital at the level of institutions of state.

Finally, as suggested by Uslaner (2002) social trust level is a very stable feature of society formed early in life and responsive only to collective experiences in society. While civil war is clearly a trust-breaking collective experience that can relatively quickly deliver its social damage, institutional influence on trust rebuilding is likely to take more time. It is thus hypothesized that the effects of inclusive institutions on peace endurance will be more pronounced in the longterm. In other words, the probability of violence recurrence will be reduced by inclusive institutions at a longer time horizon, while probably such effects will be less clear in the immediate aftermath of conflict. Therefore, the final hypothesis states *Hypothesis 3:*

The effects of inclusive institutions and institutions of order reducing the probability for recurrence of violence will be stronger in the longer term.

Specification of Variables and Methods of Analysis

This article attempts examination of the impact inclusiveness and fairness of the institutions of a post-civil violence state have on the probability of violence recurrence. In other words, it is an attempt to add some detail to the type of policies that can influence the chances for durable peace. Many previous analyses of civil war drew on the "universe" of cases between 1945 and 1999 (Fearon and Laitin 2003, Regan 2002, Doyle and Sambanis 2006)[1]. Present testing is narrowed by availability of main explanatory variables. As such, variables measuring inclusiveness of institutions and the post-war fairness of institutions of order and law are available starting with 1970 and still have numerous missing points across the data. However, my reconceptualization of violence recurrence results is a sample size conducive to logistical regression testing. A full list of recurring conflicts is included in the Appendix.

4.1 Measuring Response Variables

I measure my response variable at three time intervals to increase sensitivity of findings and different consequences in short and long-term on recurrence of violence. First, I construct two binomial variables measuring if a conflict has recurred five and ten years after the initial cessation of violence or negotiated settlement was recorded. If conflict returns within the specified time it is recorded as 1, otherwise 0. My main sample comes from the Uppsala University Armed Conflict Dataset and follows its inclusion criteria (Gleditsch 2002).[2] These data uses a low annual casualty threshold (25) for inclusion as a conflict episode. Such

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[1]Doyle and Sambanis extend this sample to include early 2000s.

[2]Absence of 25 battle related deaths following the conflict episode is the starting point of every observation (Gleditsch 2002)

measurement allows me to account for civil conflicts that were active but never reached the literature standard of 1000 battle deaths per annum.[3] The argument of my theory implies that those societies that do not escalate are able to withstand pressure of low level violence, perhaps factions are able to manage it through institutional arrangements, but are equally likely to revert to violence, be it of low or high intensity if a group previously involved in violence will feel threatened. To differentiate between civil wars and domestic armed conflicts I include two dummy variables indicating if conflict has reached 400 and 1000 annual battle deaths respectively. Those variables allow me to asses whether the effects of my main explanatory variables differ for more violent conflicts than my inclusion criteria.

Furthermore, Walter (2004) supports this claim with findings suggesting that conditions affecting the probability of the same war recurring and a new war starting in the same country seem to hinge on the same causal variables. In other words, there is no significant difference in the factors that determine or distinguish between civil war onset or recurrence. This is consistent with my approach and indeed with commonsensical interpretations of motivations for fighting, which in rational choice terminology means that the utility of fight has to be prized higher than that of peace.

However, since my theory argues that cessation of hostilities for a period of time creates space and opportunity for peace and my measure depends on conflict being inactive for a period of one year, my data would miss all observations of attempted peace settlement that were signed but reverted to violence within one year. In other words, conflicts that ended with agreement but did not survive even a minimum (one year) test of time would be excluded from the analysis. Therefore, I supplement cases selection with cases of signed settlements that ended conflict but did not result in at least one year of peace. I use Hartzell and Hoddie's list of civil war settlements to supplement observations in my response variable (2007, 6).

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[3]most notable works with different inclusion criteria are Sambanis (2000, 2004) who codes civil war at 500 and Patrick Regan (2002) at 400 battle related deaths

Finally, states which experienced multiple conflicts at the same time are coded as having multiple conflicts with variable *ncivilwar*. Cessation of hostilities in one conflict does not automatically mean the end of conflict if other conflicts remain active. For instance, Ethiopia which since the 1960s has been experiencing civil violence between a myriad of factions and did not have any power-sharing agreement signed, had 16 conflict episode ends recorded in PRIO data. However, since for many years in which conflict episodes ended there was another conflict episode ongoing, the only two observations included are for years 1992 and 1996 as there was no civil war violence recorded for years 1993 and 1997. Such coding is essential to on the one hand not omitting distinct opportunities states have for permanent termination of violence (one year of peace) and on the other hand not inflating observations of recurrence in states with multiple ongoing civil conflicts, where space for resolution of root cause of conflict maybe overstated.

However, renewal of violence in any one conflict makes previous conflict be coded as recurring as long as the distance between conflicts does not exceed 1000 miles (1600 kilometers). This is present for two reasons. First, conflicts in geographically large states can be considered independent or even as having little influence on other parts of a state. For instance, the Russian parliamentary coalition and Boris Yeltzin's coup had little influence on the Armenian Independence struggle and conflicts in the Caucasus, and were therefore treated independently. In contrast, conflicts in Chechnya (1994-1996) and bordering Dagestan (1999)[4] were both Caucasus region conflicts with aim at autonomy and/or independence of Muslim minorities from Russian rule. Therefore, the 1999 Buinaksk conflict is considered a recurrence of 1996 Chechen struggle. This distinction is crucial for the main argument of this paper as the effects of the inclusive institutions of state should be felt across wider regions rather than be concentrated to single group identity or grievance area. Inclusive institutions, in other words should reduce space for violence equally well in Chechnya as in neighboring Dagestan. Nevertheless, I am hesitant to apply the same logic to the Armenian Independence

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[4]Wahhabi movement of the Buinaksk district

Conflict of 1991 and Moscow Parliamentary Crisis of 1993. This distinction adds only six observations to my primary analysis and excluding those observations does not substantively affect the results of the statistical estimation.

The reasoning here is rather simple. First, the effect of institutions in the post-civil war state should be felt across communities whether they were directly involved in violence or not. In fact, treatment of conflicts as independent events separates what in my argument is a crucial common motivation for violence, artificially inflating observations for, what is at essence, a common problem. If institutions of state are to be effective in reducing the space for violence in the short-term, they may do so by exclusive agreement with one of the groups in a society. However, such special treatment may indeed be a reason for another previously inactive group to rebel and continue violence within a state. Such reasoning is exceedingly difficult to document but the process of wars in Chad, where rebel and government forces were in constant rotation, recruiting the same disenfranchised groups for government or rebellion support, depending on which side was currently occupied by an actor seems like a prime example of such a dynamic.[5]

Conflict Recurring	Recurs	Does Not Recur	Total
Recur within 2 years	53 (23%)	173 (77%)	226
Recur within 5 years	100 (44%)	126 (56%)	226
Recur within 10 years	123 (54%)	103 (46%)	226
Used in Analysis			
Recur within 2 years	22 (24%)	70 (76%)	92
Recur within 5 years	45 (49%)	47 (51%)	92
Recur within 10 years	53 (58%)	39 (42%)	92

Table 4.1: Violence Recurrence 2, 5 and 10 Year Threshold

Following such coding of the response variable results in 226 observations of civil conflict episodes between 1965 and 2008, with 100 (44%) coded as recurrences and 126 (62.08%) as non-recurrences after five years since conflict's end. In this sense, there were 226 opportunities

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[5] for a brief description see Brogan (1998, 40-44); for detailed account of this complex and enduring conflict see Nolutshungu, Sam C. 1996. *Limits of Anarchy: Intervention and State Formation in Chad* University Press of Virginia Charlottesville, VA.

to end violence either thanks to at least 12 months cessation of violence or signed settlement. Of those slightly more than 45% resulted in peace and over 54% reverted to violence within 10 years. Time span of the analysis and included cases will differ across models due to frequent missing data and resultant list-wise deletion. Indeed my base model uses only 92 observations, however, distribution of recurrences and non-recurrences is consistent for the full and this more limited sample. Table 4.1 reports details of this distribution.

Perhaps the most interesting observation illustrated by this table relates a nearly 50% increase in recurrences between two- and five-year threshold. Clearly, conditions for recurrence are ripe even if a state survives two years without resorting to violence. Therefore it is crucial to measure recurrence at different time points and asses relative performance of variables in the short and long-term.

4.2 Measuring the Explanatory Variables

My first main explanatory variable measuring universality or inclusiveness of institutions uses as proxy educational system of a state. The choice of education as a measure of commitment to universality of institutions is predicated on the cross-sectional comparability and on the availability of data. Social capital literature often uses indicators such as welfare state entitlements to demonstrate that isolation from market forces[6] and the absence of competition for institutional benefits produces a environment conducive to development of social trust. However, in the sample of civil war states, central government can usually provide only limited services and one of the most basic and relatively cross-sectionally comparable is education system. Other possible measures of a government's commitment to peace may be investment in infrastructure projects designed to generate income and improve quality of life for all. However, it is unpredictable how the investment will be spatially distributed and who will profit from the allocation of resources.[7] In other words, investment may be concentrated

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[6]decommodification see Esping-Andersen (1990)

[7]A similar argument can be made about other measures of quality of life such as infant mortality or life expectancy used in other studies (Walter 2004). See Conclusion for more detailed discussion

to the benefit of one group while excluding other ones from the benefits. Such a measure would thus turn out to be acting in direct opposition to the argument here advanced. On the other hand, the education system of a state, while it certainly can benefit a particular identity group over others makes it at least partially possible to account for such exclusionary practices. The level of investment into educational systems as a percentage of GDP comes to mind as a standard econometric indicator of commitment to the educational system. It is at the core an indication of the budgetary consideration the school system receives, it is not necessarily an adequate measure of the benefit of inclusiveness students as individuals and society at large are receiving. For example, country A can spend 50% more than country B on education, but this may be due to the fact that there are severe infrastructural needs that require this additional expense, and not a reflection of education's role in the post civil war state. Moreover, much like with infrastructure projects, money invested may be concentrated to the benefit of a particular group, resulting in institution that is exclusive rather than inclusive. Spending therefore may not be a proper measure of institutional universality, which is at the core of my argument.

I prefer the measures of total enrollment (relative to population) and student life expectancy (SLE) in educational system from primary to tertiary levels. Total enrollment gets closer to the measure of universal access as opposed to exclusive benefit of education, as it inherently accounts for participation in the system versus total of population. School life expectancy measures average time of exposure to this inclusive institution accounting for the base enrollment for year of observation. Unlike measuring allocation of funds to the school system, which even if high may retain few students and produce none of the desired social effects, SLE defined as "the total number of years of schooling which a child of a certain age can expect to receive in the future" allows for some control over how this benefit is distributed (UNESCO 2010). [8]

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[8]full technical definition reads "School life expectancy is defined as the total number of years of schooling which a child of a certain age can expect to receive in the future, assuming that the probability of his or her being enrolled in school at any particular age is equal to the current enrollment ratio for that age."

Both of those measures are better suited than education expenditure, to capture the educational role as a space for fair interaction where socialization to people different from us can reduce mistrust, increase reciprocity and cross-group cooperation. Educational spending, total enrollment and SLE are all included in analysis and the data are drawn from UNESCO Institute for Statistics (UNESCO 2010). Population data are obtained from Penn World Tables (Heston A. & Aten 2009).

An obvious criticism of this measure is that schools controlled by the dominant group may be advancing messages of hate and discrimination as opposed to civic virtues. However, such messages are likely to be reflected in the total enrollment where parents of a discriminated and vilified minority are unlikely to encourage school attendance of their children. In other words, school systems that present such messages of hate and discrimination will discourage at least some of the school age population from attending, resulting in lower enrollment and SLE scores.

Unfortunately UNESCO systematically reports those figures in five year increments, and measure for every country-year is not available leaving four year gaps between observations. I fill four years prior to available measurement year with value for that year. As such value for 1975 appears for all observations between 1971 and 1975. An alternative fill is provided by placing value of the variable in a given year T for two following and preceding years (i.e. T+1, T+2 and T-1, T-2). For instance, the value for 1985 is filled for 1983-1984 and 1986-1987 while values for 1988 and 1989 are filled by value for year 1990. There is no substantive difference between the correlation of values using both methods Appendix B reports details.

The efficacy and fairness of institutions of order is a complex concept to measure but I estimate it for this analysis through the measure of practice of political imprisonment. The prevalence of political imprisonment, I argue, is a good proxy for estimating governments' commitment to the rule of law, where all citizens regardless of their creed or identity are able to express their views without fear of government crackdown on opposition. Governments exercising political imprisonment freely are unlikely to be perceived as fairly applying

the letter of the law to all citizens. This variable is found through Human Rights Data by Cingranelli and Richards (1999). This variable answers questions "Are there any people imprisoned because of their political, religious, or other beliefs?" and contains three categories: "yes and many (0), yes, but few (1), none (2)" (Teorell et al 2009: 32). Tables 4.2 and 4.3 report summary statistics for all right hand variables used in the analyses.

Variable	Mean	Std. Dev.	Min.	Max.	N
Democracy Score	4.39	2.76	0.25	10	208
Ethnic Fractionalization	0.606	0.229	0.039	1	220
Real GDP/capita	7.681	0.931	5.139	10.494	186
Income Equality	0.067	0.046	0.007	0.385	122
School Life Exectancy	6.629	4.135	0.3	17.1	189
School enrollment/ Population	0.16	0.067	0.026	0.301	176
Education Expenditure%GDP	4.261	5.152	0.4	49.5	181
Political Imprisonments	0.671	0.779	0	2	152

Table 4.2: Summary Statistics: Continuous Variables

4.2.1 Control Variables

This study uses a standard set of variables that were found to be significant in predicting the recurrence of violence as outlined in the literature review section. In the analysis included in the body of this paper I only utilize variables that can theoretically be connected to the main explanatory and response variable. Fully specified models can be found in the Appendix. Tables 4.2 and 4.3 show descriptive statistics of included variables. As such, variables controlling for the post civil conflict level of development, regime type, measure of income equality, and whether war ended in a power-sharing agreement are included as controls in the base model.

To control for the political regime type, I measure the democratization level of a state. The variable is taken from the Freedom House dataset of imputed *polity2* score ranging from 0 least to 10 most democratic. An important set of arguments suggests that the presence of power-sharing arrangements is crucial for peace survival (Fortna 2004, Harzel and Hoddie 2003, 2007). I include Hartzel and Hoddie's index measure counting presence of political,

territorial, military and economic power-sharing provisions. Necessarily this variable ranges from 0 - no power sharing to 4- most comprehensive arrangement (2007: 46 & Appendix).

An important set of variables accounts for the economic explanations for the civil war and its recurrence. Indeed, economic growth and income per capita were all found to be instrumental as both aggregate and individual predictors of civil conflict (Collier et al 2003; Fearon and Laitin 2003; Walter 2004). I include measures of real gross domestic product (*GDP per Capita*) per capita and GDP growth, both drawn from Penn World Tables version 6.3 (Heston A. & Aten 2009). In this sense, country relative level of development and wealth is being assessed providing platform and control for different post civil war starting points across the sample.

Finally, important insight into the social capital in societies suggests that the higher levels of economic inequality translate into lower levels of social trust (Uslaner 2002). I measure inequality through *estimated household income equality* (EHIE) data drawn from the University of Texas Inequality Project dataset (Galbraith 2008). Unlike GINI coefficient, EHIE is available relatively consistently on annual basis and is therefore more sensitive to changes over time or due to significant collective events such as war or revolution (Galbraith 2007).[9]

Other control variables important for fully specified, predictive model include characteristics of previous war and ethnic diversity of the post-civil war state.[10] Those factors are briefly discussed below and included in the model reported in Appendix. First, measures pertaining to the identity variables measuring ethnic, religious and linguistic composition of the post civil war state are often considered important in predicting civil violence. Fearon and Laitin's (2003) analysis of ethnic fractionalization[11] is included as sort of "industry standard." Some findings indicate that ethnic diversity has quadratic relationship with probability of conflict

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[9]presentation on this website explains use of data and Theils T statistic used for calculation http://utip.gov.utexas.edu/data.html

[10]Fully specified predictive model is presented in Appendix.

[11]Fearon and Laitin (2003) measures the probability that two randomly selected individuals would belong to different ethnic group

(Cederman & Girardin 2007, Reynal-Querol 2002). As such, states with highly diverse societies and those nearly completely ethnically heterogenous enjoy more stability, as factions in such states have lower chance of mounting enough force to challenge the central authority of coalition of other groups or power of dominant group. In the Appendix, I therefore include squared measure of ethnic fractionalization to account for this "inverse U" distribution. As an alternative to those measures, I consider the ethnic fractionalization measure provided by Alesina and colleagues (Alesina, Devleeschauwer, Easterly, Kurlat & Wacziarg 2003), however, that variable does not affect the results of the estimation and is therefore not reported. Data was downloaded from QoG website (Teorell et al 2003).

Variable	Mean	Min.	Max.	N
Military Victory	0.093	0	1	226
Territorial War	0.398	0	1	221
Major War (Regan 2000)	0.595	0	1	220
Partition	0.041	0	1	221
Political Imprisonment	0.671	0	2	152

Table 4.3: Summary Statistics: Categorical Variables

Another set of variables measures physical characteristics of the past war. I include cumulative value of casualties that were suffered by both parties (Gleditsch et al 2002) and as alternative I code a dummy variable indicating whether a state experienced at least 400 (Regan 2002) battle deaths due to civil violence. To account for the conflict outcome this study uses dummy variable measuring whether conflict ended in decisive military victory on one of the sides. This measure is drawn from three recent works including Gent (2008), Cunningham, Gleditsch et al. (2009) and Hartzell & Hoddie (2007), all studying civil war and its recurrence. Resulting variables are coded as 1 if conflict resulted in government or rebel victory respectively and 0 if otherwise.

Finally, I use a dummy variable indicating whether a state is a post-partition state at the end of the conflict episode. Partitions are "rare events", therefore to maximize the list of full
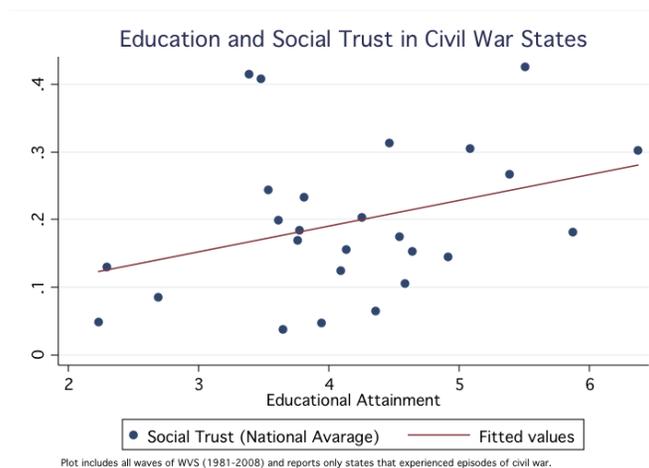
r=0.25 (p=.002)

Figure 4.1: Education and Trust, World Values Surveys 2008

partitions, I use data prepared by Tir (2005) and Johnson (2008) including only instances of complete partitions. [12].

4.3 ANALYSIS

Before proceeding with the main analysis, it is crucial to address the causal path of the argument. First, while it is not difficult to accept the proposition that social trust is low in post-civil war societies and that a deficit limits cooperation, restricts reciprocity and informs domestic security dilemma, it is perhaps more controversial to suggest that states' policies promoting inclusive and fair institutions can result in decreased social mistrust and consequently increased chances for durable peace. However, a body of research exists linking inclusive institutions such as education system and welfare safety nets to more trusting societies. This research considers cases that have experienced domestic violence and are therefore presumed to have certain level of social trust deficit (mistrust).

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[12]for details see Johnson (2009)

Indeed, increased levels of average national education attainment have been associated with social capital and empirically demonstrated as one of the strongest predictors of social trust since the inception of the literature (Brehm and Rahn 1997, Rothstein and Uslaner 2005: 47, Uslaner 2002). Robert Putnam's *Bowling Alone* argument rests significantly on the assertion that social capital, and social trust, decline in the U.S. especially when controlling for increasing education attainment, which trust is correlated with (1995:73). Indeed, Rothstein and Uslaner clearly argue that promoting educational universality "promises longterm opportunities for greater equality of results as higher education opens up opportunities for economic advancement" (2005:47). In this sense, education is in the long-term an important predictor of equal opportunities, that introduces more level playing field, and as such promotes social trust.[13] It is important to note that Rothstein and Uslaner's (2005) sample included 42 to 63 countries with diverse economic and political situations ranging from Pakistan and Brazil to Scandinavian states. However, is the same true for a sample used in the present study? Utilizing World Values Survey ranging from 1981 to 2008, I plot mean national levels of trust with mean national levels of educational attainment (years of education) for states which experienced civil violence. Results are represented in Figure 4.2. A clear relationship exists between the education attainment and social trust as they correlate at 0.25 (p=.002). Of course, no definitive causal conclusions can be drawn from this illustrative association, however the benefits of more, and more widespread, education on social trust are visible even among states who experienced civil war violence.

The relationship between trust and civil war violence is more difficult to depict. The very consequence of the civil war is destruction of infrastructure and disruption of civil life and institutions. As such, very little reliable data is available for civil war states, therefore no strictly controlled sequential test can be conducted. However, when taken out of the time

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[13]Skeptics may be quick to point out that education is simply a way for motivated individuals and groups to pull themselves up by their bootstraps advance economically, reducing incentives for violence. Indeed, the argument advanced here does not question the economic advantage springing from inclusive institutions of education, merely I note that "providing bootstraps" for all citizens is an important trust building function in post violence states

r=-0.412 (p=.002)
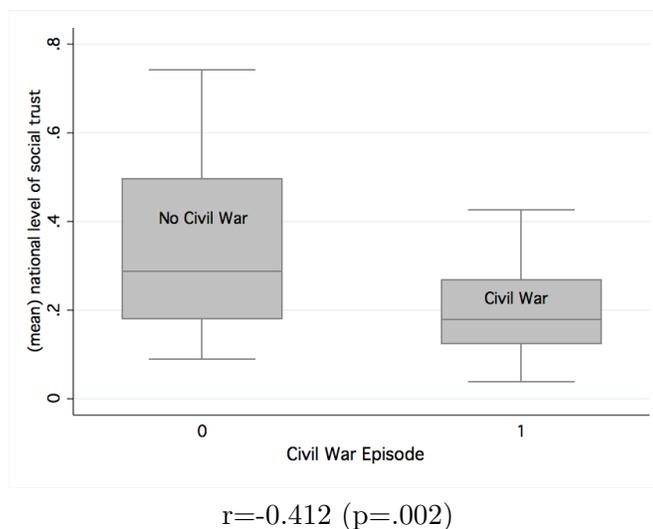
Figure 4.2: Trust in Civil War States

context, states that experienced or are about to experience civil war tend to show low levels of social trust. In fact, my main sample contains states that experienced civil war episodes and have a potential for recurrence. Figure 5.2 depicts this relationship.

While this correlation should be treated carefully, it is instructive to see the relationship. This illustration is not to be interpreted in any substantive way beyond depicting, perhaps not surprising, the negative relationship social trust has on the probability of civil violence.

Since trust is important in creating a cooperative and reciprocal environment, a natural question is how it can be promoted in the interest of inter-group integration and durable peace in the aftermath of civil violence. A natural difficulty is presented by lack of reliable data measuring trust in states that experienced conflict. However, we can measure the institutions and institutional performance that were found in literature to aid the generation of social trust (Rothstein & Stolle 2003, Rothstein & Uslaner 2005, Rothstein 2005). The following section does just that, as I attempt an empirical test of the influence that social

trust generating institutions have on the probability of fighting recurrence in post domestic violence states.

CHAPTER 5

RESULTS AND DISCUSSION

Does universality and fairness of state's institutions affect chances for durable peace? Several, models are tested and presented in the body of the paper as well as in the Appendix. Tables 5.1, 5.2, and 5.3 (below) show the results of the logistic regressions for two, five and ten year recurrence threshold respectively. The sample contains multiple observations for certain states suggesting possible country-specific effects (Green 2001). I therefore cluster standard errors by country in all estimations.

The data are organized for logistical analysis measuring war recurrence within two, five and ten years respectively. Explanatory variables at two year recurrence threshold are measured at one year $(T+1)$ after the termination of conflict. For conflict recurrence measured at five (5) and 10 year thresholds same variables are measured two years $(T+2)$ after termination of hostilities. This allows me to capture institutional performance in the after math of the civil violence, at the same time allowing for a reasonable temporal space for implementation of institutional policies. In this sense repressiveness of institutions of order practicing political arrests is not direct response to impending rebellion, but rather conscious policy output leading to re-ignition of violence.

Models 1, 2 and 3 test hypotheses about inclusive institutions (Hypothesis 1) using alternative measures of *universality of education*, while models 4, 5 and 6 add variable *political imprisonment* measuring fairness of institutions of order (Hypothesis 2). Finally, I use *prchange* command from *SPOST* software package for STATA to generate predicted probability scores for ease of interpretation. Those results are reported in the text. Table 6.1 in the Appendix reports findings of the most interesting models for each time period.

Two broad conclusions are immediately apparent from an even cursory overview of the data analysis. First, the institutional fairness and inclusiveness provide value added to the current state of our knowledge, suggesting that such institutional priorities in the post civil violence environment can reduce chances for recurring conflict. Second, the import of the individual factors differs depending on the time threshold at which recurrence is measured. This is a nontrivial implication as it potentially suggests which priorities need to be addressed in the short-term and which factors assure longevity of peace and should be pursued as long-term strategies. As such, institutions of order that do not abuse power in a discriminatory way are significant across all models at all three time thresholds providing strong support for a second hypothesis of this analysis (Hypothesis 2). This finding suggests that in the aftermath of conflict, while development level and regime type are important factors in shaping future of peace, rule of non-discriminatory treatment and alternatively fair institutional performance reduces security dilemma increasing chances for peace. Such a relationship seems logical considering deep-seated mistrust of post-conflict societies.

Further, inclusive institutions, as predicted by the third hypothesis (Hypothesis 3) are a significant factor, but only at a 10 year threshold where their function of provision of space for fair interaction produces socialization effects, reducing probability of violence recurrence. In this sense, the first hypothesis (Hypothesis 1) of this research is partially supported with the qualification of time it takes to see benefits of inclusive institutional arrangement on durability of peace. As explained in literature, in the short-term, inclusive institutions are said to produce a signal of commitment and an alternative to mobilization and fighting. While this assertion did not find support in the present study, a strong effect of the fair institutions of order may be more important and stronger in the short term than the effect of prioritizing educational institutions. In other words, other types of universal institutions may be stronger signals of commitment to peace. However, as expected in the longer term, universality of schools (*enrollment*) is related to the probability for the renewal of violence. This apparent relationship is consistent with social capital literature findings (Uslaner 2002,

Rothstein and Uslaner 2005, Stolle 2006), and conjectures from civil war literature (Collier and Hoefler 2002, Collier et al 2003).

Finally, it becomes apparent that economic equality is a major factor increasing chances for durable peace. Inequality is of course another measure of uneven power distribution and may be perceived by individuals and groups in a society as granting systematic benefit to one faction in society over others. Further, economic power can quite easily be translated into military advantage in case of conflict recurrence, and as such constitutes an important consideration for societies steeped in deep mistrust and existing under domestic security dilemma. Following is a more detailed discussion of institutional effects on violence recurrence at each of the respective time thresholds.

5.1 Violence Recurrence within 2 Years

Within tested sample, 24% of civil violence episodes recur within two years time. In Table 5.1, I report a test of the log likelihood of violence recurrence. While Models 1 and 2 seem not to explain much of the recurrence outcome, Model 3 demonstrates that GDP per capita is significant and its discrete influence on the probability of war recurrence two years after the conflict suggests that one standard deviation increase (or about $5000) decreases predicted probability of violence recurrence by 28% holding all other variables at their mean (continuous) or mode (binary). Same model shows that a standard deviation change in the educational expenditure as a percentage of GDP (or increase of 6.11%) reduces predicted probability of violence recurrence by just over 15%.

However, effective the changes of $5000 in average income or commitment of additional 6 percent of GDP to education system may not be the most useful finding in actual policy implementation. Increasing GDP per capita from $3500 to over nine thousand surmounts to advancing from lower middle income to upper middle income country and even with 10% annual growth is likely to take nearly a decade. Though post civil war states tend to grow faster in a "catch up period" after the war (Collier 2003), such growth is hardly

realistically achievable within five year period in which violence recurrence increases to 49% for all conflicts.

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Explanatory Var						
Inclusiveness						
School Life Exp$_a$	-.056 (.105)	–	–	-.189 (.157)	–	–
Total Enrolment$_a$	–	-.990 (5.528)	–	–	-9.763 (7.862)	-
Edu Expend$_a$	–	–	-.077 (.043)	–	–	-.020 (.322)
Inst of Order						
Pol Imprison$_a$	–	–	–	-1.448 (.558)	-1.664 (.688)	-1.693 (.542)
Control Var						
Power-sharing	-.113 (.390)	-.212 (.384)	-.070 (.317)	.064 (.292)	.128 (.289)	.106 (.259)
GDP per Capita$_a$	-.0001 (.0001)	-.0002 (.0001)	-.0002 (.00006)	.00004 (.0002)	-.0001 (.0001)	-.0002 (.0001)
Democracy$_a$	-.076 (.088)	.053 (.084)	-.028 (.068)	.053 (.117)	.059 (.133)	-.057 (.145)
Income Equal$_a$	-12.839 (10.065)	-12.655 (10.493)	-15.556 (9.558)	-24.957 (11.589)	-26.399 (11.112)	-28.906 (12.579)
N	89	92	90	68	69	69
Log-likelihood	-43.906	-44.759	-45.359	-30.572	-30.533	-31.609
$\chi^2_{(5/6)}$	8.15	7.46	19.01	20.14	17.58	31.14

Logistic regression coefficients reported, standards errors are in parentheses.
variable$_a$ = one year lead (T+1)

Table 5.1: Violence Recurrence within 2 Years

Moving to models that include measure of fairness of institutions of order, change from very discriminatory system where political arrests are very common (0) to system with few such arrests (1) decreases predicted probability of conflict recurring by 31%, while difference between highly discriminatory system and one with no political arrests (2) produces a 41% decrease of that probability within two years of cessation of hostilities. Those results are illustrated in Figure 5.1 based on Model 5 from Table 5.1.
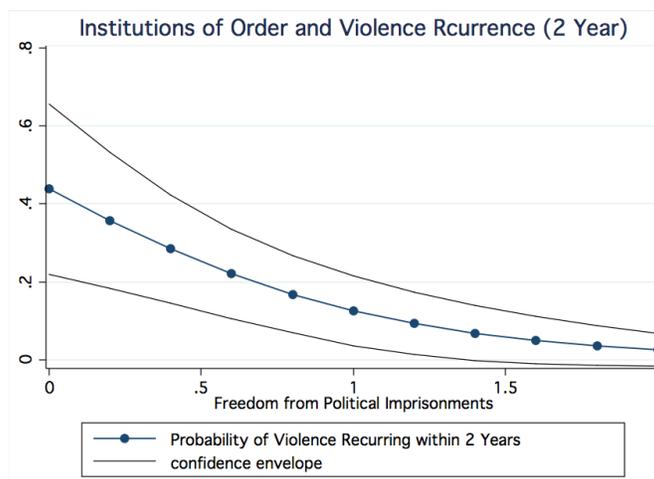
Figure 5.1: Institutions of Order and Violence Recurrence (2 Years)

Another crucial finding illustrates importance of equality in polarized societies. Change in the household income equality produces quite strong reduction in predicted probability of violence recurrence within two years, but is only significant in models that include *political imprisonment* suggesting important conditioning of fairness of the law and economic equality. Nonetheless, predicted probability of recurrence decreases by 52% with one standard deviation change in equality. This influence is depicted in Figure 5.2. It is important to note that in the lower level of income equality confidence "envelope" is rather wide, probably due to lower number of observations with very low equality scores, therefore predictions are "less certain" while the relationship is strong and confidence of estimates progressively tighter at the higher levels of income equality.

5.2 Violence Recurrence within 5 Years

Following the analysis of recurrence within two years, I regress the recurrence dummy within five years on the same set of the independent variables. This measurement of the response variable changes distribution of non-recurrences and recurrences increasing number of the
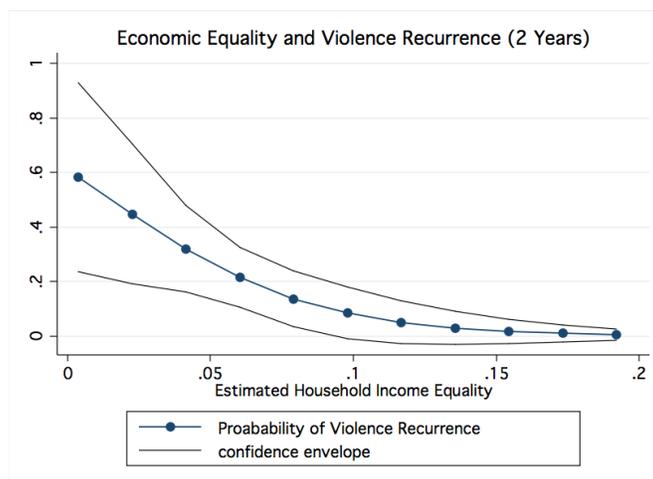
Figure 5.2: Economic Equality and Violence Recurrence (2 Years)

latter by about 50% (see Table 4.1). Clearly risk of violence recurring is not over after a state survives two years without violence. Moreover, we may expect that certain different conditions and factors will be important in preservation of peace at this longer time horizon.

In fact, the presence of any power-sharing arrangement (Figure 5.4), not significant at a 2 year threshold, increases the predicted probability of violence recurring by 6% while power-sharing involving all four discussed areas increases that probability of violence returning by 12%. Similarly, moving the regime type from autocracy toward partial democracy (low score of 1 to 3.8) increases predicted probability of violence returning by 29%. However, moving from relatively high democracy score of 7 to 9.8 increases that probability by only 10%.

First, those results need to be contextualized within the sample of analyzed states, which constitutes significant limitation of this study. Clearly, democracy is not a cause of violence, however weak institutions of state may not be best suited for managing post-conflict security. As was mentioned before, partial democracies have less institutional capacity to manage conflict and are therefore often more prone to violence (Snyder 2000). Second, power-sharing arrangements in the presence of discriminating and non-inclusive institutions allow parties to

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Explanatory Var						
Inclusiveness						
School Life Exp$_a$	-.117 (.089)	-	-	-.093 (.099)	-	-
Total Enroll$_a$	-	-5.735 (4.399)	-	-	-10.046 (6.277)	
Edu Expend$_a$	-	-	-.027 (.017)	-	-	.152 (.260)
Inst of Order						
Pol Imprison$_a$	-	-	-	-3.359 (.880)	-3.813 (.943)	-3.591 (.872)
Control Var						
Power-sharing	.107 (.296)	-.053 (.251)	-.041 (.279)	.791 (.283)	.645 (.322)	. 607 (.293)
GDP per Capita$_a$	-.0001 (.00009)	-.0002 (.00007)	-.0003 (.00008)	.00006 (.00015)	-.00006 (.00011)	-.00003 (.00013)
Democracy$_a$	-.054 (.095)	.044 (.101)	-.016 (.106)	.256 (.142)	.264 (.139)	.240 (.151)
Income Equal$_a$	-13.569 (6.417)	-11.373 (5.621)	-14.242 (7.202)	-39.360 (12.617)	-41.145 (12.061)	-45.936 (14.365)
N	92	95	90	68	70	71
Log-likelihood	-56.388	-56.207	-59.540	-25.525	-26.984	-28.242
$\chi^2_{(10/11)}$	16.41	9.25	68.80	46.21	29.27	22.81

Logistic regression coefficients reported, standards errors are in parentheses.
variable$_a$ = two year lead (T+2)

Table 5.2: Violence Recurrence within 5 Years

observe corss-group inequalities more vividly, informing their security dilemma and resulting in exacerbation of trust and peace. Beyond that visual inspection of this relationship (Figure 5.3) demonstrates rather wide confidence margins for states with higher levels of power-sharing institutionalization, making definitive conclusions much more uncertain.[1]

[1]low number of observations have highly institutionalized power-sharing
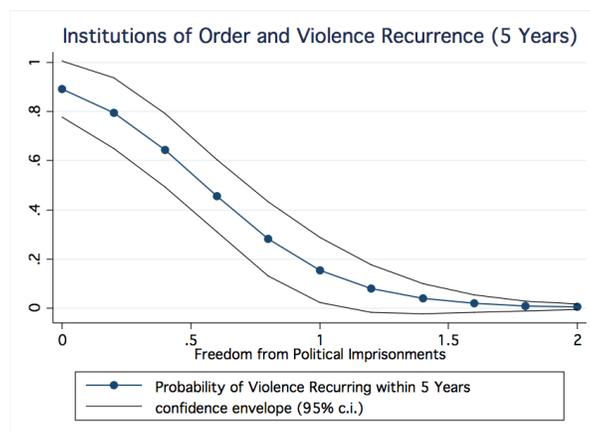
Figure 5.3: Institutions of Order and Violence Recurrence (5 Years)

Another variable that is consistently related to the probability of war recurrence is income inequality. As predicted, lower levels of household income equality are associated with higher probability of violence. Indeed, economic equality, as in the 2 year recurrence test, has a negative effect where one standard deviation increase in equality score reduces the probability of recurrence by 29% (Figure 5.5). As mentioned earlier, economic equality is a consensus factor in investigation of social trust (Uslaner 2002). Lack of equality creates disparate condition for people and produces communities that are not connected as people with very different incomes participate in different activities and have limited space for interaction, increasing suspicion of more powerful factions in society and exacerbating domestic security dilemma.

All three measures of inclusiveness of the education system (Hypothesis 1) point to the negative relationship, but do not reach statistical significance. For reasons discussed earlier, this is not entirely unexpected considering time needed for inclusive institutions to "re-socialize" people from different groups to reduce mistrust and probability of violence recurring.[2] It seems that at a five year interval, the recurrence of civil war is not strongly conditioned by universality of educational enrollment and ability of educational institutions

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[2]see page 21 for discussion of measure of educational spending
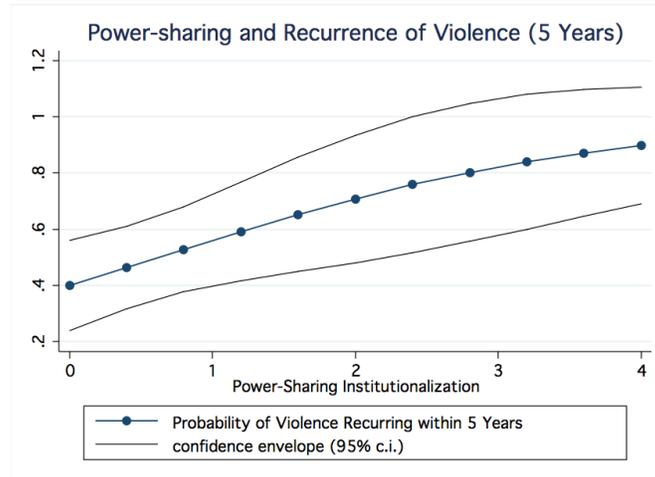
Figure 5.4: Power-Sharing and Violence Recurrence (5 Years)

to offer long term opportunity to attend schools. As explained in literature, in the short-term, inclusive institutions are said to produce a signal of commitment and alternative to mobilization and fighting. In the longer term, schools can offer a type of a socialization forum for inter-group interaction resulting in the reduction of social mistrust, perhaps producing norms of reciprocity, all of which translate into assuaging the security dilemma and consequently reducing the probability for the renewal of violence. The only inclusive institution's variable that is relatively close to statistical significance is total school enrollment (*enrollment* with p value of 0.11). Though interpretation may not be interesting, a standard deviation change in enrollment (increasing it by 5%) reduces probability of violence recurring by about 10%.

The second major hypothesis of this study finds very strong support (Models 4, 5 and 6), suggesting that oppressive and discriminating institutions of order do indeed produce increased risk of violence recurrence. This effect is relatively strong and in accord with the proposed theory suggesting that systematic preferential treatment of one group combined with legal prosecution of opposition in a post civil violence state can result in decreased social trust among the members of privileged and oppressed groups (Figure 5.3). Given

history of violence between ex-belligerents, such lack of fairness is bound to translate into a more acute security dilemma and therefore increases the probability of violence recurrence. Indeed, fairness of the institutions of order reduces the probability of violence recurring by 74% (Hypothesis 2) when moving from discriminating to relatively fair, and 89% when changing from a discriminating to very fair society. Figure 5.4 illustrates this relationship.
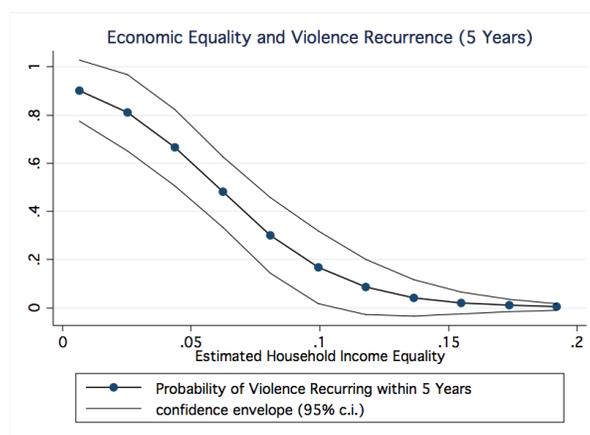
Figure 5.5: Economic Equality and Violence Recurrence (5 Years)

It is interesting to note that the significant effect of educational universality variables disappears with the introduction of institution of order measure. This suggests that relatively fair institutions of state that are concerned with law, order and security are more scrutinized and influence space for reduction of mistrust, more effectively reducing the probability of war recurrence. Also, including fairness of institutions of order makes power-sharing arrangements and democracy become significant however with positive signs opposite of the expected relationship. This puzzling result can be explained by two findings previously advanced in the literature. First, democracy tends not to have a linear relationship with the probability of the incidence of violence. Indeed, an inverse "U" is suggested as the proper modeling of democracy. In this sense, states included in this sample have a democracy score mean over 5 and 40% falling between 3.6 and 7.5 threshold of democracy score out of 10, placing them in the middle category of semi-democracies (anocracies) which are associated with an increased

probability of violence versus their more authoritarian and fully democratic counterparts (Hegre 2000, Hegre 2004, Mousseau 2001, Snyder 2000).

5.3 Violence Recurrence within 10 Years

When measuring violence recurrence at a 10 year interval the number of positive observations increases by roughly 22%. This observation serves to suggest that states experiencing domestic violence face a long and tenuous period of transition to durable peace. However, surviving without violence 10 years after the termination of fighting should suggest that certain positive developments took place where the security dilemma was managed to avoid deadly confrontation. Which of the factors in the present analysis can account for the difference between states successfully averting violence and those reverting to conflict in this "long-time horizon?"
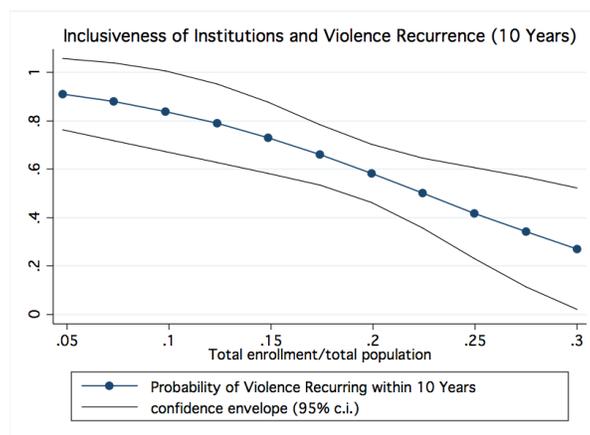
Figure 5.6: School Enrollment and Violence Recurrence (10 Years)

At the ten year interval much like at the two and five year thresholds, economic equality is a powerful predictor of violence recurrence. In fact, one standard deviation increase in income equality reduces the probability of violence recurring by 29% holding all other variables at their statistical constants. Political imprisonment representing the fairness of institutions of order (Figure 5.7) unsurprisingly remains a powerful predictor of violence recurrence. As such, change from a fully discriminating system to only partially discriminating (from 0

Variable	Mod 1	Mod 2	Mod 3	Mod 4	Mod 5	Mod 6
Explanatory Var						
Inclusiveness						
School Life Exp$_a$	-.150* (.090)	-	-	-.132 (.094)	-	-
Tot Enroll$_a$	-	-9.615 (4.423)	-	-	-13.093 (5.831)	-
Edu Expend$_a$	-	-	.085 (.064)	-	-	.173 (.271)
Inst of Order						
Pol Imprison$_a$	-	-	-	-2.187 (.831)	.413 (.858)	-2.133 (.755)
Control Variables						
Power-sharing	-.032 (.290)	-.207 (.259)	-.308 (.317)	.345 (.264)	.179 (.325)	.141 (.305)
GDP/capita$_a$	-.00003 (.00004)	-.00008 (.00005)	-.0001 (.0000)	.00009 (.0001)	-.00005 (.0001)	.000003 (.0001)
Democracy$_a$	-.052 (.091)	.054 (.098)	.079 (.093)	.171 (.133)	.201 (.132)	.226 (.131)
Income Equal$_a$	-15.897 (6.363)	-14.462 (6.237)	-13.498 (6.907)	-34.530 (11.605)	-35.955 (11.336)	-32.640 (10.520)
N	92	95	92	68	70	71
Log-likelihood	-56.062	-57.218	-57.021	-36.841	-33.121	-36.841
$\chi^2_{(10/11)}$	14.58	16.89	9.66	17.03	20.58	18.04

Logistic regression coefficients reported, standards errors are in parentheses.
variable$_a$ = two year lead (T+2)

Table 5.3: Violence Recurrence within 10 Years

to 1) decreases probability of violence by 48% while full change toward fair institutions of order reduces the predicted chances of violence recurring by 82%. This is not a surprising influence as consistently non-discriminatory institutions of law can over time more credibly structure inter-group interaction and reduce probability of violence. The fact that the effect is increasing over time suggests that long-term benefits of fair institutions of state indeed aid in mistrust reduction (Rothstein 2005, Levi 1998, Rothstein & Uslaner 2005).
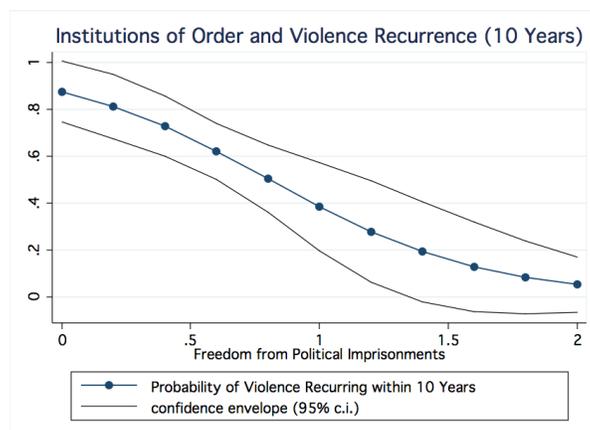
Figure 5.7: Institutions of Order and Violence Recurrence (10 Years)

Finally, unlike for shorter time periods, school enrollment as a measure of the inclusiveness (universality) of institutions is negative and significant supporting my first hypothesis (Hypothesis 1). It suggests that indeed as predicted (Hypothesis 3), the influence universal institutions have on trust takes time and their effect on probability of violence recurring is more salient in the long-term. Indeed, for conflicts recurring within 10 years since cessation of hostilities 5% change in enrollment (one standard deviation) reduces probability of conflict recurring by nearly 8%. Following section outlines this study's limitations, provides conclusions and suggestions for future research.

CHAPTER 6

CONCLUSIONS

Present work aims at introducing some of the findings of social capital literature about trust into the literature concerned with, what are at essence, deeply mistrusting societies. Specifically, the role of the inclusive institutions such as educational system and fair institutions of order should in short-term signal government's commitment to peace and in the long-term provide fair and credible space for cross-identity interaction. Those effects, it is here argued, reduce implicit mistrust and allow for enduring peace rather than recurrence of violence.

Indeed, post conflict states practicing large-scale political imprisonments necessarily elicit increased mistrust and increase the likelihood of reverting to violence. States with institutions that do not prosecute political opponents manage inter-group mistrust and reduce chances for violence recurring. As such, mistrust-reducing effects of fair institutions of order find strong support in empirical testing. It is instrumental to note that such institutional fairness was not only significant at all three time points (two, five and ten years), but its effects accumulate and grow over time, suggesting important insights into the time-specific effects of the institutions of state.

Universal institutions of state measured here through educational system's performance did not display a strong effect in the short-term but demonstrated significant long-term peace promoting effects. First, findings are rather consistent with the deductive logic of my argument, suggesting that the space for fair inter-group interaction requires time for "socialization" effects to generate what Putnam (2000) calls bridging trust. In other words, while common space for interaction is unlikely to integrate societies in the immediate aftermath

of domestic violence, in the long term it can instill sense of credible structure for cross-group interaction, reducing mistrust and suspicion and leading to the reduced probability of reaching for violent means of future conflict resolution.

It is important to acknowledge crucial limitations of the aggregate character of education system measurement. As such, it is difficult to discern if schools are integrated, allowing for socialization, or segregated along the line of identities of ex-belligerents, producing little cross-group interaction. It is also possible that messages that students receive at school are either programmatically biased and discriminatory or that teachers take liberties at presenting biased perspectives regardless of central governments commitment to messages of national reconciliation and unity. Future studies, to explore this difficulties, should investigate particular demographics of school compositions to assess the space for inter-group interaction and reduction of social mistrust. In other words, were Tutsi children in post-genocide Kigali taught in the same schools with Hutus or were schools segregated, and consequently what does that tell us about perspectives for long-term peace. Finally, school system's performance is instrumentally related to the level of development. While a low income country such as Cuba is capable of providing a high level of education services to nearly all citizens, most post civil war states do not have that capacity. In future studies, careful desegregation of development and education effects should illuminate this relationship further.

The analysis also demonstrated that economic equality, when controlling for the level of development, is a powerful factor tied to the likelihood of violence recurring. Indeed, equality as argued (Uslaner 2002), is one of the strongest correlates of social trust. It is hardly surprising for at least two reasons. First, as mentioned earlier, economic power is fungible and as such can be translated into military advantage. In a polarized society, mistrust of the economically powerful group is not entirely unfounded and directly informs the domestic security dilemma. Second, and related, even if institutions of state satisfy fairness and inclusiveness standards, high levels of inequality may be mitigating those effects. The privileged group may be attending private institutions and taking full advantage of fair due

process, while economically disadvantaged groups may be concentrated in state institutions and lack economic power to employ law to their benefit. Trust is unlikely to take root in such environment.

The relationship between economic equality and fairness of legal institutions at the two year recurrence threshold is especially telling. Indeed, both factors describe types of equity one in terms of economic distribution and the other of equality of treatment. In this sense, reduction in mistrust may be best achieved by encouraging equality and equatable development of all groups in society. Not only will relatively equatable prosperity increase opportunity cost or renewed rebellion, but equally important, it reduces perception of dangers associated with disproportional increase in power of ones former enemy. In other worlds, in the post civil war state equality of treatment and economic prosperity reduces security dilemma and inter-group mistrust, creating ecology for durable peace. Inequality figures as a major explanatory variable in cross-national studies of trust and social capital and, it seems based on present findings, should not be omitted in studies of civil war and recurring domestic violence.

However, perhaps most encouraging are the implications of this study. Unlike many previous studies, I investigate factors that are in essence under the control of post civil war governments. Specifically, policies of legal discrimination and investment in private goods as opposed universal inclusive institutions are specific policy outputs. What the findings of this study suggest is that those policies can be molded to produce short and long-term institutional ecology that reduces social mistrust, assuages the security dilemma, and reduces the probability of renewed fighting. Some of the classic findings suggesting that wealthier countries have a lesser probability of war recurrence (Fearon & Laitin 2003) are not only unsurprising but also unhelpful in terms of policy output in the short-term. While development is undoubtedly crucial to a long-term solution to recurring violence (Collier 2003), findings suggest that the perception of fairness as basis for structuring relations between former belligerents, and rebuilding of trust should be treated as at least equal priorities.

Ultimately, increasing fairness of the institutions of order in the short-term, and in the long-term promotion of economic growth, equality, and educational attainment is within reach of leaders and policies. The willingness of those in charge to change perspective and focus on an inclusive and fair environment is perhaps the greatest challenge as security dilemma affects not only the weaker but also the stronger side to contest. Social trust, however can reduce transaction costs in polarized societies and produce long-term peace, the ultimate goal of states locked in the conflict trap.

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.1 APPENDIX A

Variable	Recurrence Within 5 Years	Recurrence Within 10 Years
Education (SLE)	-.329	-.243
	(.002)	(.012)
Enrollment	-.266	-.268
	(.012)	(.011)
Education Expenditure	-.014	-.150
	(.903)	(.178)
Income Equality	-.131	-.222
	(.222)	(.036)
Political Imprisonment	-.283	-.221
	(.022)	(.077)

Pairwise Correlation coefficients , significance p-values reported in parentheses

Table 1: Correlation of Main Explanatory Variable and Violence Recurrence

Models table below are drawn from main analysis and report findings for the Model 5 in at all time periods.

Following tables (7.3, 7.4) present fully specified predictive models for using alternatively GDP/capita and dummy variable for low income country. First, as visible on the graph the separation between the education measure of the sample countries versus GDP/capita is much larger, and holding more variance. Second, and related income per capita for countries included in the sample is highly concentrated below approximately $6000. Therefore the difference in income may not be substantial while log of that measure will contain enough separation and inflate significance of even token difference. Based on GDPc measure I code a dummy variable indicating whether a nation under study can be considered poor in the sample.

In Figure 6.1 dashed line indicates cut-off for dummy coding. If GDP/capita is below $4000 coded as 1 otherwise 0. This threshold is roughly consistent with the World Bank's of lower middle income threshold containing lower end of developing states.[1] Such recoding

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[1]World Bank definition of lower income country http://web.worldbank.org/WBSITE/EXTERNAL/ DATASTATISTICS/0,, contentMDK:20420458 menuPK:64133156 page PK:64133150 piPK:64133175 theSitePK:239419,00.html
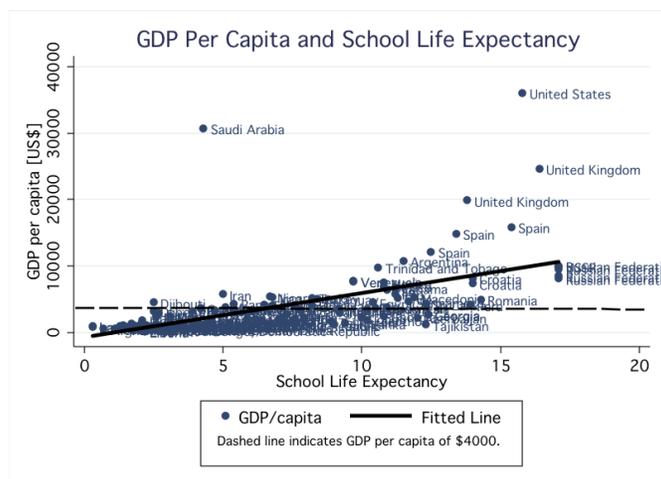
r=.752 (p=.000)

Figure 1: Distribution of Real Income per Capita and School Life Expectancy

provides 33 observations coded as 0 and 59 as 1 for sample of counties used in the base model. I run an alternative for $5000 and $6000 with no substantive change to the variable effect.

For theoretical reasons the measure of the GDP growth is the quite interesting. While it is quite well documented that level of development and wealth correlates highly with probability of civil war (Collier and Hoeffler 1999, 2000, 2002, Collier et al 2003, Fearon and Laitin 2003), such findings are no only unsurprising but more importantly not very useful. In applied normative terms it is to say that if one country is undeveloped and has experienced a civil war episode all it needs to do is increase its development level. This however takes time. Measure of GDP growth is more interesting as it can gage a relative impact focusing on the macroeconomic performance has on endurance of peace. Can focusing on the GDP growth stymie recurrence of violence? Table 7.3 and 7.4 below present the results.

Table 2: Violence Recurrence within 2, 5 and 10 Years: Best Models

Variable	Model 1 (2)	Model 2 (5)	Model 3 (10)
Explanatory Variables			
Universality of Education			
School Life Expectancy$_a$	-	-	-
Total Enrolment$_a$	-9.763 (7.862)	-10.046 (6.277)	-13.093 (5.831)
Educational Expenditure$_a$	-	-	-.077 (.043)
Institutions of Order			
Political Imprisonments$_a$	-1.66 (.688)	-3.813 (.943)	-2.413 (.858)
Control Variables			
Power-sharing	.128 (.289)	.645 (.322)	.179 (.325)
GDP per Capita$_a$	-.00004 (.0002)	-.00006 (.00015)	-.00005 (.0001)
Democracy$_a$	.059 (.088)	.264 (.142)	-.201 (.132)
Income Equality$_a$	-26.399 (11.112)	-41.145 (12.061)	-35.955 (11.336)
N	69	70	70
Log-likelihood	-30.533	-26.984	-36.841
$\chi^2_{(5/6)}$	17.58	29.27	19.04

Logistic regression coefficients reported, standards errors are in parentheses.
variable$_a$ = one year lead (T+1) for model 1 and two year lead (T+2) for Models 2 and 3

Table 3: Violence Recurrence within 5 & 10 Years

Variable	Model 1 (5)	Model 2 (10)	Model 3(5)	Model 4(10)
Partition	-.31	-.47	-2.37	-3.18
	(1.10)	(1.23)	(.94)	(1.26)
Power-sharing	.43	-.30	1.62	.85
	(.29)	(.27)	(.39)	(.36)
Victory	-.20	.16	1.55	2.68
	(1.25)	(1.35)	(.74)	(1.52)
Territorial War	1.06	1.33	.78	1.05
	(.45)	(.54)	(.76)	(.68)
Battle Deaths	-1.15	-1.27	-2.87	-1.76
	(0.58)	(.58)	(.99)	(.94)
Ethnic Fraction	1.14	1.51	.74	2.07
	(1.78)	(1.63)	(1.41)	(1.55)
GDP¡$4000	.49	.41	2. 13	1.13
	(.97)	(.87)	(1.54)	(1.16)
Democracy	-.001	.02	.48	.29
	(.08)	(.09)	(0.20)	(.14)
Income Equal	-17.67	-21.67	-88.74	-59.09
	(8.55)	(7.51)	(19.66)	(15.56)
Explanatory Var				
Education	-.17	-.16	-.03	-.10
	(.07)	(.08)	(.08)	(.11)
Pol Imprison	-	-	-4.52	-2.10
		-	(1.51)	(.99)
N	87	87	67	67
Log-likelihood	-46.995	-44.653	-19.665	-25.525
$\chi^2_{(10/11)}$	40.96	39.97	68.80	46.21

Logistic regression coefficients reported, standards errors are in parentheses

Stata 10 was used for all statistical estimations.

Table 4: Violence Recurrence within 5 & 10 Years

Variable	Model 1 (5)	Model 2 (10)	Model 3(10)	Model 4(5)
Partition	-.10	-.44	-3.27	-2.11
	(1.10)	(1.27)	(1.27)	(1.26)
Power-sharing	-.39	-.30	1.04	1.56
	(.27)	(.27)	(.56)	(.46)
Victory	-.40	.09	3.68	1.05
	(1.25)	(1.39)	(1.89)	(.73)
Territorial War	1.19	1.43	.90	80
	(.49)	(.52)	(.69)	(.76)
Battle Deaths	-1.07	-1.25	-1.58	-2.43
	(0.54)	(.56)	(.93)	(1.13)
Ethnic Fraction^2	.69	1.61	3.32	1.06
	(1.77)	(1.66)	(1.64)	(1.96)
GDP/capita(log)	-.56	-09.	-.75	-.49
	(.51)	(.37)	(1.21)	(1.35)
Democracy	-.02	.02	.25	.44
	(.09)	(.09)	(0.16)	(.18)
Equality	-18.03*	-20.41	-50.27	-69.93
	(9.67)	(7.05)	(13.09)	(16.46)
Explanatory Var				
Student Life Exp	-.13	-.17	-.25	-.02
	(.08)	(.09)	(.14)	(.12)
Pol Imprison	-	-	-2.28	-4.32
		-	(1.27)	(1.73)
N	87	87	67	67
Log-likelihood	-46.681	-44.742	-25.513	-20.279
$\chi^2_{(10/11)}$	36.20	38.61.	35.03	64.29

Logistic regression coefficients reported, standards errors are in parentheses

Stata 10 was used for all statistical estimations.

Figure 2: Conflict Recurrence List

Country Name	Year	Recurr at 2	Recurr at 5	Recurr at 10
Afghanistan	2001	1	1	1
Argentina	1977	0	0	0
Azerbaijan	1993	1	1	1
Azerbaijan	1995	0	0	0
Bangladesh	1992	0	0	0
Burundi	1972	0	0	0
Burundi	1988	0	1	1
Cameroon	1984	0	0	0
Chile	1973	0	0	0
Croatia	1995	0	0	0
Egypt	1998	0	0	0
El Salvador	1991	0	0	0
Eritrea	1997	1	1	1
Eritrea	1999	0	1	1
Ethiopia (-1992)	1992	1	1	1
Ethiopia (1993-)	1996	0	1	1
Ghana	1981	1	1	1
Ghana	1983	0	0	0
Guatemala	1995	0	0	0
India	1971	0	0	0
India	1988	0	1	1
India	1988	0	1	1
India	1990	0	1	1
India	1991	0	1	1
India	1993	0	0	0
India	1993	1	1	1
India	1994	1	1	1
India	1995	1	1	1
India	1997	0	1	1
Indonesia	1978	0	0	0
Indonesia	1989	0	1	1
Indonesia	1991	0	0	1
Indonesia	1992	0	1	1
Indonesia	1998	0	0	0
Iran	1988	1	1	1
Iran	1993	0	1	1
Iran	1997	1	1	1
Iraq	1970	0	1	1
Jordan	1970	0	0	0
Kenya	1982	0	0	0
Liberia	1980	0	0	1
Madagascar	1971	0	0	0
Mexico	1994	1	1	1
Mexico	1996	0	0	0
Morocco	1971	0	1	1
Morocco	1989	0	0	0
Mozambique	1992	0	0	0
Nicaragua	1979	1	1	1
Nigeria	1970	0	0	0

Figure 3: Conflict Recurrence List (Continued)

Pakistan (1972-)	1971	0	1	1
Pakistan (1972-)	1977	0	0	0
Pakistan (1972-)	1990	0	1	1
Panama	1989	0	0	0
Paraguay	1989	0	0	0
Philippines	1990	0	1	1
Philippines	1995	1	1	1
Philippines	1997	1	1	1
Romania	1989	0	0	0
Russian Federation	1991	0	0	0
Russian Federation	1993	0	0	0
Russian Federation	1996	0	1	1
Russian Federation	1999	0	0	1
Saudi Arabia	1979	0	0	0
Senegal	1990	1	1	1
Senegal	1993	1	1	1
Senegal	1995	1	1	1
Somalia	1978	0	1	1
Somalia	1984	1	1	1
Spain	1981	0	0	1
Spain	1987	0	1	1
Spain	1992	0	0	0
Sri Lanka	1971	0	0	0
Sudan	1971	0	1	1
Sudan	1972	0	1	1
Sudan	1976	0	0	1
Suriname	1988	0	0	0
Syria	1982	0	0	0
Thailand	1982	0	0	0
Trinidad and Tobago	1990	0	0	0
Tunisia	1980	0	0	0
Turkey	1992	0	0	0
Uganda	1972	1	1	1
Uganda	1974	0	1	1
Uganda	1992	1	1	1
United Kingdom	1991	0	0	1
United Kingdom	1998	0	0	0
USSR	1990	1	1	1
Venezuela	1982	0	0	1
Venezuela	1992	0	0	0