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History and Civil Conflict

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Abstract

How much does the antiquity of states, and the sometimes arbitrary nature of colonial boundaries, explain why some states are more susceptible to civil conflict than others? Older states and those with greater historical legitimacy (more continuity between the pre-colonial and post-colonial state) have less ethnic diversity. Controlling for a lack of historical legitimacy, ethnic polarization adds to the risk of conflict, but a short history of statehood does not. The degree of political organization of ethnic groups or their exclusion from political power does not significantly affect the risk of conflict.

1. Introduction

The effects of ethnic diversity have been widely studied both in terms of economic growth (Easterly and Levine, 1997; Alesina *et al*., 2003; Alesina and La Ferrara, 2005; Posner, 2004; Collier and Hoeffler, 1998) and civil war (Fearon and Laitin, 2003; Collier and Hoeffler, 2004; Hegre and Sambanis, 2006; Wimmer *et al*. 2009; Montalvo and Reynal-Querol, 2005; Esteban and Ray, 2008). Over a period of decades (the typical time-span of such research), measures of the ethnic diversity of a state are effectively fixed, in the absence of unusual circumstances such as boundary changes or genocides. On a longer view, however, ethnic diversity is not just a matter of genetic composition but also of the history of statehood. The majority of the population of England and Turkey defines itself today as English and Turkish respectively, but in 500 A.D., the ethnic structure of these countries was very different. Moreover, in each case the genetic composition of the population is dominated by the inhabitants who pre-dated the arrival of the invaders that gave the country its name and language; these original inhabitants are scarcely represented in the modern ethnic map of these countries. In organized states, the ruling language tends to expand at the expense of others, because of its official status and its association with power and wealth. This is most evident in the case of long-lasting empires, as can be seen from the history of China. The legacy of the Roman Empire is evident in the predominance of Latin languages in Portugal, Spain, France and Romania, even though Latin was not spoken at all in these regions before their conquest by Rome. To cite another example, most of the population of North African countries defines itself as Arab, but none would have done so before the Arab invasions.

In this paper we explore the relationship between the history of statehood and modern ethnic diversity, and whether a weak history of statehood renders a country more likely to be subject to civil conflict, in which ethnic diversity is often implicated. We capture the history of statehood using two measures, both of which are discussed in greater detail below: the state antiquity index of Bockstette *et al.* (2002), and an index of the state's historical legitimacy developed by Englebert (2000).

The paper is structured as follows. Previous research is reviewed in Section Two. Hypotheses are presented in Section Three, and data are discussed in Section Four. Results are presented in Sections Five and Six. Section Seven concludes.

2. Literature Review

In relation to the effect of ethnic diversity on civil war, the literature can be divided into two broad strands. The first strand views civil war as the result of ethnic grievance and/or relative deprivation of some kind (Davies, 1962; Gurr, 1970). The discrimination may be based either on economic factors (Hirshleifer, 2001) or political exclusion (Wimmer *et al*., 2009). When such discrimination becomes intense, ethnic groups may find it rational to rebel. The second strand addresses the deeper historical factors underlying ethnic politics.

The standard assumption behind the first line of research is that the level of perceived discrimination varies with the number and distribution of groups. For empirical purposes the probability of civil war should depend on an index which captures such a distribution. The most widely used are indices of ethnic fractionalization, which measure the probability that two randomly chosen individuals belong to different ethnic groups. If groups are ranked by size, the index is decreasing in the population share of any given group, with a minimum of zero for an ethnically homogeneous country, and a maximum of one for a country that is divided into an infinite number of tiny groups (e.g. Collier and Hoeffler, 2004; Fearon and Laitin, 2003). As Fearon (2003) has discussed at length, ethnic groups may not be easy to identify, particularly in countries with tribal communities that speak distinct but closely related languages, such as Madagascar or Somalia. For example Fearon's (2003) measure of ethnic fractionalization, which uses the *CIA Factbook* as its primary source, is not identical to the measure based on the 1960 Soviet *Atlas Norodov Mira* used by Fearon and Laitin (2003) and others. It is difficult to argue *a priori* that one measure is better than the other; however, provided that results are similar with either measure, no position on their relative merits need be taken.

Indices of ethnic fractionalization have been subject to two principal criticisms. One is that some groups may not be politically relevant and are less likely to be subject to political mobilization, which is probably a necessary step on the road to participation in ethnic conflict (Posner, 2004). Using this idea, Wimmer *et al*. (2009) construct a cross-country data set of the population shares of "politically relevant" ethnic groups, which are defined as those that are claimed to be represented by at least one political organization at the national level, or those that are subject to state-led political discrimination. They find that the exclusion from state power of sizeable politically relevant groups is positively correlated with civil conflict

(see also Cederman and Girardin, 2007; and Chandra and Wilkinson, 2008). The argument here is that ethnic diversity may not be a predictor of civil conflict in general, but tends to be where national politics has a significant ethnic component.

The other criticism is that conflict is most likely when the second largest ethnic group is sizeable and thus in a position to challenge the largest group for political power, an idea that may be captured by an index of polarization (Esteban and Ray, 2008).[1] Montalvo and Reynal-Querol (2005) argue that an index of polarization is a better predictor of the incidence of civil conflict than an index of fractionalization. Subsequent research suggests that polarization tends to prolong civil wars that are already in progress rather than to make them more likely to start (Montalvo and Reynal-Querol, 2010; Schneider and Wiesenhomeier, 2010). Another little-discussed issue is that the ethnic composition of particular regions of a country may differ radically from the national average, so national indices of fractionalization or polarization may not capture accurately the probability of local conflict (Bleaney and Dimico, 2009).

A second strand of literature focuses on ethnic politics and the impossibility of enforcing a stable democratic regime when ethnic cleavages are present in the country (Horowitz, 1985; Huntington, 1996). When voters and politicians find it efficient to build their electoral support along ethnic lines, citizens lack confidence in political institutions (Norris and Mattes, 2003). As a result, ethnic divisions lead to political systems which "*benefit few citizens at the expense of many*" (Keefer and Khemani, 2005: 1). Ethnic diversity is particularly high in Africa, and ethnic politics seems to be more crucial in African countries (Mattes and Gouws, 1999; Mattes and Piombo, 2001; Norris and Mattes, 2003).

But is this feature merely a reflection of some deeper characteristics of Africa? Many authors have stressed the arbitrariness of African state boundaries that were established in the colonial period (e.g. Ajala, 1983; Asiwaju, 1985; Barbour, 1961; Bello, 1995; Brownlie, 1979; Davidson, 1992; Kum, 1993; Nugent and Asiwaju, 1996; Touval, 1966). The effect of the colonial "Scramble for Africa" on current national African states has also been emphasized by Englebert (2000). Englebert argues that African states may be perceived as

[1] The main difference between an index of polarization (EP) and an index of fractionalization (EF) is that EP is increasing in the size of the second largest group, whereas EF is decreasing in the size of this group (and all other groups).

illegitimate because of the lack of historical continuity between the pre- and the post-colonial period. "*The variations in the extent to which post-colonial state institutions clash with pre-existing ones largely account for what differentiates state capacity and economic growth across the region. The greater the incongruence between pre- and post-colonial institutions, the greater the relative power payoffs to domestic elites of adopting neo-patrimonial policies over developmental ones"* (Englebert, 2000: 7). He uses this idea to construct an index of state legitimacy based on historical continuity (HL) which, he argues, significantly explains the poor performance of African states in terms of development. Englebert and Tull (2008) suggest that the same factors account for the prevalence of failed states in Africa.

An apparently similar idea seems to be captured in the index of state antiquity (SA) developed by Bockstette *et al*. (2002). This is a measure of the elapse of time since the formation of a national (non-tribal) state, and has also been used by Chanda and Putterman (2007) and Putterman and Weil (2010) to explain economic development. State history may matter because of cultural and institutional development over time, so that states with a longer history have better institutions, and so experience less civil conflict. In fact HL and SA are not highly correlated across countries (the correlation coefficient is 0.26), because the former focuses on the continuity between tribal and national states, while the latter only considers the period during which current national states have been in place. Of course, European states, which Englebert (2000) considers as legitimate, are also among the most antique national states in Bockstette *et al*. (2002), but the variation across former colonies between the two sources is quite different, so the two concepts are by no means identical in practice.

The importance of state formation and state continuity has long been debated in political science, mainly with regard to the process of national identity, which is considered essential for the legitimacy and sovereignty of the state. Gellner (1983) considers the coincidence of ethnic and political boundaries to be essential for the development of a national sentiment and identity. On the other hand Eriksen (1993, 2002) views nationalism as a necessary process to establish the ideological justification of the state. The idea of an historical continuity within the context of nationalism is discussed by Hastings (1997), who focuses on the development of an English national sentiment in Medieval Europe and the importance of shared languages, customs, and origins. In a similar fashion Green (2010) examines the pre-colonial African kingdom of Buganda, arguing that there are good reasons to claim that Buganda constituted a pre-

colonial nation-state. However, while in England the coincidence of "ethnic" and political boundaries was retained, Buganda was arbitrarily reshuffled under the colonial period, leading to the formation of a larger state (Uganda) with split ethnic groups, which jeopardized the development of a national identity. The Buganda insistence on maintaining a separate political identity is considered a major factor in the destabilization of Uganda after the country obtained independence in 1962 (Barkan, 2011).

The purpose of the present paper is to re-examine the statistical evidence on the correlates of civil conflict taking account of these recent ideas. We examine whether measures of historical continuity or state antiquity dominate ethnic diversity as predictors of civil conflict, and how much difference it makes to take account only of "politically relevant" ethnic groups.

3. Hypotheses

We first of all investigate whether ethnic diversity (ED) in the modern era reflects the antiquity (SA) and the historical legitimacy (HL) of states. Our hypothesis is that older states with greater continuity between pre-colonial and post-colonial times will have less ethnic diversity, because of the tendency for minorities to be absorbed by the ruling group.

Therefore we can summarize our hypothesis as follows:

1) Countries which have a long history are more likely to have gone through a state-formation process, forging a unique identity, which then decreases the level of fractionalization of groups because people consider themselves as citizens of that state first and members of ethnic or religious groups second.
2) The stronger is continuity between pre- and post-colonial state history and boundaries, the more likely it is that citizens will consider the state legitimate. Countries which have been completely reshuffled after the colonial period (most of the African and some of the Latin American and Asian countries) are less likely to develop a national identity, and because of that they will develop kinship relationships, with people considering themselves as members of a group rather than as citizens of the state. This in turn will affect the legitimacy of the government.
3) The longer is the history and the stronger the continuity of the state, the less is the risk

of conflict because the risk of ethnic rebellion decreases.

From an econometric point of view we can specify these hypotheses as follows. The relationship between ethnic diversity and state-history can be written as:

$$ED_i = a + bSA_i + cHL_i + u_i \quad (1)$$

Where ED_i denotes a proxy of ethnic division which we proxy using data on ethnic fractionalization from Fearon (2003) and a measure of Ethnic Polarization similar to the one in Montalvo and Reynal-Querol (2005) which we construct using data from Fearon (2003). The variable SA_i represents an index of State Antiquity which we collect from Bockstette *et al*. (2002), while HL_i represents a measure of Historical Legitimacy of the state which is provided by Englebert (2000). This regression is performed for a cross-country sample using data for the year 2000.

Then, to the extent that equation (1) does not yield a perfect correlation, we examine to what extent each of these variables predicts state *j*'s risk of civil conflict (CC) in year *t*, after controlling for other factors. Thus we estimate the probit model

$$\Pr(CC = 1) = \Phi(\underline{X}_{kjt}.\underline{\beta}_k + \alpha) + u_{jt} \quad (2)$$

where $\Phi(.)$ represents the cumulative normal distribution function; $\underline{X}_k$ is a vector of k explanatory variables that includes *HL*, *SA*, CC_{jt-1}, various measures of ethnic diversity and other control variables suggested by previous research; α and the k-vector $\underline{\beta}_k$ are parameters to be estimated; and u_{jt} represents a random error. The hypothesis here is that newer states with less historical legitimacy are more prone to civil conflict, whatever their ethnic composition today.

4) Data

One of the problems in the empirical literature on conflict relates to the low correlation between datasets, which can lead to different results depending on the datasets used (see Bleaney and Dimico, 2010). In order to avoid such a problem we start by using all of the datasets on conflict frequently used in the literature. Having shown that in this case results do not differ greatly between datasets, we concentrate on one for our main findings, to avoid unnecessary duplication.

The main dataset on conflict that we use for our analysis is the one provided by the Political Instability Task Force (PITF), which identifies a conflict as an episode of violent conflict between the government and a politically organized group where each party mobilizes 1000 or more people (armed agents, demonstrators, troops), and resulting in *"at least 1000 direct conflict-related deaths over the full course of the armed conflict and at least one year when the annual conflict-related death toll exceeds 100 fatalities"*(Marshall et al. 2009: 5-6). The UCDP/PRIO is the second dataset which we use. The UCDP/PRIO codes conflicts using two different coding rules. The first coding rule identifies conflicts (including low-intensity conflicts) as "*a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in a year*" (Gleditsch et al. 2002: 618-19). A second coding rules identifies civil wars, for which a cumulative criterion is used. A civil war is coded if "*the conflict since the onset has exceeded 1,000 battle-related deaths. A conflict is coded as 0 as long as it has not over time resulted in more than 1,000 battle-related deaths. Once a conflict reaches this threshold, it is coded as 1*" (UCDP/PRIO, 2008: 1).

Other datasets are provided by Gleditsch (2004), Sambanis (2004) and Fearon and Laitin (2003). Gleditsch (2004) updates data from the Correlates of War (COW) project[2] where a civil war is only recorded when the battle-related deaths exceed 1,000 annually. Sambanis (2004) and Fearon and Laitin (2003) combine an annual-death with a cumulative-death criterion. Fearon and Laitin (2003) code a conflict if annual deaths exceed 100 and the cumulative number of deaths is above 1,000. Sambanis (2003) uses similar criteria, but also

[2] The COW project was initiated by Singer and Small (1982, 1994) who defined a civil war when the battle-related deaths are above 1,000 per year. This is the definition which is predominant in civil war studies.

requires that there is no three-year period during which the conflict causes fewer than 500 deaths.

Our choice of independent variables is based on those used by Bleaney and Dimico (2010). We allow for the probability of civil conflict to vary with poverty, population size, the roughness of the terrain, oil fields and political structures. We also include a time trend (which is allowed to shift after 1990), and lagged values of the dependent variable. The lagged values of the dependent variable control for the fact that conflicts are persistent, and may be more likely to re-erupt after only a short period of peace. For further discussion of this choice of variables see Bleaney and Dimico (2010).

Data on ethnic fractionalization are from Fearon (2003), and Fearon's data on group shares are used to construct a measure of ethnic polarization using the formula of Montalvo and Reynal-Querol (2005), but with wider country coverage than their measure. Data on politically relevant ethnic groups and the size of the politically excluded population are all from Wimmer *et al.* (2009). Data on population and GDP per capita are from the World Bank (WDI), while data on mountainous terrain are from Fearon and Laitin (2003), data on oil fields are from Lujala *et al*. (2007); finally the Polity2 index is used to construct a measure of anocracy which takes the value one if the polity2 index of Marshall and Jaggers (2000) is between -5 and + 5 inclusive in the previous year.

We turn now to our measures of state history. Bockstette *et al*.'s (2002) measure of State Antiquity (SA) is constructed by dividing the period from the year 0 to 1950 A.D. into 39 half-centuries, assigning a score to each half-century, and then summing these scores to a present value by applying a discount rate. The score for each half-century is obtained by multiplying together three sub-scores. The first sub-score is the answer to the question: "is there a government above the tribal level?" (score 1 if yes, 0 if no). The second sub-score depends on whether the government is foreign- or locally based (score 1 if local, 0.5 if foreign (i.e. the country is a colony), 0.75 for intermediate cases). The third sub-score reflects how much of the modern country's territory was covered by this government (score 1 if over 50%, 0.75 if between 25% and 50%, 0.5 if between 10% and 25%, and 0.3 if less than 10%). After applying the chosen discount rate, the score is divided by the maximum score across all countries to give an index with a range from zero to one. Appendix B of Bockstette *et al*. (2002) gives the data for various discount rates. We use a discount rate of 5% that the

authors themselves favour (labelled by them *statehist05*). Note that this measure of state antiquity does not just reflect the length of time for which a state has existed, but also a country's independence, so to that extent it might be interpreted as including elements of legitimacy. Nevertheless the most important element is the issue of whether a state exists at all, since the score is zero for any half-century for which the answer to this question is zero.

Engelbert's measure of Historical Legitimacy is a pure binary variable "*that differentiates endogenous from imported statehood with the idea that political institutions which evolve endogenously to a society, as a result of domestic social relations or in opposition to neighboring societies, are presumed historically legitimate from a societal point of view*" (Engelbert, 2000, p. 1827). The emphasis is on the historical basis of the present state, rather than on how recently it evolved. A state is deemed historically legitimate if it passes *any one* of the following five tests: (1) it was not colonized in modern times; (2) on reaching independence, it recovered its previous sovereignty, identity or previous existence; (3) the country was uninhabited before colonization; (4) the colonizers reduced the pre-existing societies to numerical insignificance and became citizens of the new country; and (5) the post-colonial state did not do severe violence to pre-existing political institutions. In short, countries that have experienced colonization can still be classified as historically legitimate if there is a good deal of continuity between the pre-colonial and post-colonial state, or if the country is numerically dominated by the descendants of colonists rather than by the original inhabitants. In our sample, 64% of countries are classified as historically legitimate.

5) **Results**

We begin by investigating the relationship between ethnic diversity and the antiquity and legitimacy of the state, and then we move on in order to evaluate to what extent each of these variables predicts state *j*'s risk of civil conflict in year *t*, after controlling for other factors. The aim of these initials regressions is to understand how history has influenced the ethnic diversity of states.

In Table 1 we look at the relationship between ethnic fractionalization and state history. In Model 1 we only control for the measure of historical legitimacy (HL) of Engelbert (2000). The R-squared is relatively high for a bivariate regression (0.35), and the coefficient implies that historical legitimacy is associated with a lower level of fractionalization by 31 percentage points. The average level of fractionalization for legitimate countries is 0.34, whereas the average for illegitimate countries is 0.65. In Model 2 we replace HL with the measure of State Antiquity (SA), which also has a significant negative correlation with fractionalization, although the R-squared is much lower (0.09). Since the standard deviation of SA is 0.26, a one-SD increase in SA is associated with a fall in fractionalization of 0.26 x 0.305 = 0.08. When both variables are included, as in Model 3, the R-squared rises to 0.42, and they are both significant, but HL dominates the results. The coefficient of SA is just significant at the 5% level, and is only slightly over half its size in Model 2. In Model 4 we allow for the possibility that population size affects the relationship, but the variable is not significant.

Table 1: Ethnic Fractionalization and State History

	Dependent Variable: Ethnic Fractionalization			
Estimation Method: OLS	Model 1	Model 2	Model 3	Model 4
Historical Legitimacy (HL)	-0.312***		-0.313***	-0.307***
	(-8.67)		(-8.76)	(-8.74)
State Antiquity (SA)		-0.305***	-0.163**	-0.221**
		(-3.52)	(-2.11)	(-2.51)
Population (in log)				0.0218
				(1.58)
Constant	0.663***	0.604***	0.730***	0.548***
	(23.51)	(13.56)	(18.41)	(4.61)
Observations	145	137	131	131
R-squared	0.35	0.09	0.42	0.43

*** p<0.01, ** p<0.05, * p<0.1
t statistics in parentheses

In Table 2 we examine the relationship between HL and SA and the level of polarization. Though HL and SA are both significant when entered individually, the coefficients are much lower than for fractionalization, and the R-squared never exceeds 0.09. The average level of polarization for illegitimate states exceeds that for legitimate states by only 0.10.

For countries which are almost ethnically homogeneous, indices of fractionalization and polarization are both very low and, in fact, virtually proportional to one another. It is only for countries that are not so ethnically homogeneous that these indices can differ substantially. Approximately one-third of countries have an index of ethnic fractionalization below 0.3. If we re-estimate Model 1 of Tables 1 and 2 omitting these countries, the results are radically different, as shown in Table 3. For countries with a fractionalization index above 0.3, the correlation between fractionalization and HL is still significantly negative, but the correlation between ethnic polarization and HL is now significantly *positive*. This suggests that HL is not, in general, associated with a low degree of ethnic polarization, except in cases where polarization is a proxy for fractionalization, as is the case in highly homogeneous countries.

Table 2: Ethnic Polarization and State History

	Dependent Variable: Ethnic Polarization			
Estimation Method: OLS	Model 1	Model 2	Model 3	Model 4
Historical Legitimacy (HL)	-0.0982***		-0.107***	-0.108***
	(-2.69)		(-2.87)	(-2.89)
State Antiquity (SA)		-0.175**	-0.139*	-0.126
		(-2.17)	(-1.67)	(-1.32)
Population (in log)				-0.00498
				(-0.32)
Constant	0.644***	0.662***	0.706***	0.748***
	(26.53)	(18.26)	(17.77)	(5.66)
Observations	145	137	131	131
R-squared	0.04	0.04	0.09	0.09

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

t statistics in parentheses

Table 3: Ethnic Diversity and Historical Legitimacy if Fractionalization > 0.3

Estimation Method: OLS	***Ethnic Polarization***	***Ethnic Fractionalization***
Historical Legitimacy (HL)	0.076***	-0.184***
	(2.92)	(-6.45)
Constant	0.673***	0.703***
	(33.05)	(32.04)
Observations	100	100
R-squared	0.08	0.29

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

t statistics in parentheses

Given that HL and SA are both significant determinants of ethnic diversity, it is natural to wonder whether they also affect the probability of conflict. In Table 4 we investigate a possible effect of HL and SA on the incidence of conflict without controlling for any measure of ethnic diversity. Under all the six different datasets against which we test the two variables (PITF; UCDP/PRIO 25; UCDP/PRIO 1000; Sambanis, 2004; Fearon and Laitin, 2003; and Collier *et al*., 2009), HL significantly affects the probability of conflict, with more legitimate states experiencing a lower frequency of conflict. On the other hand the effect of SA is not significant, and this finding seems to be robust across the six different datasets.

Regarding other variables in the model, population, GDP per capita, and the share of mountainous terrain have expected effects either significantly increasing the probability of conflict (population and mountainous terrains) or decreasing the same probability (GDP per capita) . The probability of conflict increases over time (see Hegre, 2004) and if in the previous and the two previous years there were ongoing conflicts. Because of the robustness of results across different datasets in following tables we will only use the PITF.

Table 4: State History and Probability of Conflict

	Dependent Variable: Incidence of Civil War					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Estimation Method: Probit	PITF	UCDP/PRIO	UCDP/P. (1000)	Sambanis	FL	CHR
Log GDP per capita (t – 1)	-0.166***	-0.120***	-0.143***	-0.156***	-0.147***	-0.198***
	(-4.12)	(-3.80)	(-3.66)	(-3.86)	(-3.41)	(-4.27)
Population (t – 1)	0.114***	0.0938***	0.0609**	0.0963***	0.148***	0.119***
	(3.39)	(3.87)	(2.03)	(3.16)	(4.28)	(3.51)
Mountainous Terrain	0.335*	0.352**	0.230	0.374**	0.493**	0.525***
	(1.76)	(2.43)	(1.40)	(2.01)	(2.45)	(2.60)
Onshore Oil Fields	0.0141	0.0512	0.115	0.0292	-0.0333	-0.123
	(0.17)	(0.76)	(1.43)	(0.35)	(-0.37)	(-1.27)
Anocracy (t – 1)	0.0689	0.107	0.0844	0.116	0.0722	0.176*
	(0.72)	(1.36)	(0.93)	(1.17)	(0.68)	(1.76)
Cold War Dummy (1 if <1991)	0.0549	0.196	0.251	0.0806	0.0544	0.00494
	(0.20)	(0.95)	(0.96)	(0.27)	(0.17)	(0.02)
Time Trend	0.0128***	0.0116***	0.0143***	0.0137***	0.0125***	0.0139***
	(3.07)	(3.55)	(3.70)	(3.59)	(3.07)	(2.85)
Post-Cold War Time Trend	-0.00489	-0.00220	-0.00135	-0.00380	-0.00311	-0.00737
	(-0.74)	(-0.44)	(-0.22)	(-0.52)	(-0.40)	(-1.05)
Conflict (t - 1)	3.087***	2.034***	2.328***	2.843***	3.002***	2.598***
	(20.46)	(24.54)	(25.14)	(21.16)	(20.19)	(17.75)
Conflict (t – 2)	0.265*	0.942***	0.837***	0.441***	0.449***	0.489***
	(1.70)	(11.19)	(8.42)	(3.17)	(2.94)	(3.20)
State Antiquity (SA)	-0.0207	-0.0653	0.0674	-0.223	-0.170	-0.151
	(-0.12)	(-0.49)	(0.43)	(-1.27)	(-0.92)	(-0.79)
Historical Legitimacy (HL)	-0.207**	-0.242***	-0.171**	-0.243***	-0.275***	-0.218**
	(-2.14)	(-3.29)	(-1.99)	(-2.59)	(-2.59)	(-2.09)
Constant	-2.186***	-2.196***	-2.145***	-2.008***	-2.566***	-1.947***
	(-4.71)	(-5.87)	(-4.75)	(-4.44)	(-5.08)	(-3.76)
Observations	5,840	5,940	5,819	5,335	5,375	5,017
Robust z statistics in parentheses			.	.	.	.
*** p<0.01, ** p<0.05, * p<0.1						

In Table 5 we enter the two variables separately to test whether the insignificant effect of SA is due to a possible correlation with HL, but results are pretty much the same. Historical legitimacy has a significant and negative effect on the incidence of conflict (Model 1) even when the variable is not entered together with SA. Using the estimated marginal effects (not shown), a legitimate state is associated with a 2.3 per cent lower annual probability of conflict. On the other hand SA confirms its insignificant effects.

Many authors prefer to analyze the probability of conflict onset rather than incidence. In Table 6 we investigate the onset of conflict, confining the sample to those cases where the country was at peace in the previous year. The results are not very different to those for incidence: HL significantly decreases the probability of outbreak of conflict by almost 1 percent per year, but SA is still not significant.

Table 5: State History and Probability of Conflict

Dependent Variable: Incidence of Civil War		
	Model 1	Model 2
Estimation Method: Probit	PITF	PITF
Log GDP per capita (t – 1)	-0.150***	-0.202***
	(-3.96)	(-5.74)
Log Population (t – 1)	0.104***	0.111***
	(3.56)	(3.31)
Mountainous Terrain	0.349**	0.213
	(2.01)	(1.17)
Onshore Oil Fields	0.0444	0.0513
	(0.56)	(0.61)
Anocracy (t – 1)	0.0684	0.0938
	(0.75)	(1.00)
Cold War Dummy (1 if <1991)	0.0792	0.00490
	(0.31)	(0.02)
Time Trend	0.0130***	0.0128***
	(3.26)	(3.09)
Post-Cold War Time Trend	-0.00444	-0.00571
	(-0.70)	(-0.95)
Conflict (t - 1)	3.032***	3.096***
	(21.48)	(20.49)
Conflict (t – 2)	0.303**	0.277*
	(2.07)	(1.77)
Historical Legitimacy (HL)	-0.249***	
	(-2.83)	
State Antiquity (SA)		-0.137
		(-0.83)
Constant	-2.246***	-1.896***
	(-5.07)	(-4.52)
Observations	6,379	5,899
Robust z statistics in parentheses		. . .

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

Table 6: State History and Probability of Conflict Onset

Dependent Variable: Onset of Civil War		
	Model 1	Model 2
Estimation Method: Probit	PITF	PITF
Log GDP per capita (t – 1)	-0.183***	-0.242***
	(-4.32)	(-6.15)
Log Population (t – 1)	0.148***	0.167***
	(4.37)	(4.09)
Mountainous Terrain	0.389*	0.285
	(1.73)	(1.24)
Onshore Oil Fields	0.00769	-0.0504
	(0.08)	(-0.47)
Anocracy (t – 1)	0.168	0.208*
	(1.55)	(1.90)
Cold War Dummy (1 if <1991)	-0.148	-0.195
	(-0.49)	(-0.67)
Time Trend	0.0134***	0.0132**
	(2.63)	(2.46)
Post-Cold War Time Trend	-0.00916	-0.00989
	(-1.18)	(-1.28)
Conflict (t – 2)	0.262	0.136
	(1.01)	(0.47)
Historical Legitimacy (HL)	-0.294***	
	(-2.65)	
State Antiquity (SA)		-0.170
		(-0.81)
Constant	-2.173***	-1.887***
	(-4.20)	(-3.82)
Observations	5,498	5,067

Robust z statistics in parentheses . .
*** p<0.01, ** p<0.05, * p<0.1
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6) Ethnic Diversity, State History, and Civil Conflict

So far we have shown that state history significantly affects both ethnic diversity and the probability of conflict (both onset and incidence). However neither HL nor SA is a perfect determinant of diversity, and as a consequence it becomes important to evaluate the effects of proxies of ethnic diversity once these variables are entered together with measures of state history. Given the robustly insignificant effect of SA on the probability of conflict, we decide to dismiss the latter and focus exclusively on HL, looking at the effect of measures of diversity once they are entered together with HL.

Some political scientists have argued forcefully that political organization is a necessary step for an ethnic group to become involved in civil conflict (Posner, 2004; Wimmer *et al*., 2009), which implies that we should find a stronger correlation with civil conflict if we recalculate measures of ethnic diversity ignoring groups that are not politically organized. In their view, taking account of the political dimension should markedly improve the performance of empirical models that would otherwise include purely demographic measures of ethnic diversity. Wimmer *et al*. (2009) have attempted to identify "politically relevant" groups for 155 countries. In their definition (p. 325), "an ethnic category is politically relevant if at least one significant political actor claims to represent the interests of that group in the national political arena, or if members of an ethnic category are systematically and intentionally discriminated against in the domain of public politics." Their dataset gives the shares of such groups in the total politically relevant population, from which we calculate an Ethno-Political Fractionalization and an Ethno-Political Polarization index using the usual fractionalization and polarization formulae.[3] The hypothesis of Wimmer *et al*. (2009) is that "armed rebellions are more likely when the state excludes large sections of the population from central state power on the basis of their ethnic background" (p. 317). To this end they identify whether each politically relevant group is or is not excluded from power, and calculate a population share of the excluded groups, which they find to be a significant predictor of armed conflict.

Accordingly, we use five measures of ethnic diversity which have been proved to be significant determinants of the onset and incidence of conflict. These variables are: 1) Ethnic Fractionalization as in Fearon (2003); 2) Ethnic Polarization, constructed using data on group

[3] The Ethno-Political Fractionalization and Polarization indices given in the Wimmer *et al*. (2009) dataset contain significant errors.

shares from Fearon (2003); 3) Ethno-Political Fractionalization (EPF) calculated from politically relevant group shares in Wimmer *et al.* (2009), which is a fractionalization index that ignores groups defined as politically irrelevant; 4) Ethno-Political Polarization (EPP) calculated from politically relevant group shares in Wimmer *et al.* (2009), which is a polarization index that ignores groups defined as politically irrelevant; and finally, to investigate the role of exclusion from political power, we use (5) the population share of Politically Excluded Groups from Wimmer *et al.* (2009). The first two of these measures are purely demographic; the third takes account of political organization; and the fourth allows for exclusion from power as well.

Table 7 reports results for the incidence of conflict. In Model 1 we use the index of ethnic fractionalization (EF), which Bleaney and Dimico (2010) find to be significant when PITF data are used to analyse the onset and incidence of conflict. Historical Legitimacy retains its significance, decreasing the probability of conflict by almost 3.2 percent per year, but EF is not at all statistically significant. In Model 2 we replace EF with ethnic polarization (EP). The results are very different: EP is significant at the one percent level, and HL is also significant at the five percent level. Thus, even after controlling for historical legitimacy, a polarized population is associated with a higher risk of civil conflict. In Models 3, 4 and 5 EPF, EPP and the Politically Excluded Population all perform very similarly, being significant at the five percent level, so that they are more significant than a purely demographic measure of fractionalization but less significant than a purely demographic measure of polarization.

This result suggests that civil conflict is most likely in states that lack historical legitimacy and have sizeable minorities. Whether these minorities are politically organized or excluded from political power does not significantly affect the probability of conflict.

In Table 8 we repeat the same exercise replacing the incidence of conflict with onset as a dependent variable. The results are not very different from those for the incidence of conflict shown in Table 7. All of the ethnic diversity variables are less significant than in Table 7, except the Politically Excluded Population, which is now significant at the one percent level, whereas polarization is only significant at five percent. The lower significance of polarization for onset is consistent with previous research which suggests that polarization particularly affects the duration of conflicts.

Table 7: Ethnic Diversity, State History and Probability of Conflict

	Dependent Variable: Incidence of Civil War				
	Model 1	Model 2	Model 3	Model 4	Model 5
Estimation Method: Probit	PITF	PITF	PITF	PITF	PITF
Log GDP per capita (t – 1)	-0.145***	-0.160***	-0.150***	-0.161***	-0.154***
	(-3.80)	(-4.21)	(-3.87)	(-4.18)	(-3.94)
Log Population (t – 1)	0.103***	0.122***	0.102***	0.117***	0.107***
	(3.53)	(4.06)	(3.24)	(3.78)	(3.56)
Mountainous Terrain	0.331*	0.228	0.299	0.271	0.258
	(1.89)	(1.30)	(1.63)	(1.45)	(1.39)
Ethnic Fractionalization (EF)	0.158				
	(1.01)				
Ethnic Polarization (EP)		0.503***			
		(3.26)			
Ethno Political Frac (EPF)			0.354**		
			(2.30)		
Ethno Political Polariz (EPP)				0.302**	
				(2.42)	
Excluded Population (t – 1)					0.395**
					(2.51)
Onshore Oil Fields	0.0493	-0.0118	0.0359	0.00225	0.0209
	(0.62)	(-0.14)	(0.43)	(0.03)	(0.25)
Anocracy (t – 1)	0.0671	0.0620	0.0752	0.0719	0.0931
	(0.73)	(0.68)	(0.79)	(0.76)	(1.00)
Cold War Dummy (1 if <1991)	0.0602	0.0238	0.00488	0.0235	-0.0261
	(0.23)	(0.10)	(0.02)	(0.09)	(-0.10)
Time Trend	0.0129***	0.0131***	0.0137***	0.0135***	0.0137***
	(3.24)	(3.23)	(3.41)	(3.38)	(3.44)
Post-Cold War Time Trend	-0.00482	-0.00564	-0.00620	-0.00587	-0.00648
	(-0.76)	(-0.90)	(-0.97)	(-0.92)	(-1.02)
Conflict (t – 1)	3.032***	3.030***	3.004***	3.007***	3.013***
	(21.44)	(21.56)	(20.68)	(20.81)	(20.82)
Conflict (t – 2)	0.301**	0.281*	0.302**	0.302**	0.308**
	(2.06)	(1.93)	(2.01)	(2.02)	(2.05)
Historical Legitimacy (HL)	-0.200**	-0.193**	-0.135	-0.159*	-0.169*
	(-2.07)	(-2.20)	(-1.37)	(-1.66)	(-1.82)
Constant	-2.361***	-2.547***	-2.366***	-2.405***	-2.262***
	(-5.15)	(-5.43)	(-5.14)	(-5.26)	(-4.86)
Observations	6379	6379	5880	5,880	6082

Robust z statistics in parentheses

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

Table 8: Ethnic Diversity, State History and Probability of Conflict

	Dependent Variable: Onset of Civil War				
	Model 1	Model 2	Model 3	Model 4	Model 5
Estimation Method: Probit	PITF	PITF	PITF	PITF	PITF
Log GDP per capita (t – 1)	-0.183***	-0.193***	-0.207***	-0.214***	-0.190***
	(-4.35)	(-4.52)	(-5.01)	(-5.12)	(-4.32)
Log Population (t – 1)	0.148***	0.159***	0.149***	0.163***	0.155***
	(4.38)	(4.59)	(3.87)	(4.56)	(4.36)
Mountainous Terrain	0.391*	0.280	0.325	0.310	0.248
	(1.70)	(1.22)	(1.31)	(1.25)	(0.98)
Ethnic Fractionalization (EF)	-0.0134				
	(-0.07)				
Ethnic Polarization (EP)		0.398**			
		(2.28)			
Ethno Political Fract (EPF)			0.274		
			(1.32)		
Ethno Political Polariz. (EPP)				0.252	
				(1.64)	
Excluded Population (t – 1)					0.591***
					(3.27)
Onshore Oil Fields	0.00712	-0.0328	-0.00772	-0.0423	-0.0101
	(0.07)	(-0.32)	(-0.07)	(-0.41)	(-0.10)
Anocracy (t – 1)	0.168	0.162	0.188*	0.182	0.182
	(1.54)	(1.48)	(1.65)	(1.59)	(1.62)
Cold War Dummy (1 if <1991)	-0.148	-0.160	-0.283	-0.271	-0.323
	(-0.49)	(-0.52)	(-0.95)	(-0.92)	(-1.08)
Time Trend	0.0134***	0.0137***	0.0155***	0.0154***	0.0143***
	(2.62)	(2.64)	(2.98)	(2.96)	(2.75)
Post-Cold War Time Trend	-0.00915	-0.00966	-0.0121	-0.0120	-0.0124
	(-1.18)	(-1.23)	(-1.58)	(-1.57)	(-1.62)
Conflict (t – 2)	0.262	0.248	0.246	0.243	0.254
	(1.01)	(0.96)	(0.92)	(0.91)	(0.94)
Historical Legitimacy (HL)	-0.298**	-0.241**	-0.173	-0.191	-0.158
	(-2.29)	(-2.15)	(-1.27)	(-1.53)	(-1.28)
Constant	-2.164***	-2.412***	-2.087***	-2.164***	-2.218***
	(-4.09)	(-4.32)	(-4.04)	(-4.17)	(-4.00)
Observations	5498	5498	5034	5,034	5219

Robust z statistics in parentheses

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

7) Conclusions

National identity has always been considered an important element of the process of consolidation of the state, because it provides the common ground necessary for positive inter-group relations and interaction between citizens from different backgrounds. This process normally takes time, and because of that it is expected that states which have a longer history have had more chance to develop those shared values, which are normally considered important in terms of legitimacy. In some cases, the state formation process has been shattered by the imposition of arbitrary institutions or boundaries, which have caused a discontinuity between the pre-existing society and current institutional arrangements. As previous authors have identified, this problem is particularly severe for African countries.

Because of a greater sense of shared identity, older states with greater historical legitimacy are likely to experience less civil conflict. Moreover, because of this stronger sense of national identity, and also because of the tendency of ruling groups to absorb minorities over time, individuals may be more likely to define themselves as part of the same group, and so these states may be registered as more ethnically homogeneous, whatever the genetic composition of the population. We have tested these hypotheses using recently constructed measures of state antiquity and historical legitimacy, focusing on the continuity between the pre-colonial and post-colonial state.

We have shown that state history and historical legitimacy are both important determinants of ethnic diversity. Ethnic fractionalization is noticeably higher in less historically legitimate and, to a lesser extent, younger states. However, while historical legitimacy matters for the incidence and onset of conflict over the period since 1946, the age of the state does not. Moreover, an index of ethnic fractionalization is no longer associated with a significantly higher probability of conflict once we control for historical legitimacy. This suggests that it is the greater sense of shared identity and confidence in the institutions of historically legitimate states that deter civil conflict as much as their greater ethnic homogeneity.

On the other hand, results are markedly different when we use a measure of ethnic polarization, which captures the presence of large minority groups. Polarization is statistically significant in conjunction with historical legitimacy for both conflict incidence and onset, which indicates that communities with large minorities are more susceptible to conflict, in a

way that those with many small minorities (which implies significant fractionalization but low polarization) are not.

There is only very weak evidence that political organization is critical in converting ethnic divisions into civil conflict. Recalculating the polarization index based only on politically organized groups does not improve the fit of the model. Taking account of groups' exclusion from political power slightly improves the model of conflict onset, but not incidence.

Appendix – Ethnic diversity formulae used

Ethnic fractionalization (*F*) is calculated as

$$F = 1 - \sum_{i=1}^{n} \pi_i^2 \qquad \text{(A1)}$$

where π_i represents the population share of group *i* and *n* is the total number of groups. This measure has a minimum of zero, when there is just one group, and a maximum of one. In practice it is strongly negatively correlated with the share of the largest group.

Montalvo and Reynal-Querol's (2005) index of ethnic polarization (*P*) is:

$$P = 1 - \sum_{i=1}^{n} 4\pi_i (0.5 - \pi_i)^2 = 4\sum_{i=1}^{n} \pi_i^2 (1 - \pi_i) \qquad \text{(A2)}$$

In deriving the versions of these indices for politically relevant groups only, each group's population share is recalculated as a share of the total politically relevant population, and then the same formula is applied to the amended shares.

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