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COLONIAL LEGACY, STATE-BUILDING AND THE SALIENCE OF ETHNICITY IN SUB-SAHARAN AFRICA*

Merima Ali, Odd-Helge Fjeldstad, Boqian Jiang and Abdulaziz B. Shifa

African colonial history suggests that British colonial rule may have undermined state centralisation due to legacies of ethnic segregation and stronger executive constraints. Using micro-data from anglophone and francophone countries in sub-Saharan Africa, we find that anglophone citizens are less likely to identify themselves in national terms (relative to ethnic terms). To address endogeneity concerns, we utilise regression discontinuity by focusing on observations near anglophone–francophone borders, both across countries and within Cameroon. Evidence on taxation, security and the power of chiefs also suggests weaker state capacity in anglophone countries. These results highlight the legacy of colonial rule on state-building.

Building an effective state that can enforce its laws, maintain stability and provide public infrastructure remains a major challenge for ethnically diverse countries. Various correlates of ethnic tensions (e.g. fractionalisation, polarisation, segregation and interethnic income inequality) have been shown to be associated with such adverse outcomes as slower economic growth, higher incidence and duration of civil conflicts, weaker state capacity and the underprovision of public goods (Mauro, 1995; Easterly and Levine, 1997; Alesina *et al.*, 2003; Miguel and Gugerty, 2005; Montalvo and Reynal-Querol, 2005*a*,*b*; Baldwin and Huber, 2010; Alesina and Zhuravskaya, 2011; Hjort, 2014; Alesina *et al.*, 2016). The implications of these empirical patterns are especially severe in Africa owing to its relatively high level of ethnic diversity. Despite the emphasis on the problem of weak state capacity in Africa,[1] the role of history – in particular, that of colonial legacies – is far from fully understood.

In this article, we focus on the legacy of colonial occupation by the two largest colonial powers – Britain and France – on state-building in sub-Saharan Africa. The literature on colonialism and African history suggests two possible reasons why the legacy of British rule may differ from that of French rule. First, Britain adopted a 'divide and rule' strategy in which ethnic identities played a central role. A prominent feature of British colonial rule was its emphasis on native administration, a system of decentralised control in which the local population was segregated along tribal lines and ruled indirectly by local chiefs. Native administration empowered chiefs to rule over their respective local populations and instituted a rigid association between one's

* Corresponding author: Abdulaziz B. Shifa, Economics Department, Syracuse University, Syracuse, NY, USA. Email: abshifa@maxwell.syr.edu.

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[1] For a detailed review, see Acemoglu *et al.* (2016).

ethnic identity and access to basic resources (such as land and local government services). In contrast, France's colonial policy featured a more centralised approach in which ethnic cleavages played a less significant role. Local administrative boundaries in French colonies did not necessarily represent specific ethnic groups and, therefore, did not hinder various ethnic groups from belonging to the same political unit. Moreover, the use of French as a common official language was promoted throughout the colonies, encouraging language integration within the colonial bureaucracy. The power of local chiefs was also suppressed. These differences in approach to colonial rule suggest that the legacy of British rule may have undermined the formation of a shared national identity across ethnic groups, empowered local chiefs and weakened the central state (Dilley, 1966; Crowder, 1968; Miles, 1994; Mamdani, 1996; Alesina and Zhuravskaya, 2011; Acemoglu *et al.*, 2016).

Second, the French and English legal systems have different implications for the power of the executive. French civil law is often said to leave more political power and control in the hands of the central state, whereas judicial independence from the executive is viewed as a defining feature of British common law (Beck and Levine, 2005; La Porta *et al.*, 2008). Under civil law, the state could have a stronger legal power to centrally organise and control society (through policies such as state ownership of enterprises and military conscription). However, the relatively independent judiciary under common law may work against such a centralisation. Thus, the differences in the executive power under the two legal traditions also suggest that state centralisation might be relatively weaker in anglophone (than in francophone) countries because of colonial 'legal origins'.

Hence, British colonial rule, because of its approach to segregating ethnic groups and the common law tradition, may well have undermined state centralisation. At the same time, it is far from obvious whether this hypothesis is confirmed in the case of Africa (Herbst, 2014). Colonisers faced enormous logistic challenges in the African hinterland owing to tropical diseases and a lack of accessible roads. Herbst argues that the colonisers' effective control over their official territories was quite limited and, as a result, it is far from certain whether differences in colonial policies had a lasting impact on post-colonial state capacity.

In our empirical analyses, the main outcome variable is a micro-level indicator for the strength of national (*versus* ethnic) identification in a sample of adult Africans. This variable measures the extent to which individuals identify themselves with their countries as opposed to their own ethnic groups. We focus on the strength of national identification as our main outcome variable for two reasons. First, creating a sense of shared identity among citizens – a challenging task in the context of ethnic rivalries – is an important component of state-building (Alesina and Reich, 2013). Second, differences in the approaches to colonial rule and legal origins raise the question of whether colonial legacies affected the sense of national identification in contemporary Africa. One would expect that the legacy of ethnic segregation under British colonial rule fostered interethnic rivalry and hindered the formation of shared national identity among citizens. Furthermore, a stronger executive constraint in the British legal tradition would be expected to limit the state's power to implement national policies aimed at encouraging interethnic integration, such as army conscription, centrally managed elementary education and an expansive government bureaucracy.

Besides the evidence on national identification, we also examine the relationship between colonial rule and several different proxies for state capacity. The literature on state capacity emphasises the ability to raise taxes and to maintain law and order as important factors in economic development (Besley and Persson, 2009, 2010, 2011). In the African context, it is often argued that powerful traditional chiefs restrict the central state from exercising its control (Acemoglu *et al.*, 2016). Given the prominent role of chiefs under British colonial rule, one would expect chiefs to have greater power in anglophone countries. Relatedly, the existence of more layers of hierarchy prior to contact with Europeans is robustly associated with greater development today (Gennaioli and Rainer, 2007; Michalopoulos and Papaioannou, 2013, 2014). We therefore examine the empirical evidence on the association between British rule and state-capacity indicators for taxation, security and the power of traditional chiefs.

We use data from several rounds of the Afrobarometer surveys, which contain information on nationally representative samples of adult citizens in a number of African countries. The surveys provide data on about 100,000 respondents from 12 anglophone countries and nine francophone countries. Preliminary comparisons between all the anglophone and francophone respondents in our data show that anglophone respondents are less likely to identify themselves with their countries than with their ethnic groups, providing suggestive evidence for a negative association between the legacy of British rule and national identification.

As a first step in addressing endogeneity concerns, we exploit the wide geographic coverage of the data set and implement regression discontinuity (RD) analysis focusing on a subset of respondents from areas near the borders between anglophone and francophone countries. Given the arbitrary nature of colonial borders (Michalopoulos and Papaioannou, 2016), the results of this analysis help minimise the concern that pre-colonial differences between (what ended up being) anglophone and francophone countries could confound the results owing to, for example, a possible correlation between the coloniser's identity and ethnic rivalries that predated colonialism (Besley and Reynal-Querol, 2014). We find that the RD analysis also yields the same result: anglophone respondents report a weaker sense of national identity. Using observations from Cameroon, whose territory was divided between France and Britain, we carry out additional sets of RD analysis in which the variation in colonial status comes from within the same country – thereby keeping country-level differences constant. The results from the Cameroon sample also show a weaker sense of national identity among anglophone respondents.

The weaker sense of national identity among anglophones is consistent with the two explanations offered previously: a weaker executive power in the British legal tradition and the British approach to colonial rule (with respect to the role of ethnicity in colonial administration). Directly isolating the effects of these two potential explanations is not possible because our independent variable, namely the coloniser's identity, does not distinguish between them. Although the negative association between British rule and the strength of national identification – consistent with the literature on colonialism and African history – remains the main empirical contribution of this article, our results also provide some evidence suggesting that the approach to colonial rule (as opposed to legal traditions) is the more likely explanation. First, our result from Cameroon relies on within-country variations in the coloniser's identity,

suggesting that the difference in legal origins, which varies at country-level, is not the driving reason. Second, we introduce several controls (such as citizens' trust in the judiciary) that are plausibly associated with legal origins. We find that the result is unchanged when these controls are added, suggesting that differences in legal traditions do not affect the results.

We also examine a number of outcome variables to assess the evidence on taxation, chiefs' power and security. Many of these outcome variables are constructed from Afrobarometer surveys on the experiences and attitudes of respondents regarding taxes, safety and the role of chiefs in their community. In particular, we use micro-level indicators for tax-compliance norms, the strength of tax enforcement, the prevalence of extortion activities by non-state actors, the prevalence of crimes (such as theft) and the power of traditional chiefs. In addition to the Afrobarometer surveys, we also use two more data sets that provide georeferenced information on conflict events; this information is used to construct indicators for the prevalence of armed conflicts.

The empirical patterns from these outcome variables also suggest weaker state capacity among anglophones. As we show in Section 3, some of the estimated relationships between colonial status and these variables are insignificant while many are significant. For example, of the two security indicators that we sourced from Afrobarometer data, the first (prevalence of crime) is insignificant in some of the specifications whereas the second (prevalence of extortion by non-state actors) is significant across all specifications. Our indicator for the prevalence of armed conflicts is also significantly higher in anglophone regions across most specifications. Although anglophone respondents tend to report weaker tax enforcement and stronger power of chiefs, tax-compliance norms do not show significant differences. Crucially, however, the general pattern is that all of the significant coefficients suggest a lower state capacity (i.e. weaker tax enforcement, stronger power of chiefs and less security) among anglophone countries. Thus, the broad picture portrayed by these results – in line with the literature on colonial legacy and African history – is one that associates the legacy of British rule with weaker state capacity.

This article contributes to the literature on the role of history in state development, which we complement by highlighting the role of colonial history in state-building.[2] A strand of this literature examines the effect of pre-colonial history on contemporary development. The seminal study by Nunn (2008) shows how Africa's slave trade is correlated with ethnic fractionalisation, state development and income (Nunn and Puga, 2012). Nunn and Wantchekon (2011) find an adverse effect of slave trade on trust levels; Besley and Reynal-Querol (2014) explore the relationship between pre-colonial interethnic conflict and the contemporary salience of ethnic identity; and Michalopoulos and Papaioannou (2014) document the impact of pre-colonial institutions on subnational development.

Another strand of the historical literature studies the role of colonial history in post-colonial development. A number of these studies use macro-level cross-country data (Acemoglu *et al.*, 2001, 2002; La Porta *et al.*, 2008; Feyrer and Sacerdote, 2009). From a methodological standpoint, our article is closely related to the growing literature that

[2] See Nunn (2014) and Michalopoulos and Papaioannou (2015, 2018) for a detailed review of the literature on the role of history in economic development.

utilise RD analysis of micro-level data to examine colonial legacies (Banerjee and Iyer, 2005; Dell, 2010; Bubb, 2013; Pinkovskiy, 2013; Michalopoulos and Papaioannou, 2014, 2016; Baruah *et al.*, 2017; Lechler and McNamee, 2017). However, none of these studies look at the effect of colonial rule on state-building in Africa.

We also contribute to the literature on the salience of ethnic identity in national politics. Alesina and Reich (2013) develop a theoretical model of state-building in which the construction of national identity (or 'homogenisation of citizens') is endogenised. Citing several historical examples, Leeson (2005) argues that colonial rulers' segregation of local populations along tribal lines disrupted the interethnic cooperation that existed in pre-colonial Africa, thereby inhibiting the integration of tribes and the formation of shared national identity.[3] Eifert *et al.* (2010) report that ethnic identity becomes more salient in response to increases in competition for political control (as measured by proximity to election periods). Miguel (2004) compares post-independence outcomes in Kenya and Tanzania to show that government policies, such as public school curriculum and establishing a national language, can promote the formation of stronger national identification. We complement this literature by highlighting the role of colonial history for the salience of ethnic identification. More recently, Blouin and Mukand (2018) find that government propaganda was effective in encouraging greater interethnic trust and cooperation in Rwanda.

The rest of our article is organised as follows. The next Section provides a brief historical review of the British and French approaches to colonial rule. Thereafter, results on the strength of national identification are presented in Section 2. In Section 3, we report results on taxation, security and the power of chiefs. Section 4 concludes.

1. Historical Background

The central component of British colonial rule was 'native administration'. As outlined by Frederick D. Lugard – the renowned colonial official whose extensive engagement in Africa ranged from being a military commander in Nyasaland (1888) to governing Nigeria (1914–9) – the main tenet of native administration is that natives should be 'administered' by their native chiefs in accordance with their native customs and on their native land (Lugard, 1922). In practice, native administration was a fairly autonomous satellite institution in the hierarchy of colonial bureaucracy, which segregated locals along tribal affiliations and controlled them via locally powerful men (chiefs). Britain adopted this kind of indirect rule as a way of controlling the local population with minimal cost (Chanock, 1985; Okoye, 2017). The more direct rule imposed in Malawi and southern Nigeria during the early periods of colonial occupation (late 19th century) proved to be too costly to sustain when – following the Berlin conference of 1884–5 – the colonial territories expanded vastly to areas where the government had limited control.[4] Hence, native administration was imposed more or less throughout the territories in non-settler colonies, such as Uganda and western Africa. In colonies that contained a large number of settler populations, native

[3] See also Leeson (2008) for a formal model incorporating this idea of cooperation through informal institutions.

[4] For a formal model of indirect rule, see Padró I Miquel and Yared (2012).

administration was applied only to the locals within their reserves (Tinger, 1976; Chanock, 1985).

The first key feature of native administration is the role of chiefs, who wielded significant control over locals. Locally powerful men from the pre-colonial power structure (such as tribal chiefs) were co-opted into the colonial administration, often by threatened or actual military attacks (Crowder, 1964). In areas where identifiable tribes or tribal chiefs did not exist, the chiefs were 'invented' and imposed on the locals (Khapoya, 2010). Backed by British military support, chiefs ruled the local population and extracted taxes while being held accountable primarily to their colonial master (i.e. the district commissioner). The chief presided over all branches of the local government: he set the rules, acted as a judiciary and controlled the administration. He also appointed the subchiefs and village headmen.

The second main feature of native administration was segregating the local population along tribal lines, which served to undermine cooperation among various ethnic groups and so reduce the threat of a more unified and stronger resistance against colonial rule (Fanthorpe, 2001). Boundary demarcations of the native administration units assigned collective ownership of land to tribes, with the chief having the ultimate power to decide the allocation of plots among his subjects. Thus, native administration instituted a rigid association between tribal identity and access to basic resources, such as land and local government services.

Many scholars of African history argue that the natives' tribal identity was relatively less prominent in the French colonies (Whittlesey, 1937; Crowder, 1964; Miles, 1994; Mamdani, 1996). First, the areas marked by local administrative boundaries did not necessarily represent specific ethnic groups and often cut across pre-existing political boundaries. Thus, they did not prevent various ethnic groups from belonging to the same political unit. This approach was in contrast to British rule, under which colonies were essentially organised as autonomous collections of tribal authorities. Second, although the French also used chiefs in many instances, the power of those chiefs was often suppressed. French colonial law did not give chiefs the power to allocate land among natives. It also retained most of the judicial power with the resident commander (*le commandant de cercle*). Finally, chiefs were allowed relatively less autonomy in appointing subchiefs and village headmen. Devoid of legal power to allocate land, control the local judiciary and appoint subchiefs, the chief's primary role in French colonies was reduced to executing the commander's orders within an administrative bureaucracy. Hence, the colonial bureaucracy under French rule, as compared with the native administrations in the British colonies, was less dependent on the chief's patronage network.

The prominence of native administration in British colonies meant that political rights were tied to an individual's ethnic identity and not to citizenship, thus undermining the practical relevance of citizenship (Fanthorpe, 2001). The possibility of excluding others tended to induce competition for resources and political influence along ethnic lines and foster rivalries. Schildkrout (1970, pp. 374–5) notes that, in Ghana, the British demand for Kumasi residents to appoint their own tribal headmen intensified rivalries among the various ethnic groups (e.g. the Hausa, Yoruba and Mossi) as each group rallied for more influence through its own headman.

Such interethnic rivalries can have a long-term effect on nation-building. First, a sense of animosity and mistrust among ethnic groups could persist for an extended

period (Nunn and Wantchekon, 2011; Voigtländer and Voth, 2012; Rohner *et al.*, 2013). Furthermore, existing divisions could be exploited by successive generations of politicians through ethnic favouritism, reinforcing the initial cleavages. Finally, the continued prominence of tribal chiefs in post-colonial anglophone countries means that ethnic identity could remain an important political factor.

In addition to undermining the construction of shared national identity, the existence of powerful chiefs may also directly undermine state centralisation. Because the emergence of a strong central state is likely to threaten powerful local chiefs, they could have an incentive to use their power to keep the state weak (Acemoglu *et al.*, 2016).

2. Empirical Results: National Identity

To measure the strength of national identification, we construct a variable based on a survey question about the respondent's sense of national (relative to ethnic) identity. Respondents were asked to describe their sense of identity by choosing one of five options:

(1) only ethnic;
(2) more ethnic than national;
(3) equally ethnic and national;
(4) more national than ethnic; or
(5) only national.

Our outcome variable, national identity, is a binary index that equals 1 if the respondent chooses either option (4) or (5) – that is, if the respondent places more importance on national than on ethnic identity. Otherwise, national identity equals 0. We obtain similar results when using an alternative index that takes values ranging from 0 to 4, where higher values are assigned to statements corresponding to a greater salience of national identity. The descriptive statistics for national identity, and for all other variables to be used in our analysis, are presented in Table 1.

We present our results in three stages, each corresponding to subsamples from different geographic subunits. First, subsection 2.1 presents the preliminary results, using all observations in our sample, which consists of about 100,000 respondents. These observations are drawn from rounds 3–6 of the Afrobarometer surveys that covered 12 anglophone and nine francophone countries (see Figure 1).

Subsection 2.2 presents the RD analyses that focus on observations near the anglophone–francophone national borders of western African countries in our sample. Subsection 2.3 introduces additional controls in order to examine whether the results can be explained by differences in legal origins. Subsection 2.4 concludes this Section by presenting the RD results based on observations from Cameroon.

2.1. *Preliminary Results*

We consider a model given by the following regression equation:

$$Y_i = \alpha + \beta \times Anglophone_i + \mathbf{X}_i'\Gamma + \varepsilon_i,$$

where Y_i is the dependent variable and i indexes the respondent. $Anglophone_i$ is an indicator for whether the respondent is from an anglophone country: it equals 1 for

Table 1

Descriptive Statistics

	Observations		Mean		
	Anglo. (1)	Franco. (2)	Anglo. (3)	Franco. (4)	Survey rounds (5)
Main outcome variable					
National identity	68,807	30,036	0.42 (0.49)	0.55 (0.50)	3, 4, 5, 6
Outcome variables on taxation, security and chiefs' power					
Outcome variables from Afrobarometer surveys					
Compliance norm	39,270	19,433	0.51 (0.50)	0.58 (0.49)	5, 6
Evasion difficulty	35,970	18,131	0.79 (0.41)	0.80 (0.40)	5, 6
Extortion prevalence	19,097	8,948	0.13 (0.33)	0.04 (0.20)	5
Crime prevalence	55,564	25,390	0.78 (0.94)	0.57(0.78)	4, 5, 6
Chief contact	49,067	20,783	0.31 (0.46)	0.25 (0.43)	3, 4, 6
Outcome variables from UCDP and ACLED					
State violence (ACLED)	7,330	5,513	0.14 (0.35)	0.08 (0.27)	–
State violence (UCDP)	7,330	5,513	0.05 (0.21)	0.03(0.16)	–
Non-state violence (ACLED)	7,330	5,513	0.23(0.42)	0.09 (0.29)	–
Non-state violence (UCDP)	7,330	5,513	0.05 (0.23)	0.01(0.10)	–
One-sided violence (ACLED)	7,330	5,513	0.19 (0.39)	0.06 (0.24)	–
One-sided violence (UCDP)	7,330	5,513	0.06 (0.23)	0.02 (0.15)	–
Individual controls					
Urban	68,807	30,036	0.35 (0.48)	0.36 (0.48)	3, 4, 5, 6
Age	68,807	30,036	36.24 (14.59)	38.28 (14.51)	3, 4, 5, 6
Employment	68,807	30,036	0.40 (0.49)	0.27 (0.44)	3, 4, 5, 6
Male	68,807	30,036	0.50 (0.50)	0.50 (0.50)	3, 4, 5, 6
Country controls					
West Africa	68,807	30,036	0.26 (0.44)	0.85(0.36)	–
East Africa	68,807	30,036	0.33 (0.47)	0.15(0.36)	–
Former German colony	68,807	30,036	0.16 (0.36)	0.07 (0.25)	–
Landlocked	68,807	30,036	0.33 (0.47)	0.43(0.49)	–
Ethnicity and district controls					
No. of slaves exported (per km^2)	68,807	30,036	1.31 (14.59)	5.44 (11.91)	–
Cities in 1800	68,807	30,036	0.11 (0.31)	0.16 (0.37)	–
Railway	68,807	30,036	0.47 (0.50)	0.23 (0.42)	–
Explorer	68,807	30,036	0.56 (0.50)	0.40 (0.49)	–
Missionary stations (per km^2) ($\times$1,000)	68,808	30,036	0.30 (0.47)	0.12 (0.23)	–
Density of night-time light	68,807	30,036	0.50 (0.62)	0.37 (0.44)	–
Distance to coast (1,000 km)	68,807	30,036	0.52 (0.32)	0.39 (0.36)	–
Distance to capital (1,000 km)	68,807	30,036	0.29 (0.22)	0.27 (0.21)	–
Fractionalisation	68,807	30,036	0.12 (0.21)	0.12 (0.23)	3,4,5,6
Own ethnic share	68,807	30,036	0.88 (0.25)	0.88 (0.25)	3, 4, 5, 6
No. of countries	12	9	–	–	–

Notes. This table reports means and standard deviations of the variables by colonial status (anglophone *versus* francophone). Standard deviations are in parentheses. The control variables are either at individual, ethnicity, district or country levels. Outcome variables on political violence (namely, state, non-state and one-sided violence) are at the 0.25 $\times$ 0.25 degree grid-cell level. The remaining outcome variables are at individual level. The last column lists the survey rounds for variables from the Afrobarometer data.

anglophone respondents and 0 for francophones. Our coefficient of interest is β, which captures the difference between anglophone and francophone respondents with respect to the outcome variable. The vector $\mathbf{X}_i$ includes a set of controls; these

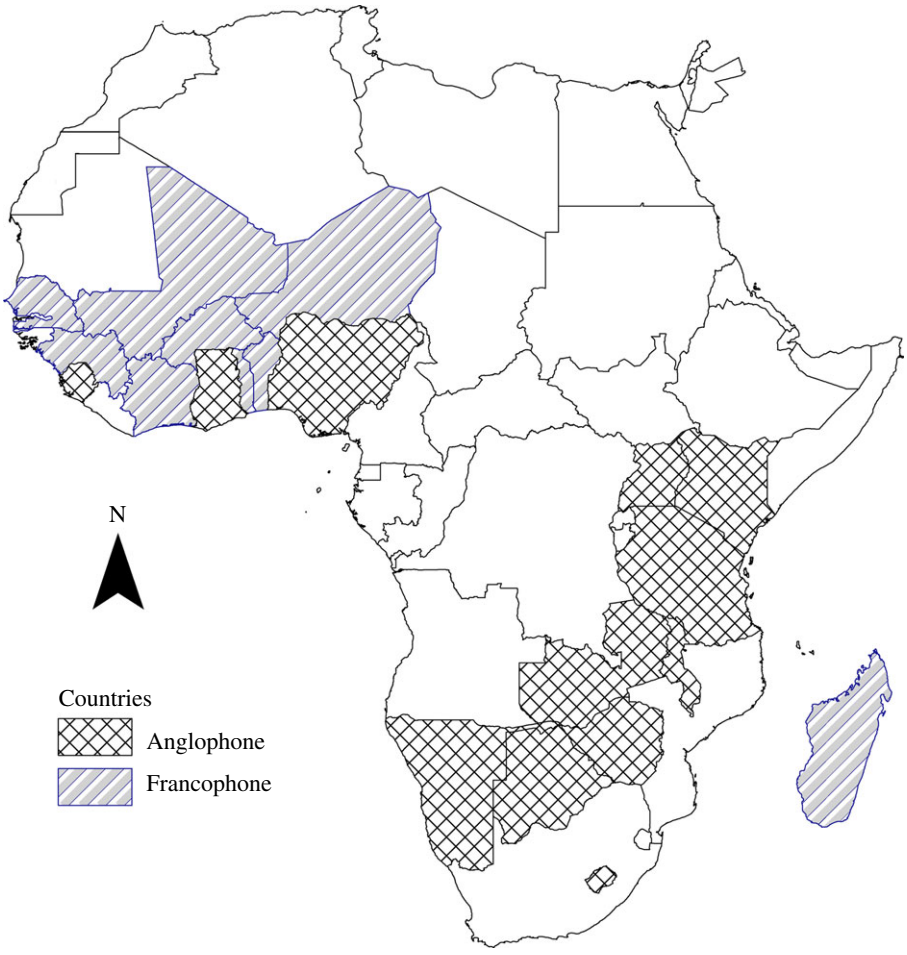

Fig. 1. *Anglophone and Francophone Countries in the Data Set*
Notes. Colour figure can be viewed at wileyonlinelibrary.com.

controls will be described later as they are introduced into the regression estimations.[5] Summary statistics are reported in Table 1 and a detailed description of our data sources for each variable is given in Appendix A.

The first row of Table 1 shows the means and standard deviations of national identity. We see that, compared with francophone respondents, the share of anglophone respondents who prioritise national identity is lower by 13 percentage points. That is, 55% of francophone respondents prioritise national identity whereas only 42% of anglophones do so. Table 2 presents the regression results, using all

[5] Non-linear probability models (logit or probit) yield qualitatively identical results. We report results from our linear model because it is more straightforward in terms of both estimation procedure and interpretation (e.g. estimated effects represent mean percentage differences between francophone and anglophone observations). The linear model is also less sensitive to distributional assumptions concerning the error terms, which is important given our use of several dummy controls (Angrist and Pischke, 2008).

Table 2

National Identity and Colonial Status

	(1)	(2)	(3)	(4)
Anglophone	−0.12**	−0.17***	−0.18***	−0.14***
	(0.05)	(0.05)	(0.05)	(0.04)
Observations	98,843	98,843	98,843	98,843
Within-country R^2	0.003	0.003	0.005	0.005
Overall R^2	0.022	0.050	0.055	0.063
Geographic controls	–	Yes	Yes	Yes
Former German colony	–	Yes	Yes	Yes
Individual controls	–	–	Yes	Yes
Ethnic controls	–	–	–	Yes
District controls	–	–	–	Yes

Notes. The dependent variable (national identity) measures the respondents' strength of national identification. *Anglophone* is a dummy for whether the respondent is from an anglophone country. All regressions include survey-round fixed effects. The geographic controls include indicators for region (western, southern and eastern Africa) and 'landlockedness'. Former German colony is a dummy for whether the country was colonised by Germany prior to the First World War. Individual-level controls account for age, age squared, education level, religion, asset ownership, gender, employment status and location (urban *versus* rural). Ethnicity-level controls account for urbanisation levels in 1800, pre-colonial judicial hierarchy, access to colonial rail network, pre-colonial contact with European explorers, missionary activity during colonial times, exposure to slave trade, density of night-time light, distance to the capital city and distance to the coast. District-level controls are the share of the population in own ethnic group and ethnic fractionalisation. Robust standard errors, two-way clustered at country and ethnicity level, are given in parentheses. **Significant at 5%, ***significant at 1%.

observations in our sample. We report robust standard errors clustered at both ethnicity and country levels (Cameron *et al.*, 2011).[6]

The controls include several variables that could affect state-building; therefore, they account for the possibility that the correlation between those variables and colonial status may confound our results. We include controls at national, district, ethnicity and individual levels. The subnational and individual controls have the advantage of capturing variations across regions and/or individuals. This advantage is especially important in Africa, where state capacity varies significantly across regions because the central states tend to have limited control over areas remotely located from capital cities.

In the first column, we report results with no controls (except fixed effects for survey rounds). Column (2) includes region indicators (eastern, western and southern Africa) as well as an indicator variable for whether the country is landlocked. To account for the possible effect of German occupation in some African countries, we include an indicator variable for whether a country was a former colony of Germany. One francophone country (Togo) and two anglophone countries (Namibia and mainland Tanzania) were German colonies prior to the First World War;[7] when Germany was defeated, they were transferred to France and Britain.

[6] The results remain the same when we cluster at district (instead of ethnicity) and country levels.

[7] In addition, two anglophone countries – Ghana and Nigeria – had small portions of land transferred from German ownership (British Togo joined Ghana, and part of the British Cameroon joined Nigeria). However, the major portion of these countries was under British rule and so they are not considered to be former German colonies.

The third column of Table 2 controls for several individual-levels, socio-economic characteristics of the respondents. These variables are all sourced from the Afrobarometer survey. They include: indicator variables for the location of respondents (urban *versus* rural) as well as their employment status (employed *versus* unemployed) and gender; nine indicators for education levels; controls for age and age squared; eight fixed effects for the respondents' religions; and three indicators for asset ownership.

Column (4) includes the remaining controls. These include a range of variables to account for historical, institutional, demographic and economic factors. In selecting these controls, we closely follow Nunn and Wantchekon (2011) and Nunn and Puga (2012). To account for pre-colonial legacies, we control for historical levels of the intensity of exposure to slave trade, urbanisation and complexity of institutions. The intensity of exposure to slave trade, which eroded trust levels (including interethnic trust), may affect state-building by intensifying conflict and hindering integration across ethnic groups (Nunn and Wantchekon, 2011; Fenske and Kala, 2017). This measure is constructed by dividing the total number of slaves exported from each ethnic group by the size of land area that is historically inhabited by the ethnic group (Nunn and Wantchekon, 2011). Ethnic homelands are defined according to Murdock's (1959) ethnolinguistic map. We use village-level geographic data on the residence of each respondent to project the locations of respondents on the ethhnolinguistic map.[8] As a further control for exposure to slave trade, we include the distance of each ethnic homeland from the nearest coast. The control for historical levels of urbanisation is an indicator variable for whether the respondent is located in an ethnic homeland that contained, in 1800, a city whose population was at least 20,000 (Chandler and Fox, 1974). This control is meant to account for the extent of pre-colonial economic development. Since the complexity of pre-colonial institutions is found to be correlated with contemporary development (Gennaioli and Rainer, 2007; Michalopoulos and Papaioannou, 2014), we include four dummies to control for the number of pre-colonial jurisdictional hierarchies in each ethnic group (Murdock, 1967).

We include two controls to account for colonial activities. The first one, an indicator variable for whether an ethnic homeland had a colonial railway station, is meant to account for colonial investments in infrastructure (Dell and Olken, 2017). Since missionary activities by Europeans – which tended to be more common in British colonies – may have lowered trust levels and weakened traditional institutions (Okoye, 2017), we control for the number of missionary stations per area of each ethnic homeland. Data on these controls are from Nunn and Wantchekon (2011).

In order to account for the potential effect of ethnic composition on interethnic relationships (Easterly and Levine, 1997; Alesina *et al.*, 1999; Alesina and La Ferrara, 2002), we control for ethnic fractionalisation in the respondent's district and the share of population in the district that is of the same ethnicity as the respondent. In constructing both variables, we follow Nunn and Wantchekon (2011) and use the sample of individuals in the Afrobarometer surveys.

Finally, we include two controls for the level of contemporary economic development in the historical homeland of each ethnic group. Economic development may

[8] We use geodata on Afrobarometer respondents from Knutsen *et al.* (2016) and AidData.

affect state capacity, as the size of the formal sector tends to increase with the level of economic development (Besley and Persson, 2011). Since reliable income data at sub-national levels are not available, we follow the recent literature and use the density of night-time light – based on satellite images – as a proxy for economic activity (Henderson *et al.*, 2012; Michalopoulos and Papaioannou, 2014; Pinkovskiy and Sala-i Martin, 2016). Following Michalopoulos and Papaioannou (2014), we construct a measure of light density per square kilometer for the period 2011–3 by averaging across pixels that lie within each ethnic group's historical homeland.[9] Since state capacity is likely to be lower in areas farther from the capital city, we control for the distance of each ethnic homeland from the capital.

According to our estimate in column (1) of Table 2, the coefficient for *Anglophone* is negative and statistically significant. The share of respondents who prioritise national identity in anglophone countries is lower by 12 percentage points, which reaffirms the mean difference between anglophone and francophone respondents reported in Table 1. This result remains significant when we incorporate the remaining controls in columns (2)–(4).

2.2. *Evidence from Regression Discontinuity*

Despite the inclusion of several controls, there may still be endogeneity concerns due to possible confounding factors that are difficult to control. This could, for instance, be the case if Britain's policy of adopting native administration may have led it to target regions that already had a strong sense of ethnic identity. On the other hand, France's lack of such a motive may have led it to focus on regions consisting of relatively homogeneous ethnic groups. If such a selection strategy were operative, then current differences (i.e. between anglophone and francophone countries) in the salience of ethnic identity may have existed prior to colonisation and thus would not reflect colonial legacy.[10] As a first step towards mitigating these endogeneity concerns, we undertake RD analysis on a limited set of respondents who reside near national borders between anglophone and francophone countries. The key assumption required to address the selection problem in the RD analysis is that, prior to colonisation, anglophone and francophone regions within the RD sample were not systematically different in terms of (un)observable factors that could have affected the strength of national identification.

There is little disagreement among scholars of African history that most national borders were drawn arbitrarily by colonisers.[11] The colonisation of Africa happened rapidly. The borders were drawn hastily in European capitals with little knowledge of local situations. As summarised in the much cited statement by Lord Salisbury (the then British Foreign Secretary, later Prime Minister) at the colonial powers' 1884–5 'carve-up' conference in Berlin:

[9] This 2011–3 period corresponds to the years during which round 5 of the Afrobarometer surveys was undertaken.

[10] However, Wesseling (1996, pp. 177–8) argues that the massive French occupation in western Africa was driven more by the navy's desire to redeem itself from past humiliation than by any bona fide strategic concerns.

[11] See Michalopoulos and Papaioannou (2016) for a detailed review of the literature and for evidence on the arbitrariness of African border demarcations by colonial powers.

> We have been engaged in drawing lines upon maps where no white man's feet have ever trod; we have been giving away mountains and rivers and lakes to each other, only hindered by the small impediment that we never knew exactly where the mountains and rivers and lakes were. (Muiu, 2010, p. 1)

As a result, the borders typically divided communities that belonged to relatively homogeneous groups that shared similar ethnicity, political organisation and agro-economic zones. As illustrated in Figure 2, the arbitrariness of African borders also stands out in our RD sample. This map projects Murdock's (1959) ethnolinguistic map on country borders in western Africa that are included in our RD analysis. The thickest lines show the borders between anglophone and francophone countries. Three of the countries along those borders are anglophone (Ghana, Nigeria and Sierra Leone) and the rest are francophone (Benin, Burkina Faso, Guinea, Ivory Coast, Niger and Togo). The highlighted portion of the map shows the historical homelands that were split into more than one country along the anglophone–francophone borders. Following Michalopoulos and Papaioannou (2016), we define 'split' groups as historical homelands for which at least 10% of their territories are found on both sides of a national border. A visual inspection of Figure 2 reveals that, with few exceptions, the

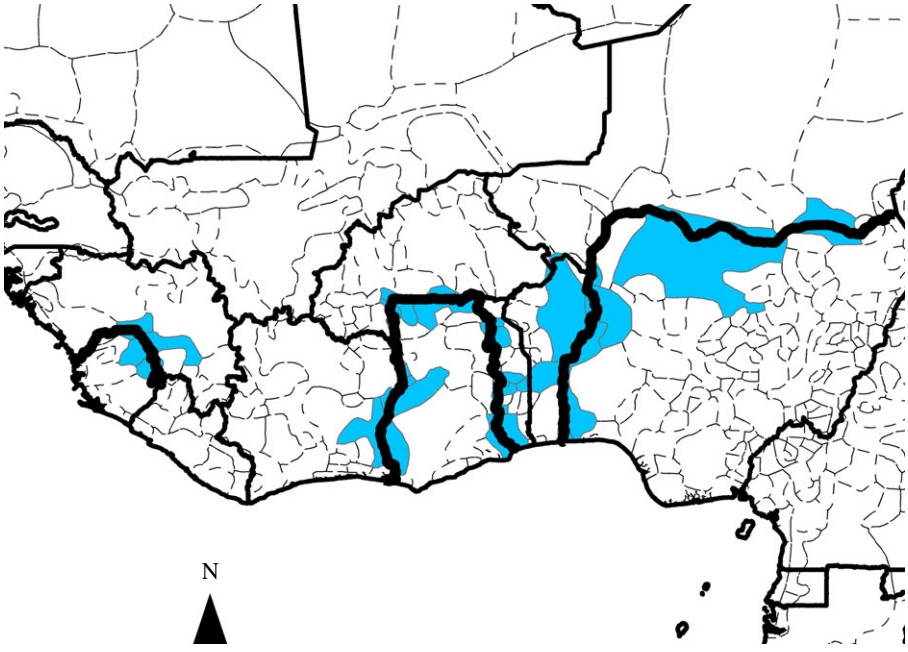

Fig. 2. *Regions for Regression Discontinuity Analysis*

Notes. The solid lines in this map represent national borders in western Africa, with the anglophone–francophone borders represented by the thickest lines. The thin broken lines mark the borders of ethnic groups' historical homelands. The shaded areas are historical homelands of ethnic groups that were split between anglophone and francophone countries. Colour figure can be viewed at wileyonlinelibrary.com.

borders cut through ethnic homelands – affirming that the national borders in our RD sample likewise reflect the largely arbitrary nature of most African borders.[12]

Of the 91 ethnic historical homelands in our RD sample, which covers the areas that lie within 100 kilometres of anglophone–francophone national borders, the majority (51 groups) are split between countries, suggesting that a significant portion of our RD regions come from communities that were unlikely to have systematic pre-colonial differences across national borders.[13] Comparing the 40 non-split groups in anglophone and francophone countries with respect to various observable pre-colonial characteristics – such as exposure to slave trade, urbanisation in 1800 and levels of complexity in pre-colonial political organisations – we find that the differences between those on francophone *versus* anglophone sides of the borders are statistically insignificant.

Table 3 presents the estimated results. As a benchmark comparison, we begin by reporting a regression result using all francophone and anglophone observations from western Africa; this result is presented in the first column. We report the result with no controls to provide a transparent comparison of the mean difference between all francophone and anglophone respondents in western Africa. However, including the additional controls does not change the result. There are a total of

Table 3

National Identity and Colonial Status: RD Results for Western Africa

	(1)	(2)	(3)	(4)	(5)	(6)
Anglophone	−0.15***	−0.20***	−0.20***	−0.22***	−0.15**	−0.14***
	(0.06)	(0.05)	(0.05)	(0.05)	(0.06)	(0.05)
Observations	43,013	12,748	12,748	12,748	12,748	12,748
R^2	0.045	0.075	0.076	0.084	0.097	0.102
Distance to border	–	–	Yes	Yes	Yes	Yes
Individual controls	–	–	–	Yes	Yes	Yes
Ethnicity controls	–	–	–	–	Yes	Yes
District controls	–	–	–	–	Yes	Yes
Legal origin controls	–	–	–	–	–	Yes

Notes. Column (1) includes all respondents in western Africa. In columns (2)–(6), the observations are drawn from respondents who reside within 100 kilometres of anglophone–francophone national borders in western Africa (i.e. the RD sample). Distance to border is the distance to either side of the nearest anglophone–francophone border. All regressions include survey-round fixed effects. Legal origin controls includes three dummies: respondents' trust in the judiciary, respondents' attitudes towards political freedom and respondents' attitudes towards press freedom. See Table 2 for descriptions of the remaining controls. Robust standard errors, two-way clustered at the country and ethnicity levels, are given in parentheses. **Significant at 5%, *** significant at 1%.

[12] If we instead define split groups as ethnic homelands where at least 5% (rather than 10%) of the historical homelands are found on both sides of a national border, then even more portions of the national borders will cut through ethnic homelands (and are thus rendered even more arbitrary).

[13] We consider a historical homeland to be part of our RD sample if its geographic boundary overlaps the RD area.

43,013 observations from western Africa, which account for 44% of all the observations in our data set. Columns (2)–(5) present regression results using only the observations in our RD sample (i.e. observations within 100 kilometres of an anglophone–francophone national border).[14] This RD sample includes nearly 13,000 observations, or about 30% of all observations in western Africa (approximately 13% of the entire sample's observations). Column (2) in the table includes no controls except for survey-round fixed effects and national border fixed effects. Column (3) controls for distance to the anglophone–francophone national borders (on either side). Columns (4) and (5) include, respectively, the individual-level controls and the remaining controls; see Table 2. We discuss column (6) in subsection 2.3. All coefficients estimated from these regressions are significantly negative, which confirms the previous pattern that the strength of national identification tends to be lower among anglophone respondents.

Figure 3 offers a visual display of the strength of national identification by distance to border. The fitted lines represent the correlation between distance to national borders and national identity along with their 95% confidence intervals (from an OLS regression of national identity on distance). The dots mark local averages (in 10-kilometres bins) of national identity and represent the share of respondents who identify more with their country than with their ethnic group. The advantage of an RD plot is that it provides a more transparent characterisation of the data. These patterns are consistent with the findings reported in Table 3: on the anglophone side of the borders (to the right of the *x*-axis centre point), the level of national identification tends to be lower.

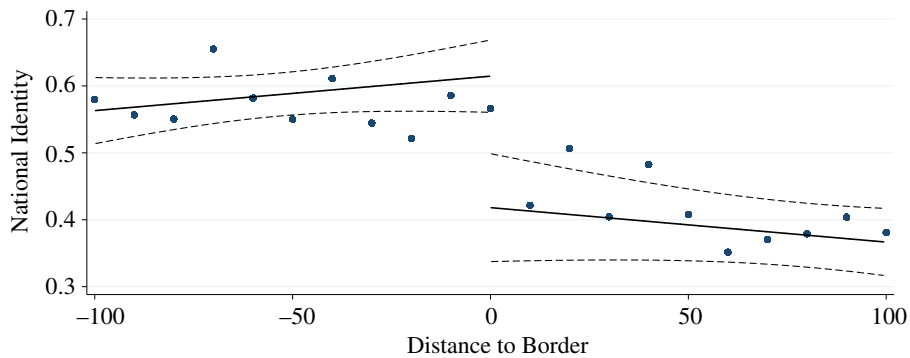

Fig. 3. *National Identity in Western Africa, by Distance to Anglophone–Francophone Border*
Notes. The figure shows, by distance (in kilometres) to the border, the share of respondents who prioritise national identity over ethnic identity. The distance from the francophone–anglophone border increases as we move away from the centre point (0) on the *x*-axis. Negative (resp. positive) values represent distance, from the border, into francophone (resp. anglophone) territories. Colour figure can be viewed at wileyonlinelibrary.com.

[14] The results are not sensitive to reasonable alternations of the cutoff (e.g. 60, 80 or 120 kilometres). This insensitivity is intuitive in light of the RD plots, which tend to show that the significant (resp., insignificant) results display (resp., do not display) visible shifts at the border.

2.3. *Accounting for Legal Origin*

As discussed in the Introduction, the literature on colonial legacy and African history suggests two possible factors – namely, differences in approaches to colonial rule and legal origin – that may associate the coloniser's identity with state-building. Directly isolating the effects of these factors is not feasible because our independent variable (i.e. the identity of the coloniser) does not distinguish between the two effects. Nevertheless, we examine this question by controlling for variables that are reasonably presumed to be associated with legal origins. If the results remain the same when we control for these variables, this provides suggestive evidence that the effects are less likely to be driven by differences in legal origin.

The literature on colonial legacies emphasises that the British legal origin tends to be associated with greater judicial independence than does the French (La Porta *et al.*, 2004). This judicial constraint on the executive's power could limit the latter's ability to control society and thus to strengthen the central state. The transmission of both institutions' features – including legal codes and such cultural values as attitudes towards political freedom – from colonisers to colonies have been posited as channels through which legal origin may affect judicial independence (La Porta *et al.*, 2008). We therefore use three variables from the Afrobarometer data to control for potential differences concerning the judiciary and attitudes towards political freedom.

The first variable measures the level of respondents' trust in 'the courts of law'. Respondents were asked to choose one of the following options to express their level of trust in the courts:

(1) not at all;
(2) just a little;
(3) somewhat; and
(4) a lot.

Using this variable, we construct a binary control that indicates whether the respondent chose one of the last two options or rather one of the first two. We also checked the robustness of our results to alternative ways of defining the controls (e.g. fixed effects for each type of response); we obtain similar results.

The other two variables measure respondents' attitudes about political freedom. One of them is based on a survey question that asked respondents to give their view of these two statements: (*A*) 'We should be able to join any organisation, whether or not the government approves of it'; and (*B*) 'Government should be able to ban any organisation that goes against its policies'. The other variable is constructed from respondents' answers to questions probing their views about press freedom. They were asked to describe their attitude towards the following two statements: (*A*) 'The media should have the right to publish any views and ideas without government control'; and (*B*) 'The government should have the right to prevent the media from publishing things that it considers harmful to society'. To each of these two questions, the respondents answered by choosing one of five options:

(1) agree very strongly with Statement A;
(2) agree with Statement A;
(3) agree with Statement B;

(4) agree very strongly with Statement B; or
(5) agree with neither statement.

Our indicators for respondents' attitudes about freedom include two binary variables, one for each question, indicating whether they chose options (1) or (2) – that is, agreeing with statements favouring greater freedom – or rather options (3), (4) or (5).

Column (6) of Table 3 reports estimation results (for the RD sample) when we include the controls for trust in courts of law and attitudes towards political freedom. The coefficient for *Anglophone* remains essentially the same, providing no indication that differences in legal origins – as measured by trust in courts and attitudes towards political freedom – are driving the results.

2.4. *Evidence from Cameroon*

Cameroon was first colonised by Germany in the mid-1880s. Following Germany's defeat in the First World War, Britain and France each controlled portions of Cameroon and split it into two parts in 1919. Sections of south-western and north-western Cameroon (bordering Nigeria) became part of the British colony while the rest was colonised by France. After independence, the two parts of Cameroon (except for the north-western part that joined Nigeria) reunited in 1961 to form Cameroon as it is currently configured. After this reunification, Cameroon endured the strongly authoritarian rule of President Ahmadu Ahidjo, whose Cameroon National Union was the sole legal party during much of his rule. The Cameroon state's authoritarian nature has essentially continued until today under President Paul Biya, who succeeded Ahidjo in 1982. Freedom House has classified Cameroon as 'Not Free' ever since 1999, the first year for which data were available.[15]

The Cameroon case offers a useful setting for RD analysis. First, the variation in colonial rule comes from within Cameroon, allowing us to hold country-level differences constant.[16] Second, the colonial borders separating anglophone and francophone parts appear to be quite arbitrary. Like most colonial borders in Africa, Cameroon was partitioned based on hastily arranged agreements.[17] Emphasising this arbitrariness in the demarcations, Lee and Schultz (2012, p. 372) observe that 'the most notable feature of the colonial border was the degree to which it cut across existing ethnic and religious boundaries'. This feature is evident also in Figure 4, where the map of Cameroon is projected onto Murdock's (1959) ethnolinguistic map. The thick broken line (within the outlined western territory) represents the anglophone–francophone border in Cameroon and the highlighted regions represent historical homelands of ethnic groups that were split between francophone and anglophone Cameroon. We see that almost the entire anglophone–francophone border cuts through historical homelands of ethnic groups. Third, there is a broad consensus in the historical literature that the distinction between the French and

[15] Polity IV has likewise assigned negative scores in each of the years since 1960. Both Papaioannou and Siourounis (2008) and Acemoglu *et al.* (2018) categorise Cameroon as a non-democracy.
[16] According to La Porta *et al.* (1999), Cameroon has a civil law legal tradition.
[17] The border was established in March 1916 (Elango, 2014).

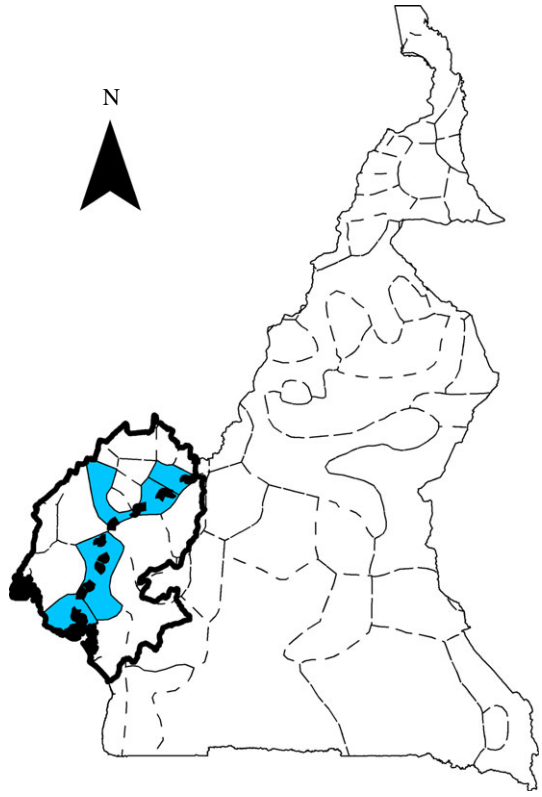

Fig. 4. *Map of Cameroon*

Notes. The area circumscribed by the thick solid line represents the region from which observations for our RD analyses were drawn. The heavy broken line (within that region) marks the anglophone–francophone border, where the region west (resp. east) of that line is anglophone (resp. francophone). As before, the thinnest lines indicate borders of ethnic groups' historical homelands; the shaded areas are historical homelands of ethnic groups that were split between anglophone and francophone Cameroon. Colour figure can be viewed at wileyonlinelibrary.com.

British approaches to colonial rule in Cameroon is very similar to the broader pattern observed in western Africa (see Section 1). In effect, the British ruled Cameroon as an extension of Nigeria and instituted native administration. Comparing the British and French colonial rule in Cameroon, Chiabi (1997, p. 27) notes that the 'British had to determine who chiefs were and which areas constituted their jurisdictions. This ... occupied the British for a greater part of the interwar period. Meanwhile, the French took a different approach. Assessment reports to restructure the country along the lines of chiefdoms was not necessary'. As in most of their colonies in western Africa, the French undermined the chiefs' autonomy, 'treating them as petty bureaucrats who can be hired and fired at will' (Lee and Schultz, 2012, p. 375). The legacy of this distinction was noticed soon after independence, when anglophone Cameroon 'maintained their House of Chiefs. Their counterparts in the French tradition saw no need for a House of Chiefs and abolished it in 1971' (Chiabi, 1997, p. 22).

Table 4

National Identity and Colonial Status: RD Results for Cameroon

	(1)	(2)	(3)	(4)	(5)	(6)
Anglophone	−0.40***	−0.46***	−0.45***	−0.43***	−0.36***	−0.32***
	(0.03)	(0.03)	(0.03)	(0.04)	(0.06)	(0.06)
Observations	2,230	880	880	880	880	880
R^2	0.087	0.213	0.218	0.251	0.296	0.324
Distance to border	–	–	Yes	Yes	Yes	Yes
Individual controls	–	–	–	Yes	Yes	Yes
Ethnicity controls	–	–	–	–	Yes	Yes
District controls	–	–	–	–	Yes	Yes
Legal origin controls	–	–	–	–	–	Yes

Notes. Column (1) includes all respondents in Cameroon. In columns (2)–(6), the observations are drawn from the administrative regions near the anglophone–francophone border in Cameroon (see Figure 4). Distance to border is the distance to either side of the nearest anglophone–francophone border within Cameroon. All regressions include survey-round fixed effects. Legal origin controls includes three dummies: respondents' trust in the judiciary, respondents' attitudes towards political freedom and respondents' attitudes towards press freedom. See Table 2 for descriptions of the remaining controls. Robust standard errors, clustered at the ethnicity level, are given in parentheses. *Significant at 10%, **significant at 5%, ***significant at 1%.

The data are drawn from the last two rounds (i.e. rounds 5 and 6) of the Afrobarometer surveys, which included Cameroon. The country has 10 administrative regions; of these, four are contiguous with the anglophone–francophone border. In Figure 4, the western part of the focal area includes these four regions and the observations from those regions constitute the sample used for our RD analysis.[18]

The RD estimates using the Cameroon data are reported in Table 4. Column (1) presents a benchmark comparison from the sample consisting of all respondents in Cameroon, and columns (2)–(6) present results from the RD sample. Column (2) reports the estimated results in which we include no controls; the controls listed in the table are progressively added in the subsequent columns. Results from the Cameroon sample are similar to our previous results: the sense of national identity is significantly lower among anglophone respondents. The RD plot for the Cameroon sample is displayed in Figure 5, where again the dots mark local averages (in 10-kilometre bins) of national identity. This RD plot, too, indicates that the strength of national identification is lower among anglophone respondents.

3. Additional Results: Taxation, Security and the Power of Chiefs

This Section presents the empirical evidence on indicators of state capacity that are related to taxation, security and the power of chiefs. We first present results for outcome variables that are sourced from the Afrobarometer data set. These variables provide information on the experiences and attitudes of respondents regarding

[18] We include all observations within those regions because Cameroon's anglophone part is quite small; the maximum distance from the anglophone–francophone border (before it crosses into Nigeria) is less than 100 kilometres.

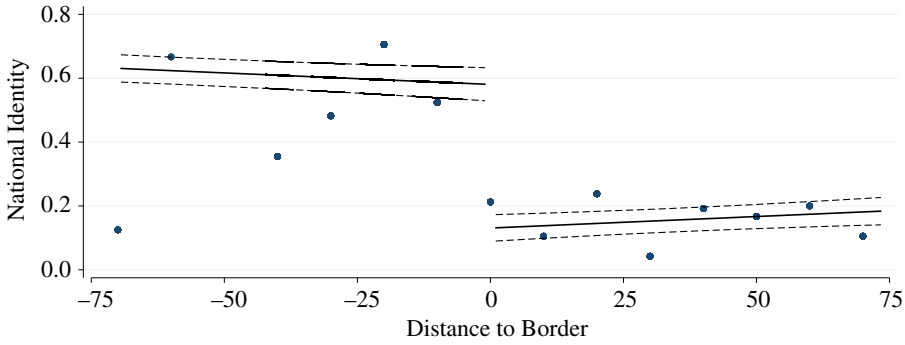

Fig. 5. *National Identity in Cameroon, by Distance to Anglophone–Francophone Border*
Notes. The figure shows, by distance (in kilometres) to the border, the share of respondents who prioritise national identity over ethnic identity. The distance from the francophone–anglophone border increases as we move away from the centre point (0) on the *x*-axis. Negative (resp. positive) values represent distance, from the border, into francophone (resp. anglophone) territories. Colour figure can be viewed at wileyonlinelibrary.com.

taxation, safety and the role of chiefs. We then present results for security indicators constructed by using additional data sets that provide geocoded data on incidents of armed conflict. The descriptive statistics for these outcome variables are presented in Table 1.

For all outcome variables, we report results for the whole sample in addition to RD results for observations near the anglophone–francophone national borders in western Africa. Since conflicts tend to be rare events, conflict data do not provide sufficient variation to undertake RD analysis within Cameroon.[19] Hence, RD results from Cameroon are limited to the outcome variables that we source from the Afrobarometer data set.

3.1. *Results from Afrobarometer Data*

3.1.1. *Outcome variables*

Taxation. We consider two outcome variables on taxation, compliance norm and evasion difficulty. The data used to construct each variable are sourced from rounds 5 and 6 of the Afrobarometer surveys. Compliance norm measures respondents' moral views about tax evasion; it is therefore viewed as being indicative of the strength of social norms against tax evasion. Respondents describe their views regarding tax evasion by choosing one of three ranked statements: tax evasion is:

(1) not wrong at all;
(2) wrong but understandable; or
(3) wrong and punishable.

[19] Except for some positive values for *one-sided violence* from UCDP, both ACLED and UCDP report zero conflict incidents in Cameroon.

We construct compliance norm as a binary index, which is set equal to 1 if the respondent chooses statement (3) and is set to 0 otherwise.[20]

Evasion difficulty is meant to measure the state's ability, as perceived by survey respondents, to enforce tax compliance. Based on their experiences with government services, respondents were asked to describe evading taxes as being (1) very easy, (2) easy, (3) difficult or (4) very difficult. We set evasion difficulty to 1 if the respondent chooses response (3) or (4) and set it to 0 otherwise.

Security. We consider two indicators as proxies for security: extortion prevalence and crime prevalence. The former is an indicator for the extent to which the state protects its citizens from extortion by non-state actors. Respondents were asked 'how often powerful groups other than the government, such as criminals or gangs, forced people in their community to pay them in return for protecting them, their property or their businesses'. Respondents answered by choosing one of four options:

(1) never;
(2) only once;
(3) a few times; or
(4) often.

We set extortion prevalence to 0 if the respondent replied 'never' but to 1 for all other responses. Data on this variable are from round 5 of the survey.

Crime prevalence is constructed using respondents' descriptions of their experience (over the 12 months preceding the survey date) with the following three incidents:

(1) they feared crime in their home;
(2) something was stolen from their house; and
(3) they were attacked.

Crime prevalence assumes values ranging from 0 to 3, corresponding to the number of incidents regarding which respondents answered in the affirmative. Crime prevalence equals 3 if the respondent affirms having experienced all three incidents, equals 2 if two of them are reported and so forth. Data on this variable are from rounds 4–6 of the survey.

Power of chiefs. Respondents were asked how frequently they had contacted local chiefs during the 12 months preceding the survey date. As a measure of chiefs' power, we construct the binary index chief contact, which is set equal to 1 if the respondent reports contacting a chief at least once; otherwise, the variable is set equal to 0. Data for this indicator are from rounds 3, 4 and 6 of the Afrobarometer survey.

3.1.2. *Results*

Table 5 presents the estimates using all observations in our sample. The order in which controls are added does not affect the results; therefore, we report only the results with the full set of controls. The coefficient for compliance norm is not significant. All the other coefficients are significant and they indicate a weaker state capacity among

[20] Most of the outcome variables are binary indicators. However, alternative indexes that allow for more than two values – and with respect to which we apply ordered logit or probit models – yield qualitatively similar results.

Table 5

Taxation, Security and the Power of Chiefs – Results from All Observations

	Compliance norm (1)	Evasion difficulty (2)	Extortion prevalence (3)	Crime prevalence (4)	Chief contact (5)
Anglophone	−0.02	−0.04***	0.12***	0.16***	0.10***
	(0.06)	(0.02)	(0.04)	(0.06)	(0.04)
Observations	58,703	54,101	28,045	80,954	69,850
Within-country R^2	0.014	0.003	0.005	0.010	0.074
Overall R^2	0.028	0.019	0.030	0.032	0.111

Notes. The dependent variables are listed at the top of each column. All regressions include survey-round fixed effects, geographic controls, the indicator for a German colony and controls at individual, ethnicity and district levels (see Table 2 for descriptions of these controls). Standard errors, two-way clustered at the ethnicity and country levels, are given in parentheses. ***Significant at 1%.

anglophones. Compared to francophone respondents, anglophone citizens are more likely to report that tax evasion is easier, extortion activities are prevalent, they experience crime incidents and they contact chiefs.

Table 6 presents estimation results using observations from western Africa. In panel (*a*), we include all of these observations; in panel (*b*), we use only those observations from the RD region (i.e. observations from areas within 100 kilometres of the anglophone–francophone national borders). The coefficients for compliance norm and crime prevalence are insignificant in both panels. The remaining coefficients – for evasion difficulty, extortion prevalence, and chief contact – are all significant. So except for crime prevalence, the results reported in both panels are in line with our previous findings estimated for the entire data set (see Table 5).

Table 6

Taxation, Security, and the Power of Chiefs: RD Results for Western Africa

	Compliance norm (1)	Evasion difficulty (2)	Extortion prevalence (3)	Crime prevalence (4)	Chief contact (5)
Panel (*a*): all observations in West Africa					
Anglophone	−0.02	−0.08***	0.09***	0.06	0.09***
	(0.07)	(0.02)	(0.03)	(0.06)	(0.04)
Observations	28,214	25,937	13,316	36,398	29,440
R^2	0.024	0.017	0.075	0.041	0.104
Panel (*b*): RD sample					
Anglophone	−0.04	−0.10***	0.08***	0.00	0.10***
	(0.08)	(0.03)	(0.03)	(0.06)	(0.03)
Observations	10,234	9,372	4,730	11,726	7,900
R^2	0.044	0.024	0.076	0.040	0.139

Notes. The outcome variables are listed at the top of each column. In panel (*b*), the observations are drawn from respondents residing within 100 kilometres of borders between anglophone and francophone countries in western Africa. All regressions include survey-round fixed effects and the remaining controls at individual, ethnicity and district levels (see Table 2). The RD regressions (panel (*b*)) include the RD distance to the border (see Table 3) and border fixed effects. Robust standard errors, two-way clustered at the ethnicity and country levels, are given in parentheses. ***Significant at 1%.

The corresponding RD plots are presented in Figure B1 (see Appendix). Compliance norm and crime prevalence do not appear to have a significant discontinuity at the border, reaffirming the insignificant coefficients in Table 6. For the other variables, the directions of discontinuities in the RD plots are also consistent with the reported coefficients.

Table 7 presents the RD results from the Cameroon data – that is, the RD observations from the four administrative regions bordering the francophone–anglophone border in Cameroon (see subsection 2.4). The coefficients for compliance norm and extortion prevalence retain their earlier patterns – the (former) latter continues to be (in) significant. The coefficients for evasion difficulty and chief contact now lose significance while the coefficient for crime prevalence becomes significant. The RD plots are presented in Figure B2 (see Appendix). The discontinuity patterns displayed in that figure appear to be consistent with the coefficients estimated in Table 7. Except for extortion prevalence and crime prevalence, which are found to be significant in Table 7, the other variables do not show discernible discontinuities at the border.

Overall, these findings suggest weaker state capacity among anglophones. Given the relatively large number of outcome variables we examine, it is unsurprising that some of the estimated relationships between colonial status and these outcome variables are insignificant. Moreover, our indicators are bound to be imperfect owing to the inherent difficulty of measuring state capacity. The more important pattern, however, is that all of the significant coefficients suggest a lower state capacity among anglophones (i.e. weaker tax enforcement, stronger power of chiefs and less security).

3.2. *Results from Conflict Data*

3.2.1. *Outcome variables*

The incapacity of weak states to contain armed conflicts often poses a significant security challenge. Therefore, we examine the prevalence of armed conflicts as an additional outcome. We use two data sources to construct conflict indicators. The first one is the Uppsala Conflict Data Program (UCDP) Georeferenced Events Dataset

Table 7

Taxation, Security and the Power of Chiefs: RD Results for Cameroon

	Compliance norm (1)	Evasion difficulty (2)	Extortion prevalence (3)	Crime prevalence (4)	Chief contact (5)
Anglophone	0.02	0.02	0.17**	0.31**	−0.00
	(0.06)	(0.05)	(0.08)	(0.13)	(0.10)
Observations	885	767	446	914	445
R^2	0.098	0.052	0.113	0.066	0.201

Notes. The outcome variables are listed at the top of each column. The observations are drawn from administrative regions near the anglophone–francophone border in Cameroon (see Figure 4). All regressions include survey-round fixed effects, the RD distance control (see Table 3) and the remaining controls at individual, ethnicity and district levels (see Table 2). Robust standard errors, clustered at the ethnicity level, are given in parentheses. **Significant at 5%.

Version 17.1, which reports conflict events along with information about the date and geolocation (latitude and longitude) of the events (Sundberg and Melander, 2013; Croicu and Sundberg, 2017). The most recent version of this data set covers the period 1989–2016. Using the information on the longitude and latitude of each conflict event, we aggregate the conflict data into 0.25 × 0.25 degree cells (approximately 28 kilometres^2) and construct conflict indicators at the grid-cell level.[21] There are 12,843 such grid cells in all of the francophone and anglophone countries in our sample (5,513 in the former and 7,330 in the latter). We then construct indicators for incidence of conflict events in each grid cell. Our conflict variable (defined at the grid-cell level) is a dummy indicator set equal to 1 if a conflict event occurred in the grid cell during the 1989–2016 sample period (and set to 0 otherwise).[22]

The data set also provides information on characteristics of the actors on both sides of the conflict, such as whether the conflict was between non-state actors (e.g. rebel militias) or whether it involved the state. We use this information to construct three conflict variables that vary by type of conflict actors: state violence, non-state violence and one-sided violence. One-sided violence is a dummy variable set equal to 1 if there was a conflict event in which an armed group attacked unarmed civilians. State violence and non-state violence represent conflict events in which both sides were armed. We set state violence to 1 if there was a conflict event involving the state (and to 0 otherwise); non-state violence is set to 1 if there was a conflict in which the actors on both sides were non-state groups.

As a robustness check, we also construct these three indicators using the data provided by the Armed Conflict Location Events Dataset (ACLED) Version 7 (Raleigh *et al.*, 2010; ACLED, 2017). One important difference between the two data sets is that UCDP includes conflict incidents that result in at least one fatality whereas ACLED does not exclude non-fatal events (such as injuries) from its domain. Hence, the number of conflict events per period tends to be larger in ACLED owing to its wider coverage. The most recent version of ACLED covers the period 1997–2016.[23]

3.2.2. *Results*

Table 8 reports regression results on conflict outcomes. Since all of our controls except the individual-level ones are location-level variables (e.g. ethnicity-level controls), we

[21] There is no universally accepted rule on the choice of grid-cell dimensions. For example, Berman *et al.* (2017), in their study of conflict using the same data sets, aggregate into (0.5 × 0.5) degree cells. We thus checked robustness of our results by aggregating the data into 0.5 × 0.5 degree cells. We report the results using 0.25 × 0.25 degree cells because they deliver a more accurate representation of distance from the borders for our RD analysis.

[22] As a robustness check, instead of a dummy for whether any conflict occurred, we used the alternative outcome variables of:

(*i*) the number of conflict events in each cell; and
(*ii*) the number of years with at least one conflict event.

Our results remain the same.

[23] See Eck (2012) for a detailed comparison of the two data sets. Whereas UCDP explicitly categorises events into the three categories (state, non-state and one-sided violence), ACLED does not directly classify events in that manner. Instead, it provides data on the types of actors involved, which we use to distinguish between state and non-state violence.

Table 8

Colonial Status and Conflict

	State violence		Non-state violence		One-sided violence	
	UCDP (1)	ACLED (2)	UCDP (3)	ACLED (4)	UCDP (5)	ACLED (6)
Panel (*a*): all observations						
Anglophone	0.11**	0.09**	0.11***	0.21***	0.10*	0.21***
	(0.05)	(0.04)	(0.02)	(0.05)	(0.05)	(0.06)
N = 12,843						
Within-country R^2	0.024	0.055	0.014	0.050	0.021	0.051
Overall R^2	0.081	0.139	0.123	0.209	0.084	0.197
Panel (*b*): western Africa						
Anglophone	0.12***	0.11**	0.13***	0.24***	0.10**	0.24***
	(0.05)	(0.05)	(0.02)	(0.05)	(0.05)	(0.06)
N = 6,193						
Overall R^2	0.082	0.140	0.148	0.255	0.107	0.241
Panel (*c*): RD sample						
Anglophone	0.14**	0.04	0.06***	0.23***	0.09	0.23***
	(0.06)	(0.04)	(0.01)	(0.06)	(0.07)	(0.05)
N = 808						
Overall R^2	0.326	0.085	0.101	0.227	0.379	0.290

Notes. The units of observations are 0.25 × 0.25 degree cells. *Anglophone* is an indicator variable for whether the cell lies in an anglophone territory. The dependent variables, listed at the top of each column, are constructed from two different data sets (UCDP and ACLED); these variables are indicators for whether or not a particular type of conflict (state violence, non-state violence or one-sided violence) was observed in each cell over the sample period (1989–2016 for UCDP, 1997–2016 for ACLED). Results are reported for three samples. Panel (*a*) includes all cells, and panel (*b*) includes just the cells in western Africa. All of the location-level controls (e.g. ethnicity-level controls; see Table 2) are included by assigning to each grid cell the values of the geographic unit to which that cell belongs. Distance controls (distance to the capital city and to the coast) are reconstructed at the grid level. Panel (*c*) reports RD results using cells within 100 kilometres of the anglophone–francophone borders in western Africa. The RD results include additional controls for distance to the nearest border as well as border fixed effects. Robust standard errors, clustered at the ethnicity and country levels, are given in parentheses. *Significant at 10%, **significant at 5%, ***significant at 1%.

generate the same set of controls for the conflict regressions by assigning to each grid cell the values of the geographic unit to which the grid cell belongs.[24] However, distance controls (i.e. distances to the capital city, the nearest coast and the border) are reconstructed at the grid level. All of these controls are included in the regressions. The results are not sensitive to omitting the controls (or subsets of them). Standard errors are clustered at both ethnicity and country levels.

In panel (*a*) of the Table, we report the results using all observations; that is, all of the grid cells in anglophone and francophone countries are included. Panel (*b*) includes only the countries from western Africa, which account for nearly half of the total observations. Finally, panel (*c*) presents the RD results, for which the sample observations include only those grid cells whose centroids lie within 100 kilometres of

[24] A grid cell belongs to a geographic unit (e.g. ethnic homeland or country) if the cell's centroid lies within the unit's geographic boundary.

the anglophone–francophone national borders in western Africa. Figure B3 presents the RD plots (see Appendix).

The results from all subsamples show that conflict events are more likely to occur in anglophone regions. The discontinuities revealed by the RD plots are in line with the estimated coefficients. Thus, the results on armed conflicts also suggest weaker state capacity among anglophones.

4. Conclusion

Building an effective state remains a major challenge for many developing countries. The literature on colonialism and African history suggests two main reasons why the legacy of British colonial rule (as compared with French rule) may contribute to weak state capacity. First, Britain adopted a system of decentralised rule that empowered chiefs over the local population and instituted a rigid association between an individual's ethnic identity and access to basic resources (e.g. land and local government services). Neither the salience of ethnic identity nor the power of traditional chiefs were as crucial under French colonial rule. Second, the French legal system is argued to concentrate more political power in the hands of the central state.

Consistent with this hypothesis, we find a negative relationship between British rule and the strength of national identification. Citizens of anglophone (as compared with francophone) countries report a weaker sense of national identity than of ethnic identity. This finding holds in the sample of all observations in our data as well as from the RD analysis focusing on observations near the anglophone–francophone borders, both across countries and within Cameroon.

We also explore the empirical patterns for various indicators related to taxation, security and the power of traditional chiefs. All the significant coefficients on these outcomes indicate lower state capacity among anglophones. Thus, the broad pattern from these results is also one that associates the legacy of British rule with weaker state capacity.

This evidence highlights the legacy of colonial rule on state building.

Appendix A. Variables and Data Sources

A.1. *Afrobarometer Variables*

All of the Afrobarometer data are downloaded from the official Afrobarometer website: http://www.afrobarometer.org/data/merged-data.

National identity. An individual-level binary index indicating respondents' attitudes towards national *versus* ethnic identity; see Section 2. Survey questions: Q82 from round 3, Q83 from round 4, Q85B from round 5, and Q88B from round 6.

Compliance norm. An individual-level binary index reflecting respondents' views regarding tax evasion; see Section 3. Survey questions: Q76B from round 5 and Q75B from round 6.

Evasion difficulty. An individual-level binary index that measures respondents' views about the difficulty of evading taxes; see Section 3. Survey questions: Q75C from rounds 5 and 6.

Extortion prevalence. An individual-level binary index, indicating the prevalence of extortion activity by non-state actors; see Section 3. Survey question: Q74 from round 5.

Crime prevalence. An individual-level count variable that measures respondents' experience with crime incidents; see Section 3. Survey questions: Q9A-C from round 4, Q9B and Q10A-B from round 5 and Q10B and Q11A-B from round 6.

Chief contact. An individual-level binary index measuring how frequently the respondents contacted their local chiefs; see Section 3. Survey questions: Q32F from round 3, Q27B from round 4, and Q24E from round 6.

Urban. An individual-level indicator set equal to 1 if the respondent is from an urban area (and set to 0 otherwise). Survey questions: URBRUR from rounds 3–6.

Age. Age of the respondent, ranging from 18 to 105. Survey questions: Q1 from rounds 3–6.

Employment. Employment status of the respondent, set equal to 1 if the respondent is employed (either full-time or part-time) and otherwise set equal to 0. Survey questions: Q94 from rounds 3 and 4, Q96 from round 5 and Q97 from round 6.

Education. Dummies for the respondents' level of education attainment based on nine education attainment groups. Survey questions: Q90 from round 3, Q89 from round 4 and Q97 from rounds 5 and 6.

Religion. Dummies for eight religion groups. Survey questions: Q98A from rounds 3–6.

Gender. An indicator variable for the respondent's gender. Survey questions: Q101 from rounds 3–6.

Wealth. Three dummies for the ownership of a radio, a television or an automobile. Survey questions: Q92A–C from rounds 3 and 4 and Q90A–C from rounds 5 and 6.

Trust in courts of law. Measures the respondents' level of trust in courts of law; see subsection 2.3. Survey questions: Q49H from round 3, Q55I from round 4 and Q59J from round 5.

Political freedom to organise. Indicator of respondents' attitudes towards political freedom to organise; see subsection 2.3. Survey questions: Q25 from round 3 and Q19 from rounds 4 and 5.

Press freedom. Indicator of respondents' attitudes towards press freedom; see subsection 2.3. Survey questions: Q26 from round 3 and Q20 from rounds 4 and 5.

A.2. *Other Variables*

Anglophone. An indicator for whether (or not) the observation is from an anglophone country.

Region indicators. Eastern Africa includes Tanzania, Kenya, Uganda and Madagascar; western Africa includes Benin, Burkina Faso, Ghana, Guinea, Ivory Coast, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo; southern Africa includes Malawi, Zambia and Zimbabwe. This categorisation follows Bratton and van de Walle (1997).

Landlocked. A binary indicator set equal to 1 if the country is landlocked (and set to 0 otherwise).

Former German colony. A dummy variable for Tanzania, Namibia and Togo – which were German colonies prior to the First World War.

Share of own ethnic group. A district-level index ranging from 0 to 1; it measures the share of the district's population that is of same ethnicity as the respondent. This index is calculated (from Afrobarometer data) following Nunn and Wantchekon (2011).

Ethnic fractionalisation. A district-level index ranging from 0 to 1; it measures the probability that two randomly selected individuals from a district belong to different ethnic groups. This index is calculated (from Afrobarometer data) following Alesina *et al.* (2003).

Slave export. Total slave export count, from both trans-Atlantic and Indian trade, for each ethnic group. Source: Nunn and Wantchekon (2011).

Cities in 1800. An indicator for whether (or not) the focal ethnic group's historical homeland contained a city populated by at least 20,000 inhabitants in 1800. Source: Chandler and Fox (1974).

Historical homelands of ethnic groups. Provided by the digital version of Murdock's (1959) ethnolinguistic map. Land area of each ethnic homeland is computed using the 'shapefile' from Nunn and Wantchekon (2011).

Railway indicator. A dummy variable for whether (or not) there was a colonial railway station within the focal ethnic group's historical homeland. Source: Nunn and Wantchekon (2011).

European explorers. An indicator variable for whether (or not) European explorers passed through the focal ethnic group's historical homeland during the pre-colonial era. Source: Nunn and Wantchekon (2011).

Missionary activity. The number of mission stations located in the focal ethnic group's historical homeland. Source: Nunn (2010).

Light density. Average of night-time light density per square kilometre within the focal ethnic group's historical homeland. Source: https://ngdc.noaa.gov/eog/dmsp/downloadV4composites.html.

Judicial hierarchy. The number of jurisdictional hierarchies beyond the local community. Sources: Murdock (1967) and Nunn and Wantchekon (2011).

Distance to capital city. Distance between (the centroid of) each ethnic homeland and the capital city. Data on capital cities are from the Natural Earth database: http://www.naturalearthdata.com/downloads/10m-cultural-vectors/.

Distance to coast. The distance between the centroid of the focal ethnic homeland and the nearest coast.

Conflict indicators. Three dummy variables – state violence, non-state violence and one-sided violence – are constructed, at the (0.25×0.25)-degree–cell level, using data from ACLED and UCDP. Each of these conflict variables indicates whether the respective type of violence occurred in each cell over the period covered by the two data sets; see subsection 3.2. Sources: for UCDP, Sundberg and Melander (2013) and Croicu and Sundberg (2017); for ACLED, Raleigh *et al.* (2010) and ACLED (2017).

Appendix B. Figures

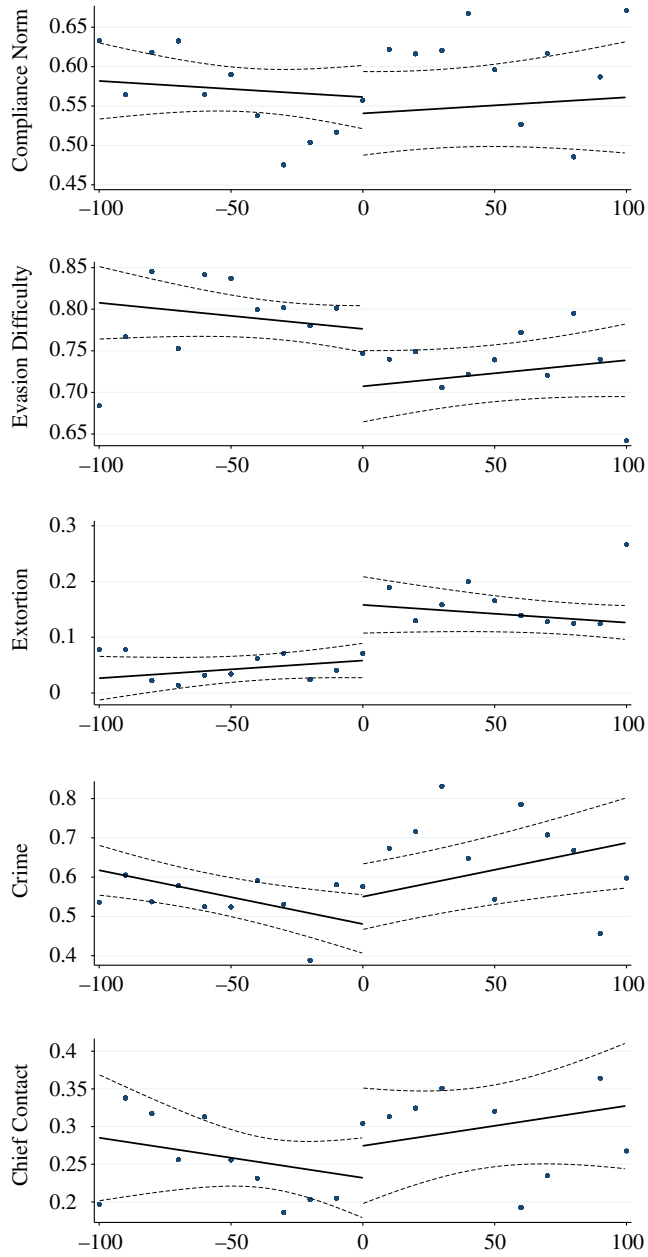

Fig. B1. *RD Plots for Taxation, Security and the Power of Chiefs, by Distance to Anglophone–Francophone Borders in West Africa*

Notes. The figure shows – by distance to border in kilometre – local averages in 10 kilometres bins. The distance from the francophone–anglophone border increases as we move away from the centre point (0). Negative/positive values represent distance into francophone–anglophone territories (from the border). Colour figure can be viewed at wileyonlinelibrary.com.

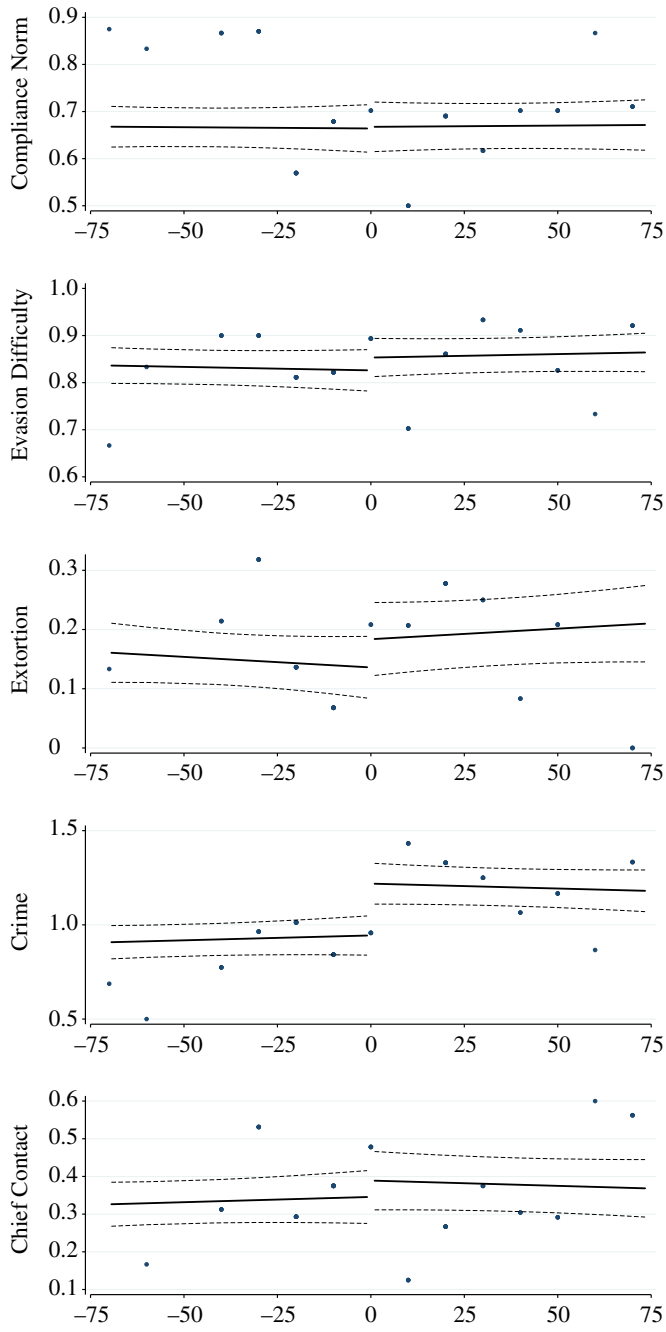

Fig. B2. *RD plots for Taxation, Security and the Power of Chiefs, by Distance to Anglophone–Francophone Borders in Cameroon*

Notes. The figure shows – by distance to border in kilometre – local averages in 10 kilometres bins. The distance from the francophone–anglophone border increases as we move away from the centre point (0). Negative/positive values represent distance into francophone–anglophone territories (from the border). Colour figure can be viewed at wileyonlinelibrary.com.

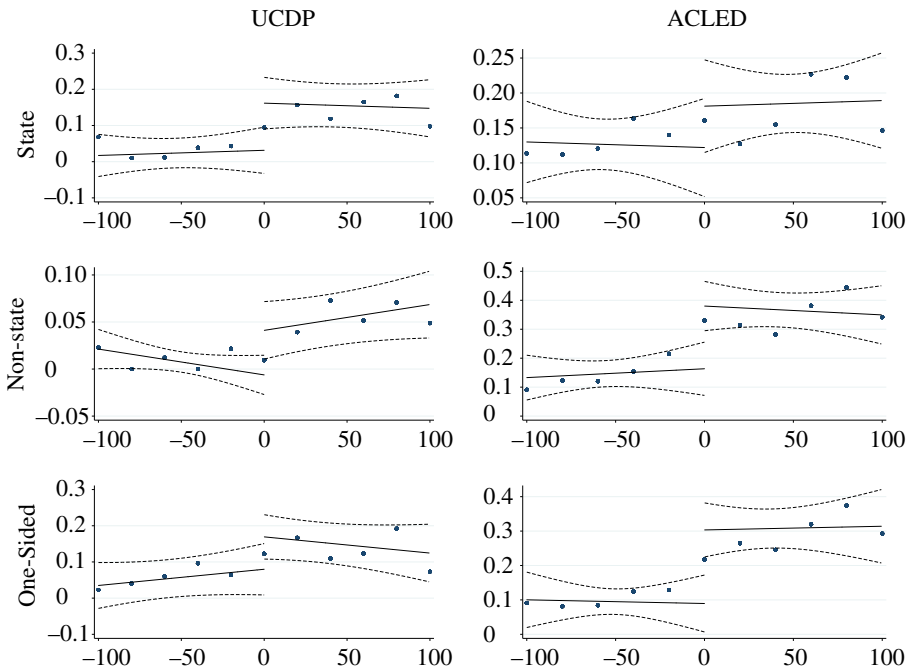

Fig. B3. *State Violence, Non-state Violence and One-sided Violence from UCDP and ACLED Data Sets, by Distance to the Anglophone–Francophone Border in West Africa*

Notes. The figure shows – by distance to border in kilometre – local averages in 20 kilometres bins. The distance from the francophone–anglophone border increases as we move away from the centre point (0). Negative/positive values represent distance into francophone–anglophone territories (from the border). Colour figure can be viewed at wileyonlinelibrary.com.

Chr. Michelsen Institute and Syracuse University
Chr. Michelsen Institute and African Tax Institute, University of Pretoria
Syracuse University
Syracuse University

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Additional Supporting Information may be found in the online version of this article:

Data S1.

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