VIOLENT CONFLICT AND THE STRENGTH OF CIVIL SOCIETY

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Leading theories of institutional and economic development emphasize the role of informal institutions and the strength of civil society. Well identified household level studies show that exposure to violent conflict may increase pro-social behavior, such as participation in social groups and contributions to public goods. Evidence suggests that civil war may influence formal institutional quality at the country level, however, evidence that violence can change civil society or informal norms at the county level is sparse. In this study I apply the synthetic control method to model the impact of violent conflict on the strength of civil society at the country level. I focus on five countries in which existing micro-level evidence suggests that exposure to violence changes behavior or informal norms: Sierra Leone, Burundi, Uganda, Nepal and Liberia. Results of the synthetic control analysis suggests that civil war is associated with stronger civil society in at least some contexts.

Keywords: Institutional Change, Violent Conflict, Informal Institutions, Civil Society

JEL Codes: D74, O17, P48, P50

Introduction

Violent conflict, such as war, can shock the status quo leading to institutional changes. However, country level empirical evidence on the relationship between violent conflict and informal institutions such as the strength of civil society is sparce. In this study I investigate whether violent internal conflict corresponds to changes in the strength of civil society at the country level.

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Informal institutions,[1] including the strength civil society, are central to several leading theories of institutional and economic development (Acemoglu and Robinson, 2019; Fukuyama, 1996; North, 1990). Evidence suggests that under some circumstances individualism is associated with the quality of economic institutions (Moellman and Tarabar, 2021) and gender equality (Davis and Williamson, 2019). Informal constraints facilitate the protection of private property (Williamson and Kerekes, 2011) and may substitute for formal rules when such rules are weak (Williamson and Mathers, 2011). Acemoglu and Robinson (2019) describe the formal strength of the state and the informal strength of civil society as two core aspects of institutions responsible for development. Wars are large shocks to informal norms and even preferences, making these events a unique opportunity to study institutional change. Blattman and Miguel (2010) note that the long run effects of violent conflict on economic development depends on the degree to which conflict influences the character of institutions. Empirical evidence from cross-country studies supports the notion that violent conflict affects formal institutions. The risk of civil conflict may weaken constraints on the executive (Aguirre, 2016), weaken democracy and civil liberties (Chen et al., 2008), and war can increase the scope of government (Higgs, 1987; O'Reilly and Powell, 2015). Brice (2018) finds mixed evidence of the effect of war on civil liberties, democracy and economic institutions.

Much of the empirical evidence for the relationship between economic performance and institutional quality comes from studies that measure both formal (Acemoglu et al., 2001; Acemoglu and Johnson, 2005) and informal institutions (Knack and Keefer, 1997; Williamson, 2009) at the country level. Whereas evidence that violent conflict changes informal institutions, such as norms or participation in civil society, tends to come from individual and household level studies. In a meta study, Bauer et al. (2016) find that exposure to violence is associated with a variety of pro-social behaviors. Exposure to violence has been shown to increase social group participation, participation in community leadership, pro-social behavior in trust games, among other behaviors.[2] These studies have convincing identification strategies but have limited external validity because they can only identify localized effects on those exposed, not whether these household level effects result in institutional changes at the country level.

This study fills a gap in the literature by testing whether violent conflict in the form of civil war is associated with stronger civil society at the country level. Specifically, I focus on five countries for which there is robust household level evidence of changes in informal institutions: Burundi, Liberia, Nepal, Sierra Leone, and Uganda. The heterogenous nature of violent conflict poses a challenge to modeling its effect on the development process. Though cross-country studies tend to treat the effect of war as homogeneous; an exception is Bove et al. (2017) who model the effect of civil war on GDP per capita using the synthetic

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[1.] We draw on the delineation from North (1990), among others, that distinguishes between formal and informal institutions. A related literature contrasts formal (legislatures and regulators) and informal (informal gatherings, private associations) collective choice arenas (Ostrom 1990). Sometimes called civil society, these non-state associations can include community groups, religious groups, non-profit organizations, and other social organizations (Paniagua and Rayamajhee 2021).

[2.] Section IV discusses these studies in more detail.

control method. Using a similar methodology, O'Reilly (2021) finds that civil war can influence the quality of institutional protections of property rights. Following these two studies, we apply the synthetic control method to construct a counterfactual for the strength of civil society following civil war. The results show that for at least some countries civil war is associated with an increase in an index measuring the strength of civil society, though the effect is heterogeneous across countries.

The next section discusses various theories of how changes to behavior at the individual or household level may map into broader changes to informal institutions or civil society. Section III discusses some of the challenges of modeling institutional change and describes the synthetic control method used to construct a counterfactual. The results of five case studies are presented in Section IV. Section V interprets the results and concludes.

Theories of Violent Conflict and Institutional Change

Violent conflict, ranging from civil unrest to full scale civil war or genocide,[3] may lead to changes in civil society through various channels. Civil society emerges through collective action. Social norms of cooperation, that solve the collective action problem, can emerge in a model (for example a public goods game) with two types of players: rational egoists and conditional cooperators. Norms of cooperation are sustainable as long as a sufficient proportion of the population are conditional cooperators (Ostrom, 2000). Exposure to violent conflict may change the expected proportion of conditional cooperators by directly changing preferences or changing the payoffs to being a conditional cooperator. Therefore, the extent of cooperation and emergence of social norms is likely dependent on the extent of violent conflict.

Economists usually take preferences as given, but a large shock may be such a formative experience it may change the underlying beliefs and preferences of individuals. Indeed, a literature in psychology studies the long-lasting effect of traumatic events on individuals. Psychological research describes how traumatic experiences can lead to anxiety, depression or more severe psychiatric problems, though Tedeschi and Calhoun (2004) discuss the possibility of more positive outcomes in what they refer to as "post-traumatic growth." If the proportion of those affected is large, these individual changes in beliefs and preferences may map into boarder changes to norms and the strength of civil society.

Rather than focusing on how violence directly changes individual preferences, exposure to violence may influence social preferences. One strand of evolutionary theory suggests that intergroup competition will lead to selection for either individual psychological traits or social norms that promote the success of the group, see Wilson (2012) for a discussion of the literature. Psychological responses or social norms that favor the in-group over outsiders will therefore be selected. Alternatively, individual selection may also lead to norms that favor the in-group. Through either channel, to the extent that exposure to violence increases the salience of intergroup competition, it may induce changes in social preferences or norms. See Bauer et al. (2016) for a more in-depth discussion of

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[3.] Section III describes how violent conflict is defined for the empirical analysis in this study.

this theoretical mechanism and a review of the empirical literature supporting the theory that exposure to violence increases pro-social behavior, in particular pro-social behavior toward the in-group.

Finally, an economic approach (or the neoclassical framework) proposes that institutional change will occur due to changes in relative prices or incentives. Organizations and individuals choose to operate (and maximize) within a given institutional framework or to maximize by attempting to change the institutional framework. Therefore, violent conflict can change institutions, including civil society, if the conflict changes relative prices, which may include factor prices, changes to technology, the cost of information or the cost of bargaining (North, 1990: 83-84; (Olson, 2000).

Violent conflict may strengthen civil society directly by changing individual or social preferences or it may weaken or strengthen civil society indirectly through its effect on formal institutions. Though there are various theoretical channels by which conflict may influence informal institutions, whether the shock of violence conflict is sufficient to change broad norms or informal institutions remains an empirical question.

Constructing a Counterfactual

a. Empirical models of institutional change and violent conflict

Most cross-county studies of institutional change have applied panel fixed effects models and focused on changes to formal political (Aguirre, 2016) or economic institutions (Brice, 2018; Lawson et al., 2020). Though, case studies can be a useful technique to study institutional change (Skarbek, 2020). For example, by applying the synthetic control method to study how mass migration effects institutional quality in Jordan (Nowrasteh et al., 2020) and Israel (Powell et al., 2017).

The economic effects of conflict are context dependent. Empirical studies of the effect of violent conflict or civil war on development must account for such heterogeneity. However, case studies often lack a formal quantitative counterfactual which limits the inference can be drawn from case studies alone. Studying the economic effect of terrorism in the Basque region of Spain, Abadie and Gardeazabal (2003) overcome this limitation by using the synthetic control method to construct a counterfactual path of economic development. At the intersection of the literature on the effect of civil war and the literature on institutional change, O'Reilly (2021) applies the synthetic control method to model the effect of civil war on institutions related to the rule of law, access to justice and the protection of private property.

b. The synthetic control method

We model institutional change using the synthetic control method. Like other statistical techniques, the synthetic control method is used to estimate a treatment effect, τ_1, as the difference between the treated observations, y_1, and a set of weighted untreated comparator observations, y_i.

$$\tau_1 = y_1 - \sum_{i=2}^{N+1} w_i y_i$$

Given the determinants of institutions, constructing a counterfactual path of institutions that places weights on all observed units, as occurs in regression analysis, would likely place weights on irrelevant observations. The synthetic control method avoids comparing dissimilar units in two ways. First, the researcher restricts the donor pool – the set of countries that are included in the analysis. Then a counterfactual is created as a weighted average of comparison units (countries in this case). The distance, D, between a vector of covariates, X, for the treated country and the synthetic control country is minimized by selecting weights, W. Countries that are dissimilar in terms of covariates may receive a zero weight, further mitigating comparisons to countries with different institutional contexts.

$$D = \left(\left(X_1 - X_0 W \right) V \left(X_1 - X_0 W \right) \right)^{\frac{1}{2}}$$

Covariates, X, are chosen to predict pretreatment values of institutional quality and matrix V is a set of covariate weights determined by the degree to which they predict pretreatment institutional quality. Following (Abadie et al., 2015), among others, we use an iterative optimization procedure to minimize the root mean squared prediction error between the pre-treatment institutional quality of the treated and comparator observations.

c. Measuring civil war and civil society

i. Civil war

We only consider cases in which there exists household or community level evidence of an effect of exposure to violent conflict on behavior or informal institutions. In a meta-study Bauer et al. (2016) considers 19 micro-level studies, across 10 different countries, of the effect of violent conflict on behavior or informal norms. Synthetic control analysis requires a significant number of pre-treatment periods to fit a model.[4] Of the 10 countries considered in the Bauer et al. meta-study, Georgia, Tajikistan, Bosnia Herzegovina, Israel, and Indonesia are excluded from our analysis because the pre-treatment period occurs before sufficient data become available. The five countries that remain are the focus of the present study: Burundi, Liberia, Nepal, Sierra Leone and Uganda.

The Armed Conflict Dataset produced as part of the Uppsala Conflict Data Program (UCDP) includes data on the violence threshold reached in a given year (25 or 1000 battle related deaths), as well as the year that a conflict reaches a cumulative intensity of 1000 battle related deaths. Bauer et al. (2017) and O'Reilly (2021) use the lower 25 battle related death threshold to define conflict onset. Because we are interested in whether exposure to violence can lead to broader changes in norms, we choose to use a higher violence threshold of the year that a war reaches a cumulative intensity of 1000 battle related deaths as the start date.

The synthetic control method requires a donor pool of comparator countries that have not experienced treatment in the pre-treatment or the post-treatment period. In their application of the technique to civil war Bove *et al.* (2017) and O'Reilly (2021) study a period of 15 pre-treatment years and 10 post-treatment years between 1960 and 2010. We

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[4.] Following Bove et al. (2017) we use 15 pre-treatment years.

adopt their criteria of 15 pre-treatment years but extend the post treatment period to as many as 20 years. Due to data limitations the post-treatment period is limited to only 13 years for Burundi, nine for Nepal, and eight for Liberia.

ii. Civil society

The strength of civil society is measured by two indexes from the Varieties of Democracy (V-Dem) dataset. The V-Dem dataset provides a long timeseries of institutional measures for a large cross-section of countries. We use two measures from the V-Dem dataset to measure the strength of civil society: the core civil society index and the civil society participation index.

The core civil society index seeks to answer, "How robust is civil society?" This index is constructed using a Bayesian factor model of the following three components: CSO (civil society organization) participatory environment, CSO entry and exit, and CSO repression. The V-Dem codebook clarifies that "The core civil society index CCSI is designed to provide a measure of a robust civil society, understood as one that enjoys autonomy from the state and in which citizens freely and actively pursue their political and civic goals, however conceived." See the V-Dem codebook for a full description (Coppedge et al. 2019). The civil society participation index seeks to answer: "Are major civil society organizations (CSOs) routinely consulted by policymakers; how large is the involvement of people in CSOs; are women prevented from participating; and is legislative candidate nomination within party organization highly decentralized or made through party primaries?" The index is constructed from a Bayesian factor model of the following four components: candidate selection (national/local), CSO consultation, CSO participatory environment and CSO women's participation.

Table 1:   Summary Statistics

Variable	Mean	SD	Max	Min	N
Civil Society Participation Index	0.55	0.29	0.99	0.02	6700
Core Civil Society Index	0.56	0.31	0.98	0.01	6700
Log GDP per capita	8.52	1.24	12.41	4.96	6406
Log Population	2.14	1.63	7.20	-2.21	6406
Electoral Democracy	0.43	0.29	0.94	0.01	6682
Distance	0.29	0.19	0.72	0.00	6703
Human Capital	2.01	0.71	3.70	1.01	6406

Note: The civil society participation index, the core civil society index and electoral democracy are from the V-Dem dataset (Coppedge et al. 2019). Data on log GDP per capita, log population and human capital are from the Penn World Tables (Feenstra et al., 2015). Legal origin is from (LaPorta et al., 2008) and distance measures the absolute distance from the equator.

Components or indicators from V-Dem are coded by country experts who tend to be academics or professionals who have knowledge of the subject area, most of whom are nationals of or live in the country they are coding. V-Dem strives for five experts to

code each country-year observation and aggregates scores from difference coders with a Bayesian measurement model which also adjusts for potential bias; see Pemstein et al. (2021) for details of the measurement model.

iii. Control variables

The weights used to construct the counterfactual synthetic control country are based on how similar those countries are to the treatment country in term of a set of covariates. The covariates are selected and weighted based on how well they predict the pretreatment values of the index of civil society.

Informal institutions tend to be highly persistent. Therefore, pretreatment values of the civil society index are expected to be good predictors of civil society. Though some have used all pre-treatment values as covariates, for example Bove et al. (2017), Kaul et al. (2015) cautions that including all pre-treatment values can lead to bias because other relevant covariates may receive a zero weight. To balance this tradeoff we use, the first, the eight, and fifteenth pre-treatment values of the civil society index as covariates.

Other covariates are included to capture demographic, economic, political, and geographic characteristics of the country that may influence civil society. The log of GDP per capita accounts for the standard of living and the log of population is included to account for the size of the country (Feenstra et al., 2015). Formal political institutions are intertwined with norms like civil society. As such, we include the measure of electoral democracy from V-Dem as a covariate.[5] Institutions are rooted in slow changing or fixed factors such as history and geography (Auer, 2013; Boettke et al., 2008). To account for an aspect of history we included legal origin as a covariate (LaPorta et al., 2008). Two aspects of geography enter the analysis. First, the donor pool is restricted to include only countries in the same region as the treatment country. Second, the absolute distance from the equator is included as a covariate. Summary statistics for the covariates are presented in Table 1.

Cases

We present five cases of civil war as empirical evidence on the relationship between violent conflict and informal norms of civil society. For each case we briefly summarize the existing literature on the link between violent conflict and informal norms or pro-social behavior which consists of household or community level evidence. Then we evaluate the fit of our estimated pre-treatment synthetic counterfactual followed by a discussion the treatment effect of the civil war on civil society by comparing the true post-treatment index of civil society to the counterfactual values of the index. Finally, we evaluate whether the measured effect is statistically significant using two methods. In-space-placebo tests are conducted to test if the effect is statistically significant for individual post-treatment years – the results are available upon request. We also test if the effect is significant for all post-treatment years in a joint significance test (F-test).

[5.] The V-Dem electoral democracy index seeks to answer, "To what extent is the ideal of electoral democracy in its fullest sense achieved?" See the V-Dem codebook for information of the subcomponents that make up this index (Coppedge et al. 2019).

The Figure 1 plots the average score of the core civil society index in Sub-Saharan Africa and in South Asia along with the score for the five countries under consideration. Since 1960, scores have increased for each country under consideration and for both regional averages. However, to draw inference from these patterns of institutional change a more rigorous counterfactual is necessary.

Core Civil Society Index
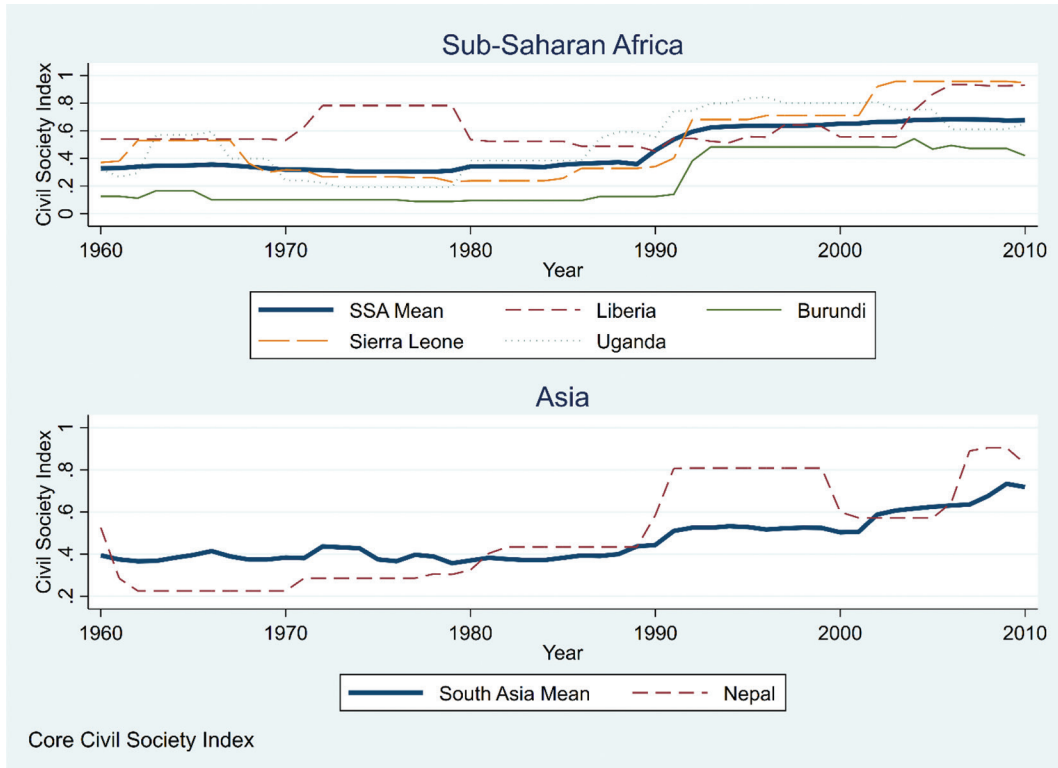
a. Uganda

i. Background and literature

Uganda experienced low level violence in the early 1970s involving coup-d'états and interventions from neighboring countries. High levels of violence continued throughout the 1980s until a peace agreement was reached in 1988. Though, violence continued under the infamous Joseph Kony and the Lord's Resistance Army (LRA) which engaged in a campaign of abductions throughout the 1990s.

Table 2   Fit of the Synthetic Control – Civil Society Participation

	Treated Covariates	Synthetic Covariates	Weights	Synthetic Country	Weight	RMSPE
Burundi						
Civil Society (t-1)	0.48	0.60	0.06	Malawi	0.45	0.08
Civil Society (t-8)	0.12	0.14	0.21	Gabon	0.28	
Civil Society (t-15)	0.09	0.14	0.14	Swaziland	0.26	
Log GDP per capita	6.67	8.00	0.02			

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Log Population	1.66	0.87	0.01			
Electoral Democracy	0.18	0.21	0.51			
Distance Equator	0.04	0.15	0.01			
Legal Origin	1.00	0.28	0.04			
Human Capital	1.13	1.56	0.00			
				RMSPE SSA:		0.25
Liberia						
Civil Society (t-1)	0.56	0.55	0.97	Swaziland	0.49	0.04
Civil Society (t-8)	0.51	0.55	0.00	Tanzania	0.48	
Civil Society (t-15)	0.49	0.49	0.00	Malawi	0.02	
Log GDP per capita	5.99	7.85	0.00			
Log Population	0.84	1.64	0.00			
Electoral Democracy	0.25	0.27	0.01			
Distance Equator	0.07	0.18	0.00			
Legal Origin	1.00	1.00	0.02			
Human Capital	1.50	1.56	0.00			
				RMSPE SSA:		0.08
Nepal						
Civil Society (t-1)	0.60	0.79	0.00	Fiji	0.47	0.09
Civil Society (t-8)	0.81	0.75	0.69	Mongolia	0.41	
Civil Society (t-15)	0.43	0.43	0.06	Vietnam	0.12	
Log GDP per capita	7.02	8.15	0.02			
Log Population	3.02	0.70	0.05			
Electoral Democracy	0.32	0.47	0.00			
Distance Equator	0.32	0.32	0.09			
Legal Origin	1.00	0.47	0.01			
Human Capital	1.32	2.31	0.07			
				RMSPE SSA:		0.23

Note: Results are obtained from estimating a synthetic control model as described in section III.

Household level studies of exposure to violence in Uganda tend to focus on the more recent violence perpetrated by the Lord's Resistance Army (LRA). De Luca and Verpoorten (2015a) find that district level violent conflict leads to a contemporaneous decrease in generalized trust and membership in associations but that violence can stimulate political discussion and local meeting attendance (De Luca and Verpoorten 2015b). Violence from the LRA is associated with both economic and psychological effects (Blattman and Annan 2010; Annan et al. 2011). Blattman (2009) studies the behavior of youth who were abducted and have returned from displacement, finding that abductees are more likely to vote and to be community mobilizers.[6]

[6.] A community mobilizer is defined as "elected members of the community who are responsible for organizing the community for daily or weekly meetings" (Blattman, 2009).

ii. Synthetic control results

We now turn to the synthetic control results to test if the violent conflict corresponds to stronger civil society at the country level as measured by the core civil society index. The synthetic counterfactual of Uganda consists of 58% Benin, 29% Malawi and 13% Tanzania, see Table II. Despite a seemingly good match in terms of covariates, the pre-treatment match with the core civil society index is relatively poor. Synthetic Uganda has a lower score on the index during the early pre-treatment period and a lower score than actual Uganda in the later pre-treatment period. This poor match is reflected by the high RMSPE of 0.12, no lower than the RMSPE between Uganda and the Sub-Saharan African average. Therefore, we are less confident in the inference that can be drawn in the case of Uganda. As shown in Figure 2, the core civil society index increases immediately following treatment in Uganda but about a decade later the index also increases in synthetic Uganda. At the end of the period of study, the core civil society index almost identical in Uganda and synthetic Uganda. Given the small treatment effect and poor pretreatment fit of the model it is no surprise that neither the in-space-placebo test or the joint F-test (F-stat = 1.03) find a significant treatment effect. The analysis of Uganda does not find any evidence of a treatment effect from the violent conflict.
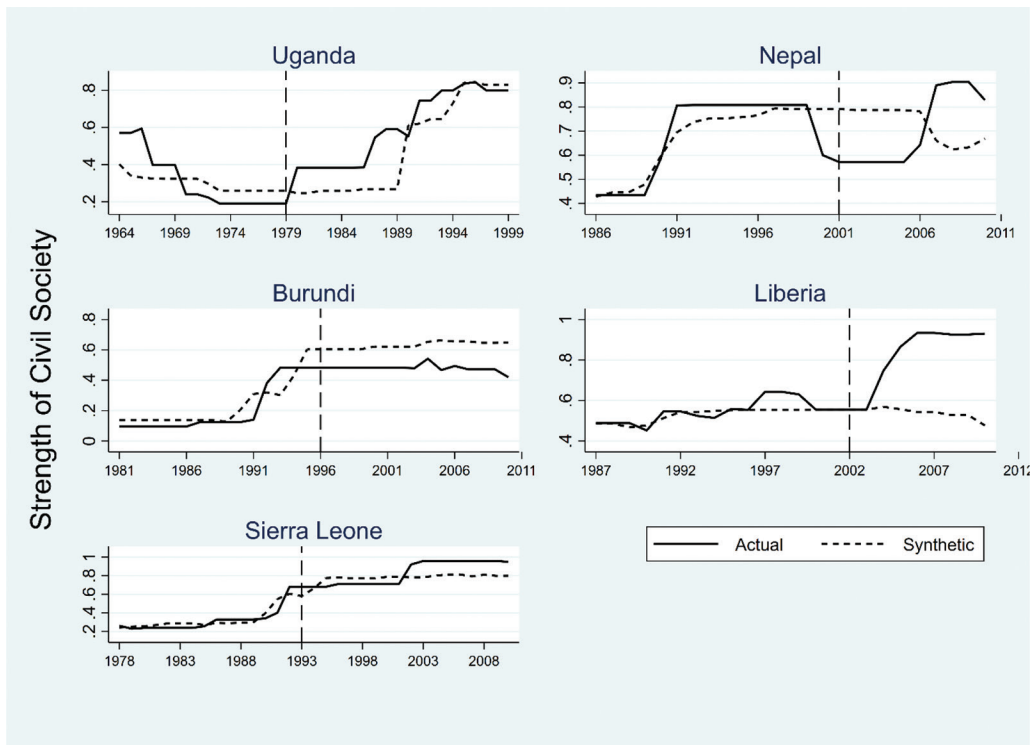
a. Nepal

i. Background and literature

Civil war in Nepal began 1996 with relatively low levels of violence. By 2001 the violence escalated with the formation of the rebel People's Liberation Army, the same year that the conflict reached the threshold of 1000 cumulative battle related deaths. Most of the

violence took place between 2001 and 2005, reaching over 1000 battle related deaths every year between 2002 and 2005. In addition to casualties, more than 100,000 people were displaced due to the violence. The civil war was brought to a close with a peace agreement in 2006.

Community level evidence from Nepal shows a relationship between violence and informal norms. Gilligan, Pasquale, and Samii (2014) find that violence intensity is associated with higher voter turnout and higher scores on a community group participation index. Rather than focusing social trust, Juan and Pierskalla (2016) study the effect of violence on trust in the Nepalese government. They find that individuals from villages exposed to more violence tend to exhibit lower levels of trust in the national government.

ii. Synthetic control results

To assess if violence in Nepal is associated with similar effects on community participation at the country level, we construct a synthetic Nepal that consists of 47% Fiji, 41% Mongolia, and 12% Vietnam. This synthetic counterfactual is slightly richer, better educated and more democratic than actual Nepal. Despite these differences in development, the pre-treatment path of the civil society participation index tracks the true path closely, including a sharp increase in the late 1980s. With a RMSPE 0.09, the synthetic control for Nepal is a better fit than that of Uganda and a notable improvement over the Asian average with a RMSPE of 0.25.

Prior to the onset of high intensity conflict in 2001 the core civil society index declines from about 0.8 to less than 0.6, see Figure 2. Because the synthetic counterfactual does not decline, there is a negative treatment effect between 2001 and 2006. In 2006 the core civil society index increases to above its pre-treatment level and the synthetic counterfactual decreases, producing a positive treatment effect. The joint F-tests shows a significant difference between pre-treatment and post-treatment (F-stat = 10.29) but placebo tests show that only the first post-treatment year is statistically significant. The mixed effect Figure 2 makes it difficult to draw any strong conclusions. Robustness checks using the alternative start date of 1996 show similar results, though the civil society participation index show no treatment effect. Therefore, we do not find evidence that civil war has a consistent positive or negative effect on the strength of civil society in Nepal.

b. Burundi

i. Background and literature

The 1993 election in Burundi resulted in the first Hutu president Melchior Ndadaye, who, within months was assassinated. The assassination was the catalyst for thousands of genocidal killings and retaliatory killings which was ultimately the onset of the civil war. The civil war resulted in 300,000 dead and over 1 million displaced (Bundervoet et al., 2009). The Arusha Peace Accords in 2000 began the process of peace, though violence continued until 2008.

Voors et al. (2012) find that individuals exposed to violence at the individual or community level tend to be more altruistic to their neighbors. Using household level data collected in 1998 and 2007 Voors and Bulte (2014) show that exposure to violence leads to more secure land tenure within the local informal land tenure system and that social capital

and trust are influenced by exposure to violence from outsiders. Finally, Voors and Bulte (2014) find that exposure to violence leads to a worse perception of the quality of formal institutions of the state, including the army, the police, the local justice authority and the local political authority.

ii. Synthetic control results

In the baseline synthetic control model, counterfactual Burundi consists of 45% Malawi, 28% Gabon, and 26% Swaziland. This mix of comparison countries is quite similar to Burundi in terms of the covariate country characteristics as reported in Table II. The synthetic counterfactual is more developed, with a higher income, higher level of human capital and a higher score on the electoral democracy index. As shown in Figure 2, the synthetic counterfactual tracks the civil society index closely despite a sharp change in the index during the pre-treatment period. The RMSPE of the synthetic control is an improvement relative to the RMSPE for the Sub-Saharan African average of 0.25.

The core civil society index does not change with the onset of war in 1996 though it increases slightly in the early 2000s only to decline in the latter half of the decade. The result that the measured strength of civil society in Burundi is lower than the synthetic counterfactual a decade after the onset of civil war. Placebo tests show that in several years the decline is statistically significant from changes in civil society in other countries in the donor pool. However, the F-test fails to reject the null of joint significance (F-stat = 1.41). As a robustness check we conduct the same analysis using the civil society participation index – the results are available upon request. The treatment effect with this alternative index is also negative. Taken together, we do not evidence that the civil war in Burundi is associated with an increase in the strength of civil society, instead the evidence suggests that civil war undermined the strength of civil society at the country level.

c. Liberia
i. Background and literature

The first Liberian Civil war began in 1989 and resulted in the capture of the capital by the National Patriotic Front of Liberia in 1990, bringing Charles Taylor to power. The second Liberian civil war began in 1999 with both forces entering from neighboring Ghana and uprisings within Liberia. Although violence was occurring as early as 1999, violence reached a threshold of 1000 cumulative battle related deaths in 2002 according to the UCDP dataset. The Accra Comprehensive Peace Agreement brought the war to a close in 2003.

Micro-level evidence of the effect of violence on norms and behavior in Liberia includes Hartman and Morse (2018) find that Liberians that experienced violence during their civil war were more altruistic. (Fearon et al., 2009) also studies post-conflict altruism in Liberia but instead focuses on "community driven reconstruction" programs. They find that villages randomly treated with a community driven reconstruction program give more in a public goods game.

ii. Synthetic control results

The counterfactual synthetic Liberia is constructed from 49% Swaziland, 48% Tanzania and 2% Malawi. Synthetic Liberia is more democratic and richer that actual Liberia. The

synthetic strength of civil society tracks the true path closely during the pre-treatment period with a RMSPE of 0.04 compared to the Sub-Saharan African average RMSPE of 0.8. As shown in Figure 2, soon after the onset of high intensity civil war in Liberia between 2002 and 2003, the core civil society index increases whereas the index is stable for the counterfactual. This produces a substantial positive treatment effect of about 0.3 for most post-treatment periods, which is equivalent to about one standard deviation the full sample. The in-space-placebo test shows that the increase in the index after treatment is unusual relative to other countries in the donor pool. The effect is statistically significant in six of the eight post-treatment years. Further, a joint significance test of all post-treatment periods shows that the effect of treatment is significant in Liberia (F-stat = 46.80).

Robustness checks using the civil society participation index find a similar positive treatment effect. The alternative civil society participation index yields similar results which are available upon request. The results of the synthetic control analysis indicate that high intensity civil war in Liberia is associated with an increase in the strength of civil society at the country level. We do find evidence of a positive treatment effect in Liberia, but either effect of civil war on the strength of civil society occurs only later – when higher intensity fighting was taking place – or the primary results are not robust.

d. Sierra Leone

i. Background and literature

The catalyst for the civil war in Sierra Leone was the invasion of by the Revolutionary United Front (RUF) from Liberia in 1991. Fueled by contestable diamond wealth (Keen, 2005) the civil war continued until 1999, killing 50,000 people and displacing close to 1 million (Bellows and Miguel, 2006).

Bellows and Miguel (2009) find that households that were victimized by conflict in Sierra Leone were more likely to vote and were more likely to attend community meetings (Bellows and Miguel, 2009, 2006). Further, those that experienced more intense violence were more likely to join political groups and community groups as well as more likely to contribute to local public goods (Bellows and Miguel, 2009).[7] Similarly, Koos (2018) finds that households exposed to conflict-related sexual violence are more likely to be members of local associations and more likely to contribute funds to local communal events.

A decade after the civil war in Sierra Leone (Bauer et al., 2014) conducted experimental studies in Georgia and Sierra Leone that indicate that those exposed to the war made more egalitarian choices when dealing with a member of the "in-group" while there was no increase in egalitarianism for interactions with the "out-group." Cecchi et al. (2016) find similar in-group and out-group dynamics in a study of youth football players in Sierra Leone. Finally, Cilliers, Dube, and Siddiqi (2016) show that post-conflict reconciliation programs in Sierra Leone strengthened social capital but that it came at the expense of psychological health.

[7.] See González and Miguel (2015) for a comment on potential omitted variable bias.

ii. Synthetic control results

Synthetic Sierra Leone consists of 29% Malawi, 29% Zambia, 23% Gabon and 19% Tanzania. This counterfactual matches Sierra Leone closely in terms of GDP per capita and the score on the electoral democracy index. The counterfactual has a larger population and more human capital. The close match in-terms of covariates yields a close match in terms of the pre-treatment civil society index with a RMSPE of 0.06, an improvement over 0.08 for the regional average.

As shown in Figure 2, the core civil society index does not increase with the onset of high intensity civil war in Sierra Leone in 1993 but does increase nearly a decade later. The strength of civil society increases to a level greater than that of the synthetic counterfactual ten to 15 years after the onset of civil war yielding a positive treatment effect. In-space-placebo tests indicate that the positive treatment effect is significant several post-treatment years, including year well after the end of the conflict. Further, the joint significance test is highly significant (F-stat = 4.49).

Robustness checks using the civil society participation index show a similar treatment effect that is marginally statistically significant. Taken together, the results suggest that civil war is associated with a modest but significant increase in the strength of civil society. The analysis of Sierra Leone is the strongest evidence of a positive association between civil war the strength of civil society at the country level.

Interpretation and Conclusion

Violent conflict is associated with changes to household level behavior and informal institutions. This study fills a gap in the literature by testing whether violent conflict in the form of civil war is associated with changes to the strength of civil society at the country level. The results indicate that for at least some countries, civil war is associated higher values on an index of the strength of civil society. We identify the effect by conducting synthetic control analysis on five cases of civil war in Burundi, Liberia, Nepal, Sierra Leone and Uganda. Using the synthetic control method, the treatment effect is estimated for each case individually, therefore accounting for the heterogeneity of civil war. We find some evidence that civil war is associated with a weakening civil society in Burundi and a strengthening of civil society in Liberia. The most persuasive evidence that civil war is associated with stronger civil society at the country level is from in Sierra Leone.

Our results reemphasize the importance of the various micro-level studies linking violent conflict to changes in behavior and norms by demonstrating that these localized effects may indeed lead to broader changes in the character of institutions. Finally, several leading theories of suggest that the strength of civil society is a fundamental determinant of institutional and economic development. By contributing to the literature on the determinants of the strength of civil society this study has implications for institutional and economic development more generally.

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