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European colonization and the corruption of local elites: The case of chiefs in Africa

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ABSTRACT

The association between British colonial rule and lower levels of corruption is often emphasized in legal origins literature (La Porta et al., 2008). However, given the historical context of Africa, we hypothesize that Britain's system of colonial control suggests a legacy of higher corruption among local elites (chiefs). First, much of the colonial control of the local population occurred through chiefs instead of the central state. Hence, the formal legal systems introduced by the colonial powers, while mostly applicable to the central state, had limited relevance to governing much of the population. Moreover, British rule entrenched the power of chiefs and undermined their accountability to the local population. Data from nationally representative surveys on the attitudes of adult Africans from anglophone and francophone countries reveal empirical patterns consistent with this hypothesis. In anglophone countries, the level of corruption among chiefs is found to be significantly higher than in francophone countries. Chiefs in anglophone countries also command a significantly lower level of public trust. These results remain robust when including a diverse set of controls, as well as in a discontinuity analysis on observations near the borders between anglophone and francophone countries.

1. Introduction

Corruption is often considered to be one of the main contributors to Africa's development challenges (Svensson, 2003; Platteau, 2009). Corruption hinders economic, political, and social development (Gyimah-Brempong, 2002; Svensson, 2005; Olken, 2007; Aidt, 2009). There is a growing stream of empirical research underscoring the various causes of corruption (Olken and Pande, 2012; Treisman, 2015). One of the main factors that determines corruption, as argued in the literature, is history, particularly that of colonization (Treisman, 2000; Acemoglu and Johnson, 2005). In this paper, we focus on the legacy of British versus French colonial rule on the corruption of local elites (chiefs) in Africa.

The literature suggests two possible factors as to why the legacy of British rule, as compared to that of French, may affect the corruption of chiefs. While the first reason, based on the legal origins theory, associates British rule with lower levels of corruption, the second one, based on the system of colonial control in Africa, suggests a legacy of greater corruption from British rule.

The legal origins theory argues that the British legal system of common law, compared to French civil law, allows property owners to limit the power of the sovereign from expropriation (La Porta et al., 1999, 2008). Consistent with this the-

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ory, a number of empirical studies have shown that countries that were formerly colonized by Britain, and hence, had adopted the British legal system, tend to exhibit lower levels of corruption than countries that adopted the French civil law (Treisman, 2000; La Porta et al., 2004; Angeles and Neanidis, 2015). It is noteworthy that the distinction between British and French legal origins is based on differences in formal state institutions between the two legal systems, such as greater independence of the judiciary under the British. One could expect that a lower level of corruption in state institutions might constrain corrupt practices in the society (including by chiefs). Thus, to the extent that the presence of a less corrupt judiciary can decrease overall corruption in the society, the legal origins theory suggests a lower level of corruption among chiefs in former British colonies.

With regard to the second factor, that is, the system of colonial control, many scholars of African history have noted that British rule instituted a system of indirect control that greatly empowered chiefs and undermined their accountability. Even though chiefs played important roles in the colonial control of local populations under both colonial powers, there were fundamental differences in the role of chiefs under British and French rule (Crowder and Ikdime, 1970). The British system of native administration (compared to the French rule) bolstered the control of chiefs over their population, strengthened their power to dispense patronage and, hence, weakened the preexisting formal and informal mechanisms of checks that could curb abuse of their power (Vincent, 1977; Reno, 1995; Mulinge and Lesetedi, 1998). An important feature of British rule was the considerable autonomy that it offered chiefs in ruling the local population while shifting their accountability primarily to their colonial master, as opposed to the local population (Migdal, 1988; Mamdani, 1996). This autonomy undermined precolonial constraints on the chiefs' abuse of power and empowered them over the population (Newbury, 2003; Lange, 2004, 2009). In contrast, the French colonial policy systematically undermined the power and autonomy of chiefs in ruling the local population (Crowder and Ikdime, 1970). Chiefs were stripped of their power to appoint subchiefs and to handle legal matters (Crowder and Ikdime, 1970). As agents of the colonial power, their primary task was to collect taxes and recruit labor (Crowder, 1964). Unlike their British counterparts, their control over the expenditure of the budget and land resources was limited, which diminished their opportunity to distribute rents and extend patronage networks (Alexandre, 1970).

Scholars have noted that the divergent legacies of the British and French systems of colonial control contributed to strengthening the power of chiefs in anglophone countries (see, for instance, Asiwaju, 1970; Eggen, 2011). For example, based on a detailed historical comparison of chiefs in ethnic groups that were partitioned by colonial borders in West Africa (such as the Hausa between Nigeria and Niger), Miles (1993, 33) concludes that "chiefs under British colonial rule emerged at independence with greater power and authority *vis-à-vis* the national government than did their counterparts in former French territories." Acemoglu et al. (2014) attribute the origin of chiefs' power in contemporary Sierra Leone to the British system of native administration in colonial times. Firmin-Sellers (2000) notes how the strengthening of the power of paramount chiefs in the colonial control in the former British colony of Ghana, as compared to that of francophone Côte d'Ivoire, led to greater power of Ghanaian chiefs over land allocations after independence, which is a crucial resource in agricultural economies. Baldwin (2014, 261) also notes the general trend in Africa regarding the greater role of chiefs in "allocating land in countries that were colonized by the British." This entrenchment of chiefs' power under the system of native administration, therefore, suggests that the legacy of British rule may have contributed to undermining the accountability of chiefs.

Using microdata from the nationally representative Afrobarometer surveys in 21 African countries, we examine the empirical relationship between British colonial rule (as compared to French rule) and the corruption of chiefs. The corruption indicator is constructed from the respondents' perceptions about the levels of corruption among chiefs in their community. We find that the levels of corruption among anglophone chiefs is significantly higher than that of francophone chiefs. We also examine the relationship between the identity of the colonizer and citizens' trust in chiefs, as measured by the respondents' reported levels of trust in chiefs. We find consistent results, in that respondents in anglophone countries, compared to francophone respondents, have significantly lower levels of trust in chiefs.

We find that controlling for factors that are typically associated with legal origins (for example, the level of trust in the judiciary) does not affect the results. In the context of colonial Africa where the central state was weak, colonial powers controlled the population mostly through chiefs, instead of through the central state (Crowder, 1964). The formal legal systems introduced by the colonial powers were applicable largely to the central state and had limited relevance to governing the majority of the population (Phillips, 1953; Bennett, 1981; Daniels et al., 2011). Many scholars of African political economy also emphasize the limited role of the central state in much of the hinterlands in contemporary Africa (Herbst, 1989; Michalopoulos and Papaioannou, 2020). The empirical patterns in this paper also suggest that the empowerment of chiefs under colonial rule may have a more potent legacy than the formal legal system that colonizers left behind.

Although one cannot necessarily attribute estimated effects to a single causal factor spanning several decades, due to inherently hard-to-measure historical events that could potentially confound the results (Austin, 2008), the empirical result remains remarkably robust across several specifications. First, we control for various geographic features of historical ethnic homelands. These include ecological features, land and resource endowments, and geographic proximity of the ethnic homeland to the capital city and to the coast. Second, we control for ethnicity-level historical factors from precolonial periods, such as the level of state centralization, exposure to the slave trade, and the degree of urbanization. Third, we include controls for historical indicators pertaining to the colonial era, which may affect economic development and local institutions, such as colonial investments and contact with European missionaries. Fourth, we include controls for contemporary factors at both the levels of the ethnic homeland and the district, which may affect the quality of local institutions. At the level of the ethnic homeland, we control for light density at night to capture the effect of current development at the local level.

We further control for ethnic fractionalization and the share of the population in the district that is of the same ethnicity as the respondent; these controls are meant to account for the potential effect of ethnic composition on local institutions. The results are found to be robust when including all these controls.

We also undertake regression discontinuity (RD) analysis, focusing on respondents located close to national borders between anglophone and francophone countries. One peculiar feature of African national borders is their arbitrariness. With little knowledge about the local context, colonial powers demarcated African national borders without considering local conditions (Herbst, 1989). As a result, many ethnic groups, which lived under shared political and cultural systems in precolonial times, were split into separate countries (Michalopoulos and Papaioannou, 2016). Thus, the RD analysis limits the comparison to a set of observations in areas that had lived under similar historical settings in precolonial times. This comparison helps address the concern that the empirical patterns could be driven by some persistent differences (between the two groups of colonies) that may have their origins in precolonial times due to, for example, Britain selectively colonizing areas that already had corrupt chiefs. The results from the RD analysis also deliver a consistent pattern—that in anglophone countries, the level of corruption among chiefs is higher, and chiefs are considered less trustworthy. We further show that the results are not explained by ethnicity-level unobservables, as demonstrated by the robustness of the results when including ethnicity-level fixed effects.

Our paper contributes to the stream of empirical research that studies a wide range of determinants of corruption. A number of studies examine the role of culture. La Porta et al. (1999) show that countries where a larger proportion of the population practice hierarchical religion have a higher level of corruption than countries with more egalitarian religion. Akbari et al. (2019) examine the impact of marriage practices on corruption. They show that the level of corruption increases with an increase in the prevalence of consanguineous marriage, as it may encourage nepotism and favoritism. Jha and Panda (2017) examine corruption in individualistic versus collectivist cultures. They find that individualistic countries have lower levels of corruption, as compared to collectivist countries. They argue that collectivist societies would be more likely to bend the law to benefit the interest of the groups to which they belong to and overlook corrupt activities to maintain their social conformity. Other important factors studied include ethnic heterogeneity (Easterly and Levine, 1997; Alesina et al., 2003); media and press freedom (Brunetti and Weder, 2003; Chowdhury, 2004; Jha and Sarangi, 2017); government regulation (Holcombe and Boudreaux, 2015); democracy (Treisman, 2000); and availability of local mines (Knutsen et al., 2017).

Our focus on chiefs, as opposed to the formal state, is a notable departure from much of the current literature on the determinants of corruption. Even though state capacity is considered an important precondition for economic development (see, for example, Besley and Persson, 2011; Acemoglu and Robinson, 2012; Johnson and Koyama, 2014), the central state is weak and chiefs remain influential on a wide range of governance issues in contemporary Africa (Ndulo, 2011; Willis, 2013; Michalopoulos and Papaioannou, 2015, 2020; Ali et al., 2019; Henn, 2020). In their common role as custodians of land (Boone, 2003), chiefs often exert influence on the allocation of land and the distribution of land rents. This could have significant welfare implications in many African societies, due to the dominance of agriculture and natural resources in the economy. For example, a farmer's patronage network with chiefs is shown to influence the security of property rights over agricultural plots and the level of agricultural investment (Goldstein and Udry, 2008; Honig, 2017). The accountability of chiefs is also an important source of concern in the equitable distribution of mining royalties, in which "chiefs … enter into deals with mining companies on behalf of rural communities" (Mnwana, 2018), and often face serious corruption allegations (Rowell et al., 2005; Hilson et al., 2014; Crawford and Botchwey, 2017). Chiefs also engage in a number of governance roles, such as the administration of justice and contract enforcement (Logan, 2013); the collection of taxes (Glennerster et al., 2013); the provision of public goods (Acemoglu et al., 2014; Henn, 2020); and the implementation of aid projects (Carlson and Seim, 2020). In addition to their direct role in local governance, chiefs exert influence on the central state via lobbying, as well as mobilizing their local networks and resources for election campaigns (Baldwin, 2013; Baldwin and Mvukiyehe, 2015; Kadt and Larreguy, 2018). Chiefs also interact with the central state, acting either as substitutes or complements to the central state (Henn, 2020). Thus, our focus on chiefs is well warranted since their accountability could have considerable implications on the quality of governance and economic development in many African communities.

Our paper also contributes to the recent empirical literature on the legacy of colonial history in Africa (for a detailed review, see Michalopoulos and Papaioannou, 2020). This literature builds on earlier cross-country studies on the impact of colonialism on contemporary development (Acemoglu et al., 2001; La Porta et al., 2008). The first strand of this literature on African colonial history focuses on the persistent effect of colonial investments in physical and human capital. Using data from former French colonies in West Africa, Huillery (2009) finds that colonial investments in teachers and clinics are positively associated with current educational and health outcomes. Colonial railways sill constitute a significant portion of existing railway networks in Africa (Jedwab and Storeygard, 2019). Using data from Ghana and Kenya, Jedwab and Muradi (2016) and Jedwab et al. (2017) show that railway investments in colonial times have persistent effects on the distribution and aggregate levels of current economic activities.

The second strand of the empirical literature on African colonial history examines the legacies of colonial institutions. In many cases, the nature of colonial institutions and their subsequent effects were also influenced by precolonial political orders (Cappelli and Baten, 2017), as the colonizers took advantage of the existing power structures (in precolonial times) to control local populations. For example, an important feature of African colonial rule is the indirect control of local populations through powerful men within the locals (chiefs). Indirect colonial rule is shown to be associated with legacies of lower levels of pro-democracy beliefs and electoral participation (Lechler and McNamee, 2018), weaker state capacity (Ali et al., 2019), and greater control of land resources by chiefs (Shifa, 2020). The lack of a strong fiscal capacity in precolonial Africa

induced the colonial powers to rely on the exploitation of locals through forced labor (Waijenburg, 2018), and on the underpricing of export commodities using trade monopolies (Tadei, 2018). The extraction of resources through trade monopolies is shown to have a negative effect on current development, particularly rural poverty (Tadei, 2018). The extent of resource extraction through forced labor was also substantial. For example, in the case of the French West and Equatorial African corvée system, Waijenburg (2018) estimates that the revenues from forced labor contributed to nearly half of the colonial budget in the pre-WWI period. As in the case of indirect rule, the use of forced labor was often weaved into precolonial institutions in which the labor tribute systems precolonial times were extended by the colonizers. In the case of Burundi and Rwanda, where Tutsi chiefs were empowered to extract forced labor from mostly Hutu farmers, the use of forced labor is shown to have decreased the current levels of inter-ethnic trust and cooperation (Blouin, 2016). Lacking the administrative capacity to directly control local resources, colonizers also resorted to outsourcing territories to private corporations under concession agreements, which enabled the corporations to exploit the local populations by unleashing violent and brutal tactics. Lowes and Montero (2017) find that regions that were part of Belgium's colonial concessions in the Democratic Republic of Congo, as compared to nearby areas outside the concession borders, exhibit a lower level of local democratization (as indicated by the likelihood of whether chiefs are elected by the local community) and lower provision of public goods.

Another salient feature of Africa's colonial legacy is the arbitrariness of national borders, in which many ethnic groups were split across countries. Although much of the colonial institutions were built on existing pre-colonial power structures, the partitioning of ethnic groups represents a significant disruption from the precolonial political order. The partitioning of ethnic groups is shown to be significantly correlated with worse outcomes, particularly with violent conflicts (Englebert et al., 2002; Michalopoulos and Papaioannou, 2016). By highlighting how the colonial rule may have affected the accountability of chiefs, our paper complements this literature on the legacy of colonial history.

The rest of the paper is organized as follows: Section 2 presents a brief review of the historical background. Section 3 introduces the data. Section 4 presents the estimation results. We conclude in Section 5.

2. Historical background

Chiefdoms and kingdoms of various forms and strengths, as well as stateless societies, characterized the political structure of Africa in precolonial periods. The accountability mechanisms to constrain the power of leaders featured a wide array of institutional arrangements and incentives. The political organizations in many precolonial states were such that power was often distributed among a hierarchy of institutions, such as lineages, age–grade sets, and aristocratic societies (Lloyd, 1960; Atanda, 1970; Kiwanuka, 1971; Odotei and Awedoba, 2006). Such a hierarchy of institutions enabled administrative levels to check, challenge, and nullify the actions of each other (Kiwanuka, 1971; Wilks, 1975). In addition to the distribution of power through the hierarchical political organizations, the power of chiefs was subject to other checks through various socioreligious taboos that minimized the rulers' tendency to use their power in excess (Schapera, 1940; Ayandele, 1970; Smith, 1976; Atanda, 2006). Moreover, since most centralized states in precolonial Africa were formed through the gradual unification of once autonomous clans, succession to power was based on royal matrilineality, which was done to preserve the unity of the various clans (Akintoye, 1970; Kiwanuka, 1971). Such an arrangement created a system whereby chiefs were chosen competitively from among a potentially large number of candidates. The intense political competition among potential leaders provided further incentives for their accountability (Wilks, 1975).

Chiefs relied on gifts and tributes that they derived in return for their leadership services to their community, which also served as an additional mechanism to encourage better accountability in precolonial societies. In describing the incentivizing effect of having such an independent income on the accountability of chiefs, Palagashvili noted:

> The chief had no other real means of income besides what he got from his citizens in exchange for his services as the political and religious leader of the tribe. In that way, the chief acted as a residual claimant on the governance services provided to his people in his community. In order to receive the payment, the chief must provide quality governance services to his citizens. (Palagashvili, 2018, 287)

Failure of a chief to govern his people properly could also precipitate rebellions from community members, who threatened to leave the chiefdom to either form new settlements elsewhere or join other chiefdoms. Such exit options "often served as a check on despotism" (Ayittey, 1991, 109). The "threat of citizens' exit," therefore, could act as an incentive for kings and chiefs to be responsive to the needs of their members, who are "their only sources of revenue" (Palagashvili, 2018, 289).

In their attempt to control the African population, colonizers had to consider the existing power structure that they encountered. This meant that both Britain and France had to utilize chiefs as intermediaries to control the local population. However, there were fundamental differences in the ways the chiefs were used (Crowder, 1964). Under the system of native administration, the British colonial strategy focused on institutionalizing the chiefs' roles in a way that entrenched their control over the local population (Mamdani, 1996). It gave chiefs greater autonomy than they had in the precolonial days and weakened the preexisting formal and informal mechanisms of accountability (Migdal, 1988; Mann and Roberts, 1991). Chiefs retained judicial power and had the authority to appoint subchiefs and village headmen. Although chiefs were granted significant autonomy in matters of local administration, they were expected to protect the interests of the new colonial power; their accountability shifted primarily to their colonial master, as opposed to the local population. For example, the council of chiefs that represented various institutions in precolonial times, such as lineages and grade sets, no longer had the

power to dispose of chiefs, undermining the public's ability to constrain the abuse of authority by chiefs (Atanda, 1970). As a result, the preexisting political system of checks and balances were increasingly replaced by a "monopoly of governance services" by chiefs (Palagashvili, 2018, 293). Backed by British military support, chiefs also acquired greater power to put down mass rebellions (Ayittey, 1991), hence, reducing the once existing "threat of citizens' exit" to join other chiefdoms (Palagashvili, 2018, 289). The native administration also allowed chiefs to retain a certain portion of the tax they collected (Crowder, 1968). Such external income minimized the chiefs' dependence on tributes from their people and weakened their incentive to provide quality governance services (Palagashvili, 2018). In addition to tax revenues, chiefs became increasingly dependent on court fees and fines as a source of revenue (Dorjahn, 1960). Their control on customary courts, without the previous traditional checks on their power, enabled chiefs to amass wealth through excessive court fines and fees. Highlighting the widespread corruption in customary courts in British West Africa, Dorjahn noted:

> Irregularities within and by the chief's court seem to have increased as their revenue-raising possibilities were realized. High court fees were collected from both parties and then no verdict was given. Adjourned cases were not reopened unless a large 'beg' was forthcoming; .... Bribes were accepted in return for a favourable verdict; .... Settlements out of court were regarded as preferable, whatever the merits of the case, and such fines were often appropriated *in toto* by the Paramount Chief. (Dorjahn, 1960, 135)

The autonomy that chiefs had over their local populations, in matters of resource allocation (for instance, land use) and local administration, further enabled them to strengthen their patronage networks within the society. For example, financing of mission education often came from local sources and "sometimes in conjunction with chiefs" (Meier zu Selhausen, 2019, 31). The chiefs' networks with missionaries allowed them to channel access to education to their patrons (Gartrell, 1983; Kalinga, 1985). They used the courts and native police to punish those who challenged them (Crowder and Ikime, 1970). Their autonomy to appoint subchiefs and village headmen provided a further opportunity to reward their patrons (Mamdani, 1996), resulting in widespread corruption and extortion during colonization (Crowder, 1968; Ayandele, 1970). The control by chiefs of the distribution of resources meant that they could increasingly rely on their extensive patronage network, undermining the need for popular consent from their people, and hence, the accountability of chiefs (Asiwaju, 1970; Atanda, 1970; Berman, 1998).

In contrast to the British system of native administration that systematically strengthened the power of chiefs, French colonial rule weakened their control over the local population. In outlining the authority of chiefs under the colonial administration of France, Joost van Vollenhoven, the governor-general of French West Africa (1917–1918), underscored the need to undermine the power of chiefs: "The rule, which determined the duties of chiefs, must be as follows, they must have no real power of any kind, for there are not two authorities in the circle: French authority and native authority—there is only one!" (Alexandre, 1970, 65).

Importantly, as compared to their British counterparts, chiefs under French rule were granted much less autonomy over their populations; rather, they were treated as agents of the colonial government with "clearly defined duties and powers" (Crowder, 2012, 200). For example, the chiefs did not have the power to appoint subchiefs, nor did they retain traditional judicial authority; they were also stripped of the power to control the expenditures in the budget and the maintenance of a local police force and prison (Crowder and Ikime, 1970). Although the primary task of chiefs in French colonies was to collect taxes, unlike their British counterparts, they were not permitted to receive portions of the revenue. These limits on the control of local administration and resources weakened their ability to distribute rents, and hence, diminished their opportunities to extend their patronage network (Alexandre, 1970).

3. Data and descriptive analysis

Our main source of data is the Afrobarometer survey, which collects information on a nationally representative sample of adult citizens in African countries. The survey gathers data on the attitudes of respondents toward various political, social, and economic issues. It also provides data on basic socioeconomic characteristics of the respondents: age, gender, education level, employment status, religion, indicator for residing in an urban area, and wealth. Our sample consists of more than 40,000 observations from 21 African countries, of which 9 are francophone countries and 12 are anglophone countries.[1] We use Rounds 4 and 6 of the survey (survey waves in 2008 and 2015), as these rounds are the only ones that provide information on our outcome variables. Even though data from Round 5 are not included in our analysis, the exclusion of Round 5 does not appear to result in a significant loss of information. First, all the countries in Round 5 are also included in our sample from Rounds 4 and 6. So we do not lose any country as a result of not including Round 5. Second, the outcome variables are quite stable over rounds: for the national mean values of our main outcome variable, the corruption of chiefs, the correlation between the Rounds 4 and 6 is over 90%.

We consider two outcome variables from the survey data. The first variable measures the prevalence of corruption among chiefs, which we construct based on the perceptions of survey respondents about the extent of corruption by traditional leaders in their community. The survey question reads:

[1] The francophone countries in our sample are Benin, Burkina Faso, Côte d'Ivoire, Guinea, Madagascar, Mali, Niger, Senegal, and Togo. The anglophone countries are Botswana, Ghana, Kenya, Lesotho, Malawi, Namibia, Nigeria, Sierra Leone, Tanzania, Uganda, Zambia, and Zimbabwe.

How many of the traditional leaders do you think are involved in corruption, or haven't you heard enough about them to say?

Respondents answer the question by choosing one of four options: *(1) none; (2) some of them; (3) most of them; or (4) all of them.* The outcome variable in our benchmark regressions, *Corruption I,* is an indicator for whether the respondent states that at least some of the chiefs are corrupt. *Corruption I* equals zero if the respondent chooses option (1) that is, none of the traditional leaders are corrupt. Otherwise, *Corruption I* equals one. An advantage of the dummy indicator is that the estimated coefficients represent differences in shares of respondents, making the interpretation more straightforward. Otherwise, we find similar results when using an alternative measure of corruption, *Corruption II,* whose values range from 1 to 4, with higher values assigned to survey responses corresponding to a higher prevalence of corruption. Note that, as in many studies of corruption, we rely on the respondents' perception of corruption as opposed to direct information on corruption incidents. Since corruption happens in secrecy and takes many forms, measuring the extent of corruption is an inherently difficult challenge and remains a subject of much debate (Kaufmann, 2005). On the one hand, the perception-based indicators could be biased by individuals' attitudes and their levels of information (Olken, 2009). On the other hand, perception-based indicators have the potential advantage of reflecting the overall prevalence of corruption that may not be captured by objective measures on specific types of corruption incidents (Jahedi and Méndez, 2014). Our measure of corruption also does not differentiate between various forms of corruption, such as bribes and theft of government spending (Desierto, 2019).

Our second outcome variable indicates the level of public trust in traditional leaders. The survey question reads:

How much do you trust traditional leaders, or haven't you heard enough about them to say?

Respondents answer the question by choosing one of four options: *(1) not at all; (2) just a little; (3) somewhat; or (4) a lot.* The outcome variable, *Trust I,* is an indicator that equals 1 if the respondent chooses option (4), that is, trusts traditional leaders a lot. Otherwise, *Trust I* equals 0. We also consider an alternative measure of trust, *Trust II,* whose values range from 1 to 4, in which higher values represent a higher level of trust in chiefs. We find similar results from both indicators of trust.

The first two rows of Table 1 report the moments for the outcome variables, namely, the level of corruption among chiefs and the public's trust in them. The mean of *Corruption I* for the whole sample indicates that a large share of the public (67%) considers chiefs to be corrupt. The extent of corruption signals that chiefs are not merely cultural and spiritual figures who owe their influence primarily to the society's reverence for them. Note also the remarkable difference between anglophone and francophone respondents, where a much larger share of the former (73%) consider chiefs to be corrupt than do the latter (55%).

The variable on trust also displays a similar pattern. The mean of *Trust I* for the entire sample is 0.45, indicating that 55% of the public lack trust in chiefs. The difference in the mean of *Trust I* between francophone and anglophone respondents mirrors the pattern for corruption. Anglophone respondents remain substantially less trusting of their chiefs than their francophone counterparts. The magnitude of this difference is quite substantial (55% and 40% for francophone and anglophone respondents, respectively).

4. Empirical results

The regression equation we consider is given by:

$$Y_i = \alpha + \beta * Anglophone_i + Z_i'\Gamma + \varepsilon_i,$$

where Y_i, indicates either of the dependent variables. The subscript i identifies the respondent. *Anglophone* is an indicator variable that equals 1 if the respondent is from an anglophone country and zero otherwise. Our coefficient of interest is β; it captures the difference in the outcome variable between anglophone and francophone respondents. The vector Z includes the set of control variables. We report results from the linear model. Results from nonlinear probability models (logit or probit) also deliver similar results. The summary statistics for each of the controls is provided in Table 1. These controls will be discussed as they are introduced in the regression estimations. Further details of the variables and data sources are also provided in the Appendix.

4.1. Benchmark results

Table 2 shows the estimated relationship between colonial status and the level of corruption using all observations in our sample. In Panel A, the dependent variable is the binary indicator for the level of corruption, *Corruption I*. In Panel B, we report results using the alternative index, *Corruption II*. We consider both indexes to verify that the results are not driven by the choice of cut-off point that one uses to define the dependent variable. Standard errors, clustered at both ethnicity and country level, are reported in parenthesis (Cameron et al., 2011). In all the regressions, we include fixed effects for the survey rounds.

In column (1), we include controls for regional factors. These include dummies for West Africa and East Africa, and an indicator for whether the country is landlocked. We also include a dummy for whether the country was colonized by

Table 1
Descriptive statistics.

	Observation		Mean (Std. dev.)		
	Anglo-phone	Franco-phone	Whole sample	Anglophone	Francophone
Outcome variables:					
Corruption I	30,536	13,380	0.67 (0.47)	0.73 (0.44)	0.55 (0.49)
Trust I	32,767	14,501	0.45 (0.49)	0.40 (0.49)	0.55 (0.49)
Individual controls:					
Male	30,536	13,380	0.51 (0.49)	0.51 (0.50)	0.51 (0.49)
Employment	30,536	13,380	0.36 (0.48)	0.41 (0.49)	0.24 (0.42)
Age	30,536	13,380	36.9 (14.6)	36.3 (14.6)	38.2 (14.4)
Education	30,536	13,380	3.12 (2.08)	3.54 (1.92)	2.15 (2.12)
Urban	30,536	13,380	0.33 (0.47)	0.34 (0.47)	0.33 (0.47)
Wealth	30,536	13,380	0.40 (0.31)	0.41 (0.31)	0.39 (0.33)
Country controls:					
West Africa	30,536	13,380	0.44 (0.49)	0.25 (0.43)	0.89 (0.31)
East Africa	30,536	13,380	0.23 (0.42)	0.29 (0.46)	0.11 (0.31)
Former German colony	30,536	13,380	0.12 (0.32)	0.14 (0.35)	0.07 (0.26)
Landlocked	30,536	13,380	0.43 (0.49)	0.44 (0.49)	0.41 (0.49)
Geographic controls:					
log distance to sea coast	30,536	13,380	5.84 (1.03)	5.97 (0.93)	5.55 (1.18)
log distance to capital city	30,536	13,380	5.30 (0.85)	5.31 (0.86)	5.27 (0.80)
Malaria stability index	30,536	13,380	13.5 (10.2)	9.8 (8.4)	22.0 (8.7)
A diamond mine indicator	30,536	13,380	0.27 (0.44)	0.30 (0.46)	0.19 (0.39)
An oil field indicator	30,536	13,380	0.07 (0.26)	0.06 (0.24)	0.11 (0.31)
Ethnic controls:					
Cities in 1800	30,536	13,380	0.12 (0.32)	0.23 (0.42)	0.16 (0.37)
Railway	30,536	13,380	0.40 (0.49)	0.48 (0.49)	0.20 (0.39)
Explorer	30,536	13,380	0.53 (0.49)	0.56 (0.49)	0.47 (0.49)
log (Missionary stations (per km^2)($\times$ 1000)	30,536	13,380	−9.1 (1.3)	−8.8 (1.2)	−9.7 (1.3)
log (intensity of exposure to slave trade)	30,536	13,380	−4.7 (5.0)	−5.6 (4.9)	−2.3 (4.6)
Density of night light	30,536	13,380	0.82 (1.55)	0.93 (1.73)	0.57 (0.97)
Precolonial centralization					
Stateless ethnicities	30,536	13,380	0.09 (0.29)	0.11 (0.31)	0.05 (0.23)
Petty chiefdoms	30,536	13,380	0.21 (0.41)	0.20 (0.40)	0.25 (0.43)
Paramount chiefdoms	30,536	13,380	0.30 (0.45)	0.28 (0.45)	0.35 (0.48)
Precolonial states	30,536	13,380	0.15 (0.36)	0.17 (0.37)	0.14 (0.35)
District controls:					
Own ethnic share	30,536	13,380	0.89 (0.22)	0.90 (0.22)	0.89 (0.22)
Fractionalization	30,536	13,380	0.09 (0.20)	0.09 (0.20)	0.10 (0.19)

Notes: This table reports means and standard deviations of the variables by colonial status (for the whole sample and comparisons between anglophone versus francophone countries). Standard deviations are in parentheses. The control variables are either at individual, ethnicity, district, or country levels. Outcome variables are at individual levels.

Germany before the First World War, as a significant part of the colonial experience of former German colonies did not derive from French or British rule. Column (2) further controls for individual characteristics of the respondent. Data on individual controls are obtained from the Afrobarometer survey. They include age and age squared, an indicator for gender, an indicator for whether the respondent resides in an urban center, employment status (employed vs. unemployed), levels of education, fixed effects for the respondent's religion, and an index for household wealth (ranging from zero to one, generated using factor analysis on ownership of assets).

In Column (3), we include additional controls for various geographic features of ethnic homelands in which the respondent resides. The ethnic homeland map is based on Murdock's (1959) ethnolinguistic atlas (Nunn and Wantchekon, 2011). We merge this map with the various rounds of the Afrobarometer survey, using village-level geographic data on the location of respondents. Geographic features could influence economic development and institutional quality through their effect on disease prevalence (Gallup and Sachs, 2001); population density (Ashraf and Galor, 2011); and access to trade (Nunn and Puga, 2012). Availability of natural resources could also matter for local institutions by fostering civil wars (Ross, 2006) and corruption (Knutsen et al., 2017). Thus, the geographic controls include an index for malaria suitability (to capture ecological features in the ethnic homeland), distance of the centroid of the ethnic homeland to the nearest coast (to account for access to international trade), and indicator variables for natural resource availability of diamond mines and petroleum fields. These geographic controls are obtained from Michalopoulos and Papaioannou (2013). In addition, we also control for distance from the centroid of the ethnic homeland to the capital city, which helps to account for the limited influence of national institutions as one moves away from the center (Herbst, 2000).

In column (4), we add a number of ethnicity-level controls to account for precolonial, colonial, and contemporary ethnicity-level features that may affect the quality of local institutions. With regard to precolonial features, we include controls for the level of political centralization, exposure to slave trade, interaction with Europeans, and the level of economic development. The historical level of state centralization is shown to affect contemporary local development

Table 2
Benchmark results on corruption of chiefs.

	(1)	(2)	(3)	(4)	(5)
Panel A					
Anglophone	0.27***	0.23***	0.24***	0.21***	0.21***
	(0.05)	(0.04)	(0.04)	(0.04)	(0.04)
Observations	43,916	43,916	43,916	43,916	43,916
R^2	0.077	0.095	0.098	0.104	0.104
Individual controls	–	Yes	Yes	Yes	Yes
Geographic controls	–	–	Yes	Yes	Yes
Ethnic controls	–	–	–	Yes	Yes
District controls	–	–	–	–	Yes
Panel B					
Anglophone	0.49***	0.42***	0.45***	0.41***	0.41***
	(0.07)	(0.06)	(0.06)	(0.06)	(0.06)
Observations	43,916	43,916	43,916	43,916	43,916
R^2	0.070	0.085	0.091	0.095	0.095
Individual controls	–	Yes	Yes	Yes	Yes
Geographic controls	–	–	Yes	Yes	Yes
Ethnic controls	–	–	–	Yes	Yes
District controls	–	–	–	–	Yes

Notes: The dependent variable in Panel A, *Corruption I*, is a binary indicator for whether chiefs are corrupt. The dependent variable in Panel B, *Corruption II,* assumes values ranging from 1 to 4, with higher values corresponding to greater degrees of corruption. *Anglophone* is a dummy for whether the respondent is from an anglophone country. All columns include a survey-round fixed effect. Column (1) includes regional dummies for West Africa and East Africa, and indicator variables for whether a country is landlocked, and whether the country was a former German colony before the First World War. Column (2) controls for individual-level variables that include age and age squared, an indicator for gender, an indicator of whether the respondent resides in an urban center, employment status (employed vs. unemployed), years of education, an index for wealth, and eight fixed effects for the respondents' religion. Column (3) controls geographic indicators that include distance of the ethnic homeland to the seacoast as well as to the capital city, an index for malaria stability, and indicators for natural resource availability of diamond mines and petroleum fields. Column (4) includes a set of ethnic homeland controls: exposure to slave trade, density of nighttime light, indicators for levels of precolonial centralization, precolonial contact with European explorers, urbanization levels in 1800, access to the colonial rail network, and missionary activity during colonial times. Column (5) controls for the share of the population in own ethnic group and ethnic fractionalization. The double-clustered standard errors at the country and ethnic homeland levels are reported in parentheses.
***, **, and * indicate statistical significance, with standard errors at the 1%, 5%, or 10% level, respectively.

(Michalopoulos and Papaioannou, 2013) and the quality of institutions (Gennaioli and Rainer, 2006). We use Murdock's (1967, 160) index of "jurisdictional hierarchy" beyond the local community level. The index ranges from 0 to 3, representing stateless societies, petty chiefdoms, paramount chiefdoms, and ethnic homelands that are part of large states. We include dummies for each level of centralization in the regression. Exposure to slave trade could affect local institutions by altering their trust toward leaders (Nunn and Wantchekon, 2011). We thus control for the intensity of exposure to slave trade by using the total number of slaves exported from each ethnic homeland per area of the ethnic homeland (Nunn and Wantchekon, 2011). We also control for an indicator variable for whether European explorers came in contact with the ethnic group's historical homeland during the precolonial era, to account for possible European cultural influence on local customs and institutions. The fourth precolonial variable that we include in column (4) is an indicator variable for whether the ethnic homeland had an urban center with a population of at least 20,000 in 1800 (Chandler and Fox, 1974). This variable, which indicates the historical level of urbanization, is meant to account for the level of precolonial economic development.

Two controls related to the colonial period are also included in column (4). The first one, which is an indicator for the presence of a colonial railway station in the ethnic homeland, accounts for colonial investment in infrastructure (Dell and Olken, 2020). Colonial railroads in Africa may have triggered increasing returns with persistent effects on the distribution of economic activity (Jedwab and Moradi, 2016). The second one is an indicator for the presence of a missionary station in the ethnic homeland, as missionary influences may undermine local customary institutions (Okoye, 2015). However, Jedwab et al. (2018) note that the placement of missions was largely endogenous, prioritizing "healthier, safer, and more accessible and developed areas." Hence, the impact of missionary education is less favorable than often claimed in the literature. We also control for nighttime light density of ethnic homelands to account for the effect of current economic development. We construct the nighttime light density index per square kilometer, using a pixel-level satellite image, by averaging across pixels that lie within each historical ethnic homeland (Michalopoulos and Papaioannou, 2013).

Column (5) includes two additional variables at the district level. These are ethnic fractionalization in the respondent's district and the share of the population in the district that is of the same ethnicity as the respondent. These controls help account for the potential effect of ethnic composition on traditional institutions, as customary institutions tend to be shared among members of the same ethnicity. In constructing both variables, we follow Nunn and Wantchekon (2011) and use the sample of individuals in the Afrobarometer surveys.

Table 3
Benchmark results on trust in chiefs.

	(1)	(2)	(3)	(4)	(5)
Panel A					
Anglophone	−0.23***	−0.16***	−0.18***	−0.16***	−0.16***
	(0.08)	(0.06)	(0.06)	(0.05)	(0.05)
Observations	47,268	47,268	47,268	47,268	47,268
R^2	0.050	0.096	0.102	0.105	0.105
Individual controls	–	Yes	Yes	Yes	Yes
Geographic controls	–	–	Yes	Yes	Yes
Ethnic controls	–	–	–	Yes	Yes
District controls	–	–	–	–	Yes
Panel B					
Anglophone	−0.47***	−0.33***	−0.38***	−0.32***	−0.32***
	(0.13)	(0.10)	(0.10)	(0.09)	(0.09)
Observations	47,268	47,268	47,268	47,268	47,268
R^2	0.043	0.092	0.098	0.101	0.101
Individual controls	–	Yes	Yes	Yes	Yes
Geographic controls	–	–	Yes	Yes	Yes
Ethnic controls	–	–	–	Yes	Yes
District controls	–	–	–	–	Yes

Notes: The dependent variable in Panel A, *Trust I*, is a binary indicator for trust in chiefs. In Panel B, the dependent variable is *Trust II*, whose values range from 1 to 4, with higher values corresponding to a higher level of trust in chiefs. *Anglophone* is a dummy for whether the respondent is from an anglophone country. Column (1) includes a survey-round fixed effect, regional dummies for West Africa and East Africa, indicator variables for whether a country is landlocked and whether a country was a former German colony before the First World War. Columns (2)–(5) further include sets of individual-, geographic-, ethnic-, and district-level controls, respectively. See Table 2 for the detailed description of the set of variables in each column. The double-clustered standard errors are reported in parentheses at the country and ethnic homeland levels.
***, **, and * indicate statistical significance, with standard errors at the 1%, 5%, or 10% levels, respectively.

According to the baseline result in column (1), the level of corruption among anglophone chiefs is significantly higher than that of francophone chiefs. This result holds both when using the dummy index for corruption (top panel) and the alternative index (bottom panel). The estimated coefficient remains relatively stable and significant across all columns.

Table 3 reports the results on the level of trust in chiefs. In Panel A, the dependent variable is the dummy indicator for the respondent's trust in chiefs, *Trust I*. In Panel B, we consider the alternative index *Trust II,* whose values range from 1 to 4, with larger values representing a higher level of trust. In all columns, we control for a survey-round fixed effect. Column (1) controls for regional controls. In columns (2)–(5), we sequentially include the individual-level variables, geographic controls, ethnicity-level controls, and the controls at the district level. According to the results in both the top and bottom panels, anglophone respondents exhibit a significantly lower level of trust in chiefs than francophone respondents. Except for some decline in the coefficient from the first to the second column, the results remain significant and stable in all specifications.

4.2. Results from regression discontinuity analysis

Many scholars of African history note the arbitrariness of national borders in Africa.[2] Most of the boundaries were established following the rapid expansion of colonization of the continent in the late 19th and early 20th centuries (Ajala, 1983; Englebert et al., 2002). Rushing to secure more land, European colonizers divided the existing territories, "without taking time to consider demographic, ethnographic, or topographic factors" (Herbst, 1989, 674). The territories, which were confirmed later by treaties among European colonizers, split many closely related communities, which once had similar ethnic, social, economic, and political organizations, into separate countries (Michalopoulos and Papaioannou, 2016). By 1919, when the scramble for Africa was practically completed, up to 44% of African boundaries contained straight lines (Barbour, 1961).

In the discontinuity analysis, given the genesis of national boundaries, we therefore compare observations near the anglophone–francophone national borders in West Africa (Fig. 1). In our data, three anglophone (Ghana, Nigeria, and Sierra Leone) and six francophone countries (Benin, Burkina Faso, Côte d'Ivoire, Guinea, Niger, and Togo) share borders. Such a comparison of the border areas to study colonial legacies in West Africa was first pioneered in the form of qualitative case studies in other social sciences, the assumption being that the areas across the national borders are mostly similar prior to the European partitioning (Asiwaju, 1970; Miles, 1993; Firmin-Sellers, 2000). These case studies show a legacy of the greater power of chiefs in former British colonies. For example, comparing the Hausa chiefs in Nigeria and Niger, Miles (1987) notes that "despite recent efforts to undo respective colonial legacies, the Hausa chiefs of Nigeria remain substantially privileged in power and influence vis-a-vis their counterparts in the Niger Republic."

[2] 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.

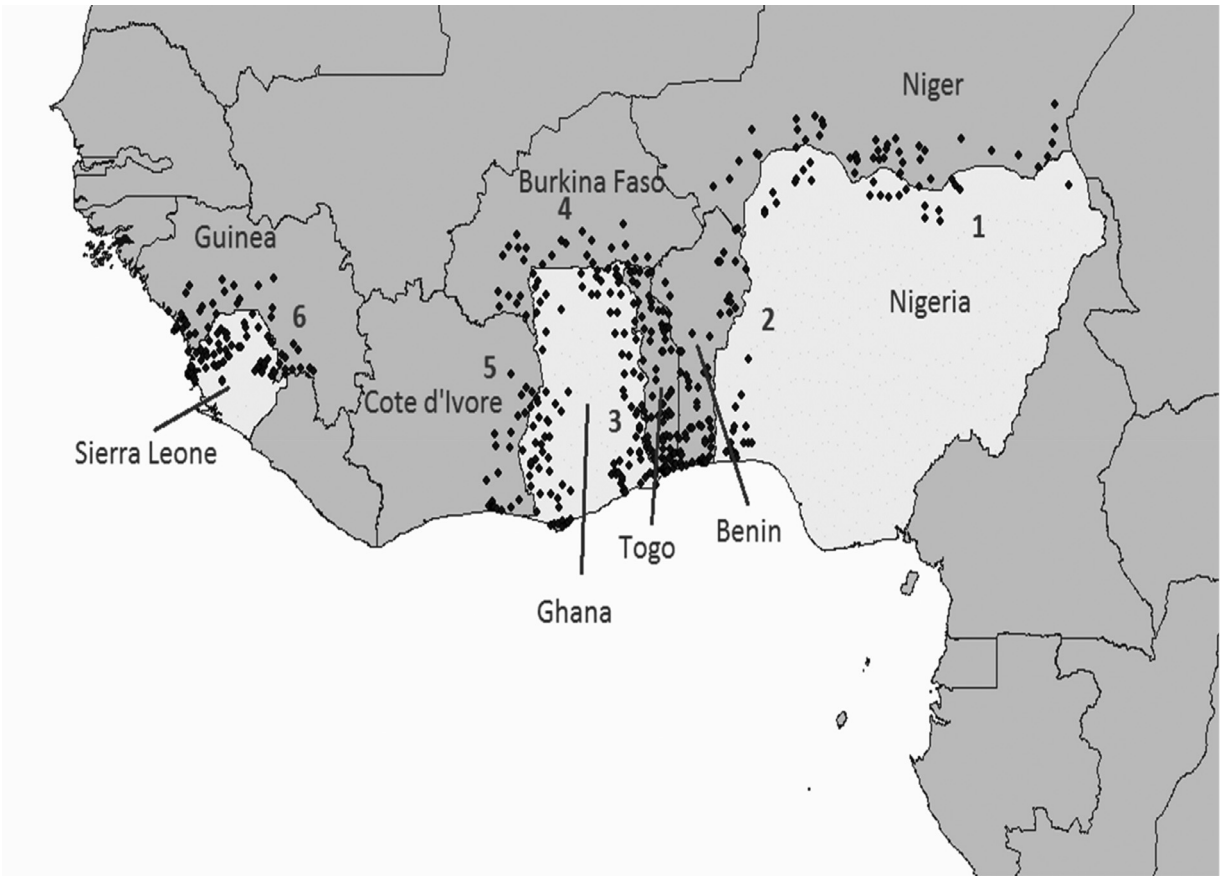

Fig. 1. Anglophone and francophone borders in West Africa.
Note: The figure shows neighboring anglophone and francophone countries in West Africa. The dark gray area represents francophone countries.

The colonial demarcations of West Africa, on which our RD analysis focuses, are emblematic of the colonizers tendency for lack of regard toward local contexts. The "randomness of the colonial partition" in West Africa divided many ethnic groups across national borders between francophone and anglophone countries (Miles, 2015). Lacking knowledge about local situations, the colonizers often resorted to implementing maps that were drawn without taking local conditions into account, such as 11th parallel between Ghana and Burkina Faso. In cases where local factors were taken into account, this was often limited to avoiding splitting small villages and/or using natural structures like small rivers or watersheds (Cogneau and Moradi, 2014), while largely ignoring existing political boundaries in the precolonial political structure. The villages that were spared from partitioning were often too small to constitute independent political units and belonged to larger political units, which themselves were split between national borders. Although physical structures offered an easier way to demarcate borders, they did not necessarily reflect political or ethnic boundaries in precolonial times. For example, although the Mouhoun (Black Volta) River between present-day Ghana and Burkina Faso was viewed as "a line of separation and national identity formation" by colonizers, for the local population, the Mouhoun was "a cosmic agent" with cultural significance that drew people together (Hagberg and Tengan, 2000, 15). Even in cases where there was intense bargaining over land between colonial powers, as in the case of Guinea–Sierra Leone border, the negotiations between the colonial powers centered mostly on scrambling physical resources (such as forests), with little regard for the local population and their existing political or cultural boundaries, in which it partitioned the Kissy people "and even separated families living in the area" (Gberie, 2009).

The pattern of national borders in our RD analysis also does not appear to suggest systematic precolonial differences between what had come to be anglophone and francophone countries. A remarkable feature of these national borders is the degree to which they cross through historical homelands of ethnic groups. Rather than an exception, cutting through historical homelands of ethnic groups is a typical aspect of the borders. From nearly the 5100 km of national borders in our RD analysis, over 80% of the borderlines (about 4200 km) cut through ethnic historical homelands. We also checked the similarities/differences between ethnic homelands across RD borders with respect to precolonial and colonial features. We report this comparison in Table 4. Using the ethnicity-level data on historical homelands that have territories within 100 km of the RD borders, Table 4 presents the mean values of precolonial and colonial variables between historical homelands

Table 4
Moments of precolonial and colonial variables on the francophone and anglophone side of the RD borders.

	Francophone	Anglophone	Difference (p-value)
Intensity of exposure to slave trade	2.76	2.14	0.61
	(8.81)	(6.55)	
Explorer	0.39	0.34	0.55
	(0.49)	(0.48)	
Missionary stations (per km^2) ($\times$ 1000)	0.09	0.09	0.89
	(0.29)	(0.24)	
Precolonial centralization	1.20	1.27	
	(0.92)	(0.91)	
Cities in 1800	0.04	0.07	0.44
	(0.20)	(0.26)	
Railway	0.15	0.22	0.24
	(0.36)	(0.42)	
Obs.	102	58	

Notes: This table presents the means and standard deviations (in parentheses) of precolonial and colonial variables for historical homelands that have territories within 100 km of the RD borders. The statistics are reported for anglophone and francophone sides of the RD borders. *P*-values from two-sided *t*-tests are reported in the last column.

Table 5
Results using all observations in West Africa.

	(1)	(2)	(3)	(4)	(5)
Panel A. Corruption					
Anglophone	0.20***	0.16***	0.17***	0.16***	0.16***
	(0.06)	(0.06)	(0.06)	(0.03)	(0.03)
Observations	15,697	15,697	15,697	15,697	15,697
R^2	0.094	0.120	0.124	0.130	0.131
Individual controls	–	Yes	Yes	Yes	Yes
Geographic controls	–	–	Yes	Yes	Yes
Ethnic controls	–	–	–	Yes	Yes
District controls	–	–	–	–	Yes
Panel B. Trust					
Anglophone	–0.20***	–0.14**	–0.16***	–0.13***	–0.13***
	(0.07)	(0.06)	(0.06)	(0.04)	(0.04)
Observations	16,478	16,478	16,478	16,478	16,478
R^2	0.125	0.178	0.183	0.194	0.194
Individual controls	–	Yes	Yes	Yes	Yes
Geographic controls	–	–	Yes	Yes	Yes
Ethnic controls	–	–	–	Yes	Yes
District controls	–	–	–	–	Yes

Notes: The table shows results for all observations from West Africa. The dependent variable in Panel A, *Corruption I*, is a binary indicator for whether chiefs are corrupt. The dependent variable in Panel B, *Trust I*, is a binary indicator for trust in chiefs. *Anglophone* is a dummy for whether the respondent is from an anglophone country. All columns include a survey-round fixed effect. Columns (2)–(5) further include sets of individual-, geographic-, ethnic-, and district-level controls, respectively. See Table 2 for the detailed description of the set of variables in each column. The double-clustered standard errors at the country- and ethnic homeland-levels are reported in parentheses.
***, **, and * indicate statistical significance, with standard errors at the 1%, 5%, and 10% levels, respectively.

across anglophone and francophone sides of the RD borders. The anglophone and francophone sides of the border areas do not appear to show significant differences. We are keenly aware that data from precolonial and colonial times may not be so accurate (Jedwab and Moradi, 2016; Jedwab et al., 2018). Thus, we consider the comparison in Table 4 not as a conclusive test of pretreatment balance, but as a supplemental evidence in conjunction with the historical context in which the colonial borders were drawn hastily.

Given that so many of the RD borders cut through historical homelands of ethnic groups, we identify the homelands that were split into separate countries and undertake the estimation by using only observations in these ethnic homelands. This enables us to limit the comparison to units that shared relatively similar cultural and geo-political settings in precolonial times.

As a benchmark comparison, we first present the results using all observations in West Africa (Table 5). There are over 16,000 observations in West Africa, covering about 35% of the entire observations in our data set. Panel A in Table 5 reports the results on corruption. Panel B presents the results on trust. In both panels, we report the coefficients using only the binary dependent variables, *Corruption I* and *Trust I*. The estimated coefficients using the alternative dependent variables (*Corruption II* and *Trust II*) yield similar results and are reported in Appendix Table A.1. As in the previous tables, we introduce the controls sequentially. The estimates in Table 5 show a pattern that is consistent with earlier results. The level

Table 6
Results using observations near national borders (radius of 100 km).

	(1)	(2)	(3)	(4)	(5)
Panel A. Corruption					
Anglophone	0.14***	0.11***	0.15***	0.21***	0.21***
	(5.94)	(3.07)	(4.88)	(4.83)	(4.82)
Observations	6623	6623	6623	6623	6623
R^2	0.067	0.086	0.093	0.098	0.098
Individual controls	–	Yes	Yes	Yes	Yes
Geographic controls	–	–	Yes	Yes	Yes
Ethnic controls	–	–	–	Yes	Yes
District controls	–	–	–	–	Yes
Panel B. Trust					
Anglophone	–0.17***	–0.12***	–0.17***	–0.19***	–0.19***
	(6.03)	(7.65)	(7.93)	(6.56)	(6.52)
Observations	7034	7034	7034	7034	7034
R^2	0.118	0.165	0.179	0.182	0.182
Individual controls	–	Yes	Yes	Yes	Yes
Geographic controls	–	–	Yes	Yes	Yes
Ethnic controls	–	–	–	Yes	Yes
District controls	–	–	–	–	Yes

Notes: The table shows results for observations from within 100 km. The dependent variable in Panel A, *Corruption I*, is a binary indicator for whether chiefs are corrupt. The dependent variable in Panel B, *Trust I*, is a binary indicator for trust in chiefs. *Anglophone* is a dummy for whether the respondent is from an anglophone country. All regressions include the RD distance to the borders, border fixed effects, and a survey-round fixed effect. Columns (2)–(5) further include sets of individual-, geographic-, ethnic-, and district-level controls, respectively. See Table 2 for a detailed description of the set of variables in each column. The double-clustered standard errors at the country- and ethnic homeland-levels are reported in parentheses.
***, **, and * significant at the 1%, 5%, or 10% levels, respectively.

of corruption among anglophone chiefs is significantly higher in all columns. Anglophone chiefs also command significantly lower levels of trust.

Turning to the discontinuity results, Table 6 reports the estimated coefficients by focusing on observations close to the borders between anglophone and francophone countries. We use observations within 100 km of the national borders. Robustness checks by altering the radius (for example, 150 km and 200 km) do not change the results. Once again, we report the results using only the binary dependent variables for both corruption and trust, as the alternative indexes for corruption and trust provide similar results (see Table A.2 in the Appendix). Panels A and B show the results for corruption and trust, respectively. In all regressions, we control for distance to the RD border.[3] The empirical patterns for the border discontinuity regressions in Table 6 mimic the earlier results using all observations. The level of corruption is significantly higher among anglophone chiefs. Respondents in anglophone countries also report a lower level of trust in chiefs.

In Table 7, we report results by further restricting our sample to the set of observations from ethnic homelands that are *split* across anglophone–francophone borders. Following Michalopoulos and Papaioannou (2016), we define split ethnic homelands as those for which at least 10% of their territories are found on both sides of a national border. Compared to the number of observations in Table 6, the sample size in Table 7 decreases by about a third.

The important implication of focusing on split homelands is that it allows us to include ethnicity-level fixed effects for each homeland, and hence, estimate the coefficient only using *within* homeland differences between the francophone and anglophone sides of the borders. The fixed-effect estimation has an important advantage of accounting for all ethnicity-level factors, which could have potentially confounding effects on local institutions. Once again, in Table 7, we report results for the binary dependent variables. Estimation results for the alternative dependent variables are similar and are reported in Appendix Table A.3. According to Table 7, the level of corruption among anglophone chiefs is significantly higher (top panel), while trust levels are significantly lower (bottom panel). Thus, despite the substantial reduction in the sample size and accounting for ethnicity-level factors, the coefficient remains consistent with the earlier results.

Fig. 2 and Fig. 3 present a visual display of the level of corruption and trust, respectively, as one crosses the anglophone–francophone borders in the sample. The RD plots offer a more transparent view of the data and help verify, for example, that the results are not driven by some peculiar outliers. The dots in Fig. 2 and Fig. 3, respectively, mark local averages (in 5-km bins) of the outcome variables, *Corruption I* and *Trust I*. They thus represent the share of respondents who report chiefs as corrupt and the share of those who report chiefs as trustworthy. The fitted lines in Fig. 2 represent the correlation between distance to national borders and corruption of chiefs, as measured by the binary dependent variable, *Corruption I*. The fitted line in Fig. 3 represents the relationship between distance to national borders and trust in chiefs (*Trust I*). The fitted lines

[3] In addition to the linear distance to the RD border, we checked robustness of the results by controlling for higher-degree polynomials (second and third degree) in distance to the RD border, and found similar results.

Table 7
Results using within ethnic-homeland variations on observations near national borders (radius of 100 km).

	(1)	(2)	(3)
Panel A. Corruption			
Anglophone	0.29***	0.27***	0.27***
	(6.17)	(5.44)	(5.53)
Observations	4347	4347	4347
R^2	0.095	0.107	0.108
Individual controls	–	Yes	Yes
District controls	–	–	Yes
Panel B. Trust			
Anglophone	–0.29***	–0.24***	–0.24***
	(5.02)	(5.51)	(5.55)
Observations	4646	4646	4646
R^2	0.143	0.174	0.175
Individual controls	–	Yes	Yes
District controls	–	–	Yes

Note: The table shows ethnic homeland fixed effect results on split-by-the-border ethnic homelands within 100 km of the borders between anglophone and francophone countries. The dependent variable in Panel A, *Corruption I*, is a binary indicator for whether chiefs are corrupt. The dependent variable in Panel B, *Trust I*, is a binary indicator for trust in chiefs. *Anglophone* is a dummy for whether the respondent is from an anglophone country. All regressions include the RD distance to the borders, border fixed effects, ethnic homeland fixed effects, and a survey-round fixed effect. Column (2) further includes individual-level variables. Column (3) controls for additional district-level variables. See Table 2 for the detailed description of the sets of individual- and district-level controls included in the regressions. The double-clustered standard errors are reported in parentheses at the country- and ethnic homeland-levels.
***, **, and * indicate statistical significance, with standard errors at the 1%, 5%, or 10% levels, respectively.

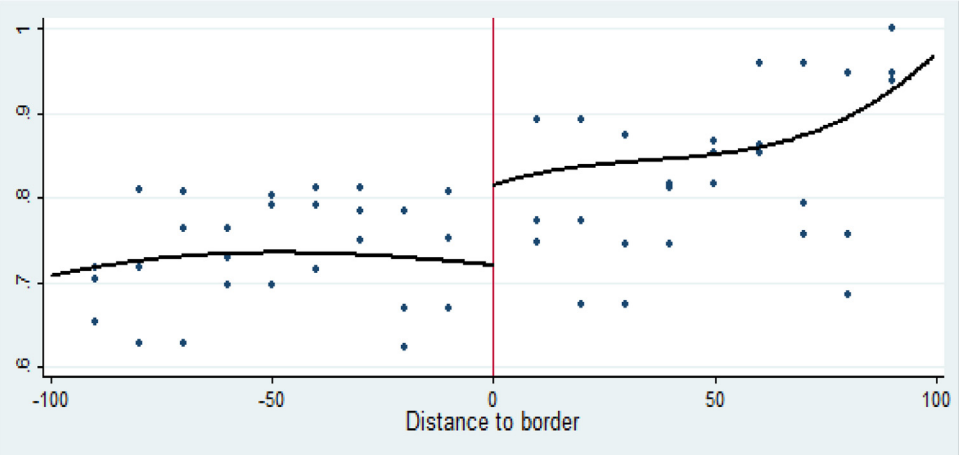

Fig. 2. Corruption of chiefs in West Africa, by distance to anglophone–francophone borders.
Notes: The figure shows, by distance (in km) to the border, the share of respondents who report that chiefs are corrupt. The distance from the francophone–anglophone border increases as we move away from the center point (0) on the *x*-axis. Negative (resp. positive) values represent distance from the border into francophone (resp. anglophone) territories.

in Fig. 2 and Fig. 3 are obtained from a regression of the dependent variables on a third-degree polynomial function of distance.

The patterns in both figures are consistent with the findings in Tables 6 and 7. In Fig. 2, the share of individuals who consider chiefs to be corrupt shows a marked increase on the anglophone side of the border (to the right of the *x*-axis center point). Similarly, in Fig. 3, the share of respondents who report having trust in chiefs displays a notable decrease in the anglophone side of the border.

The RD analysis based on differences within historical homelands of ethnic group helps to limit the comparison to communities that had shared relatively similar cultures prior to the partitioning. However, one could be concerned that cultural differences may arise over time between the populations that were treated from the ones that currently reside along the borders due to migration. For example, respondents in the treatment group could move to the other side of the border, and vice versa. Migration (away from or toward) the border region could also make the sample on which the analysis is based different from the sample that was subjected to the treatment. If such changes in the composition of the population lead to cultural differences between the respondents on the anglophone and francophone sides of the borders, the results could be

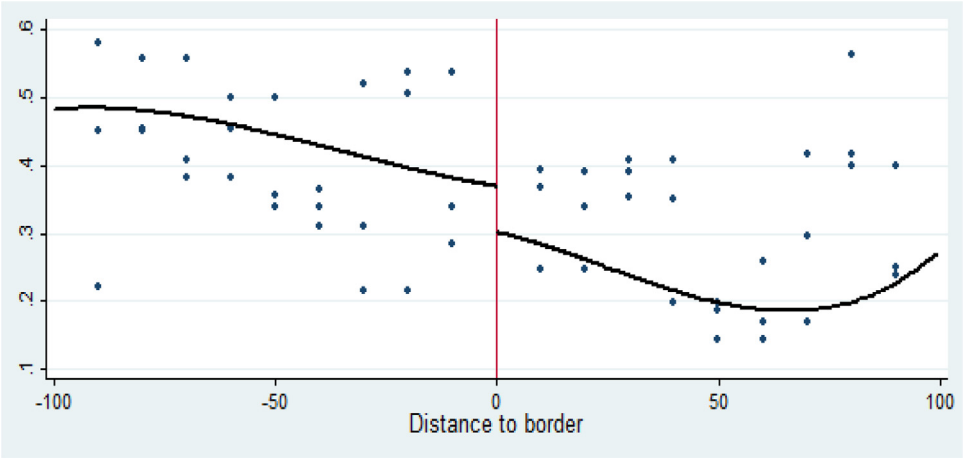

Fig. 3. Trust in chiefs in West Africa, by distance to anglophone–francophone borders.
Notes: The figure shows, by distance (in km) to the border, the share of respondents who report that chiefs are trustworthy. The distance from the francophone–anglophone border increases as we move away from the center point (0) on the *x*-axis. Negative (resp. positive) values represent distance from the border into francophone (resp. anglophone) territories.

Table 8
Results from similar ethnic groups across RD borders and from ethnic homelands portioned by straight-line borders.

	Respondents from same ethnic group		Ethnic homelands split by straight-line borders	
	(1) *Corruption I*	(2) *Trust I*	(3) *Corruption I*	(4) *Trust I*
Anglophone	0.271***	−0.261***	0.268***	−0.259***
	(5.63)	(5.30)	(6.40)	(5.22)
Observations	4275	4567	2133	2276
R^2	0.104	0.173	0.119	0.210

Notes: In columns (1) and (2), we restrict the sample to respondents that reside in their ethnic historical homelands. In columns (3) and (4), the sample is restricted to observations whose historical homelands are split by border lines with a relatively high values of the straightness index (a measure of the extent to which a border looks like a straight line). The dependent variable (*Corruption I* and *Trust I*) are binary indicators for the chiefs' corruption and trust. *Anglophone* is a dummy for whether the respondent is from an anglophone country. All regressions include ethnic homeland fixed effect and the full set of controls: the RD distance to the borders, border fixed effects, a survey-round fixed effect, individual-level variables, and district-level variables. See Table 2 for the detailed description of the sets of individual- and district-level controls included in the regressions. The double-clustered standard errors are reported in parentheses at the country- and ethnic homeland-levels.
***, **, and * indicate statistical significance, with standard errors at the 1%, 5%, or 10% levels, respectively.

confounded by cultural differences between anglophone and francophone respondents toward the institution of chieftaincy, as opposed to the level of actual accountability by chiefs. We do not have data on the migration status of respondents and their predecessors. However, we have data on the ethnic identity of respondents from the Afrobarometer survey. We matched this information to identify respondents that reside in their historical homelands from those that do not. Thereafter, we ran the regressions limiting the sample only to respondents who are residing in their historical homelands. That is, the respondents we compare not only reside in the partitioned historical homelands, but they are also of similar ethnic groups. Since the traditions of chieftaincy institutions are mostly based on one's tribe, the focus on respondents with similar ethnic groups helps to narrow the comparison among respondents with relatively similar cultures (Nunn and Wantchekon, 2011). In columns (1) and (2) of Table 8, we report the results limiting our sample to respondents that reside in their ancestral homelands. For brevity, we only report the results with the full set of controls. The results from this sample of respondents with similar ethnicity also show that anglophone respondents report a higher level of corruption (column [1]) and a lower level of trust (column [2]), suggesting that cultural differences between francophone and anglophone respondents do not drive the results

In addition to limiting the sample to split homelands, we undertake a robustness check by further focusing on those homelands that were less likely to be split by natural boundaries, such as small rivers. We do this by focusing on historical homelands that were split by national borders with mostly straight lines. For each historical homeland, we first compute (1) the length of the border partitioning the homeland across the national border; and (2) the length of the straight line

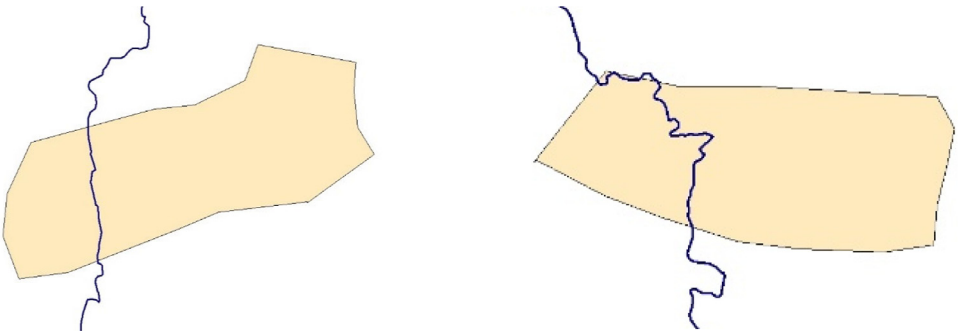

Fig. 4. Historical homelands of the partitioned ethnic groups Tribu (left) and Chakossi (right).
Notes: The broken line shows the outer borders of the ethnic homelands. The thick lines represent the national borders partitioning the homelands.

connecting the end points of the partitioning border. Then, we construct a "straightness index," which equals the ratio of the length of the straight line in (2) to the length of the border in (1). Note that the straight line represents the shortest possible line connecting the two points. Thus, the more the partitioning border deviates from the straight line, so that the former is longer than the latter, the lower will be the ratio of the length of the latter to that of the former (that is, the straightness index). In columns (3) and (4) of Table 8, we ran the regressions limiting the analysis to those observations in homelands that were split by relatively straight lines. We do this by dropping observations from historical homelands whose straightness index is below the 25 percentile. Fig. 4 presents an example of the kind of homelands that are included and dropped. The left and right panels, respectively, show the historical homelands of the Tribu and Chakossi ethnic groups, both of which are found between Ghana and Togo. The Tribu homeland has a high value of straightness index (0.96), and hence, it is included in the estimation sample in Table 8. In contrast, with a low straightness indexes of 0.67, observations from the Chakossi homeland are dropped from the estimation sample. The results in Table 8 show a similar pattern—anglophone respondents report a higher level of corruption (column [3]) and a lower level of trust (column [4]).

4.3. Controlling for legal origin

As noted in the introduction, the economics literature on legal origins emphasizes the differences between the British legal system of common law and the French civil law. A central thesis of the legal origins theory is that, compared to the civil law, the common law allows property owners to constrain the sovereign from expropriation (La Porta et al., 1999, 2008). Consistent with this thesis, cross-country empirical studies have shown that formerly British colonies that inherited the common law tend to have lower levels of corruption than countries that adopted the civil law (Treisman, 2000; La Porta et al., 2004; Angeles and Neanidis, 2015). All the countries in our sample also adopted the legal system of their colonizers. Thus, we examine whether some of the effect in our regressions could be due to the differences in the degree of accountability in the judiciary. If one assumes that the level of corruption in the judiciary differs between francophone and anglophone countries, owing to differences in legal origins, one could expect this difference in the judiciary to affect overall corruption in the society, including the corruption of chiefs.

The Afrobarometer survey gathers information from the respondents about their level of trust in the courts and the extent of corruption among judges. Respondents answer the question about their level of trust in the courts by choosing either of the four options: not at all, just a little, somewhat, or a lot. Regarding the corruption of the judiciary, respondents are asked how many of the judges and magistrates are corrupt, to which they answer by selecting either of the four options: none, some of them, most of them, or all of them.

In Table 9, we report results by including controls for trust in courts and the corruption of judges. The control for trust in courts is a dummy for whether the respondent answers "somewhat" or "a lot" (as opposed to "not at all" or "just a little"). The control for corruption of judges is a dummy for whether the respondent answers "none" (as opposed to "some of them," "most of them," or "all of them"). We checked robustness of the results, by including the more flexible option of including indicators (a total of six dummies) to each of the answers to the questions on the level of trust in courts and corruption among judges/magistrates, and found similar results. According to Table 9, the estimated coefficient on *Anglophone* remains essentially the same, suggesting that differences in the judiciary, as emphasized in the legal origins theory, do not explain the differences in corruption of chiefs. In the context of Africa, this result, perhaps, is not surprising. The distinction between British and French legal origins is based on differences in formal state institutions between the two legal systems, such as greater independence of the judiciary under the British one. However, in the context of colonial Africa where the central state was weak, colonial powers controlled the population mostly through chiefs, instead of through the central state (Crowder, 1964). The reach of the central state still remains minimal in much of rural Africa (Herbst, 1989). Thus, although a number of cross-country regressions on legal origins appear to signify the empirical validity of this thesis in many contexts, its relevance to Africa is limited.

Table 9
Results controlling for trust in the courts and the corruption of judges/magistrates.

	(1)	(2)	(3)
Panel A. Corruption			
Anglophone	0.246***	0.232***	0.231***
	(7.20)	(6.21)	(6.20)
Observations	4075	4075	4075
R^2	0.259	0.265	0.265
Individual controls	–	Yes	Yes
District controls	–	–	Yes
Panel B. Trust			
Anglophone	–0.307***	–0.271***	–0.272***
	(8.72)	(8.08)	(7.61)
Observations	4123	4123	4123
R^2	0.197	0.220	0.220
Individual controls	–	Yes	Yes
District controls	–	–	Yes

Notes: All columns control for trust in the courts and the corruption of judges/magistrates. The dependent variable in Panel A, *Corruption I*, is a binary indicator for whether chiefs are corrupt. The dependent variable in Panel B, *Trust I*, is a binary indicator for trust in chiefs. *Anglophone* is a dummy for whether the respondent is from an anglophone country. All regressions include the RD distance to the borders, border fixed effects, ethnic homeland fixed effects, and a survey-round fixed effect. Column (2) further includes individual-level variables. Column (3) controls for additional district-level variables. See Table 2 for the detailed description of the sets of individual- and district-level controls included in the regressions. The double-clustered standard errors are reported in parentheses at the country- and ethnic homeland-levels.
***, **, and * indicate statistical significance, with standard errors at the 1%, 5%, or 10% levels, respectively.

5. Conclusion

The association between lower levels of corruption and British colonial rule has been emphasized by the literature (La Porta et al., 2008). The legal origins literature underscores the supremacy of the British legal system in ensuring the accountability of state institutions, such as the executive and the judiciary. However, in the context of Africa, British colonial rule may have contributed to higher levels of corruption among chiefs. In colonial Africa, much of the control happened through chiefs, rather than the central state. Hence, the formal legal systems introduced by the colonial powers, while mostly applicable to the central state, had limited relevance for governing much of the population. The British colonial rule also gave greater autonomy to chiefs than they had in precolonial times, which bolstered their power and undermined their accountability to the local population. The entrenchment of chiefs' power under the system of native administration during colonization, therefore, raises an important question of whether the legacy of British rule contributed to an increased level of corruption among chiefs.

The empirical results reveal a pattern consistent with this view. Using microdata from nationally representative surveys in anglophone and francophone countries in Africa, we find that corruption among anglophone chiefs is significantly higher than that of francophone chiefs. We also find that anglophone chiefs command a significantly lower level of public trust. The results are robust across alternative specifications and samples. They hold in the sample of all observations in our data, as well as from the regression discontinuity analysis that focuses on observations near the borders, where ethnic homelands were split between anglophone and francophone countries.

Chiefs remain significantly relevant in the political economy of contemporary Africa. They were also central in the colonial rule. In their interaction with colonizers, chiefs not only influenced how colonizers ruled Africa, but they were also reshaped by the strategy of colonizers. Thus, the quest into the political economy of African institutions calls for the challenging task of understanding the legacy of the complex interactions between chiefs and their colonial rulers. Taking this "dual" legal and institutional environment in Africa into consideration, our finding of a positive association between British rule and the level of corruption among chiefs underscores an important qualification to the empirical patterns in the existing literature on the legacy of British rule on corruption.

Declaration of Competing Interest

None.

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Appendix A: Further results

Tables A.1–A.3.

Table A.1
Results using all observations in West Africa: the dependent variables are *Corruption II* (Panel A) and *Trust II* (Panel B).

	(1)	(2)	(3)	(4)	(5)
Panel A. Corruption					
Anglophone	0.45***	0.39***	0.42***	0.38***	0.38***
	(0.10)	(0.10)	(0.10)	(0.06)	(0.06)
Observations	15,697	15,697	15,697	15,697	15,697
R^2	0.083	0.103	0.107	0.112	0.112
Individual controls	–	Yes	Yes	Yes	Yes
Geographic controls	–	–	Yes	Yes	Yes
Ethnic controls	–	–	–	Yes	Yes
District controls	–	–	–	–	Yes
Panel B. Trust					
Anglophone	−0.40***	−0.29***	−0.32***	−0.24***	−0.24***
	(0.13)	(0.09)	(0.10)	(0.09)	(0.09)
Observations	16,478	16,478	16,478	16,478	16,478
R^2	0.097	0.159	0.166	0.175	0.176
Individual controls	–	Yes	Yes	Yes	Yes
Geographic controls	–	–	Yes	Yes	Yes
Ethnic controls	–	–	–	Yes	Yes
District controls	–	–	–	–	Yes

Notes: The table shows results for observations from West Africa. The dependent variable in Panel A, *Corruption II*, assumes values ranging from 1 to 4, with higher values corresponding to greater degrees of corruption among chiefs. The dependent variable in Panel B, *Trust II*, assumes values range from 1 to 4, with higher values corresponding to a higher level of trust in chiefs. Anglophone is a dummy for whether the respondent is from an anglophone country. All columns include a survey-round fixed effect. Columns (2)–(5) further include sets of individual-, geographic-, ethnic-, and district-level controls, respectively. See Table 2 for the detailed description of the set of variables in each column. The double-clustered standard errors are reported in parentheses at the country- and ethnic homeland-level.
***, **, and * indicate statistical significance, with standard errors at the 1%, 5%, or 10% levels, respectively.

Table A.2
Results using observations near national borders (radius of 100 km): the dependent variables are *Corruption II* (Panel A) and *Trust II* (Panel B).

	(1)	(2)	(3)	(4)	(5)
Panel A. Corruption					
Anglophone	0.40***	0.35***	0.39***	0.49***	0.50***
	(7.61)	(5.15)	(5.83)	(6.03)	(6.15)
Observations	6623	6623	6623	6623	6623
R^2	0.074	0.090	0.096	0.099	0.099
Individual controls	–	Yes	Yes	Yes	Yes
Geographic controls	–	–	Yes	Yes	Yes
Ethnic controls	–	–	–	Yes	Yes
District controls	–	–	–	–	Yes
Panel B. Trust					
Anglophone	−0.40***	−0.27***	−0.34***	−0.41***	−0.41***
	(2.99)	(3.45)	(3.37)	(4.50)	(4.48)
Observations	7034	7034	7034	7034	7034
R^2	0.110	0.169	0.185	0.189	0.189
Individual controls	–	Yes	Yes	Yes	Yes
Geographic controls	–	–	Yes	Yes	Yes
Ethnic controls	–	–	–	Yes	Yes
District controls	–	–	–	–	Yes

Notes: The table shows results using observations near national borders (radius of 100 km). The dependent variable in Panel A, *Corruption II*, assumes values ranging from 1 to 4, with higher values corresponding to greater degrees of corruption among chiefs. The dependent variable in Panel B, *Trust II*, assumes values range from 1 to 4, with higher values corresponding to a higher level of trust in chiefs. Anglophone is a dummy for whether the respondent is from an anglophone country. All regressions include RD distance to the borders, border fixed effects, and a survey-round fixed effect. Columns (2)–(5) further include sets of individual-, geographic-, ethnic-, and district-level controls, respectively. See Table 2 for a detailed description of the set of variables in each column. The double-clustered standard errors are reported in parentheses at the country and ethnic homeland levels.
***, **, and * indicate statistical significance, with standard errors at the 1%, 5%, or 10% levels, respectively.

Table A.3
Results using within ethnic-homeland variations on observations near national borders (radius of 100 km): the dependent variables are *Corruption II* (Panel A) and *Trust II* (Panel B).

	(1)	(2)	(3)
Panel A. Corruption			
Anglophone	0.62***	0.59***	0.59***
	(5.60)	(6.99)	(7.31)
Observations	4347	4347	4347
R^2	0.097	0.107	0.108
Individual controls	–	Yes	Yes
District controls	–	–	Yes
Panel B. Trust			
Anglophone	−0.70***	−0.56***	−0.58***
	(4.06)	(4.98)	(5.78)
Observations	4646	4646	4646
R^2	0.144	0.184	0.185
Individual controls	–	Yes	Yes
District controls	–	–	Yes

Notes: The table shows results from within ethnic-homeland variations, using observations from split-by-the-border ethnic homelands that are within 100 km of the borders between anglophone and francophone countries. The dependent variable in Panel A, *Corruption II*, assumes values ranging from 1 to 4, with higher values corresponding to greater degrees of corruption among chiefs. The dependent variable in Panel B, *Trust II*, assumes values range from 1 to 4, with higher values corresponding to a higher level of trust in chiefs. Anglophone is a dummy for whether the respondent is from an anglophone country. All regressions include RD distance to the borders, border fixed effects, ethnic homeland fixed effects, and a survey-round fixed effect. Column (2) further includes individual-level variables. Column (3) controls for additional district-level variables. See Table 2 for the detailed discretion of the set of individual- and district-level controls included in the regressions. The double-clustered standard errors are reported in parentheses at the country and ethnic homeland levels.
***, **, and * indicate statistical significance, with standard errors at the 1%, 5%, or 10% levels, respectively.

Appendix B: Variables and data sources

Afrobarometer variables

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

Chief corruption. An individual-level index indicating respondent's opinion about the corruption of chiefs; see Section 3. Survey questions: Q50H from Round 4, and Q53H from Round 6.

Trust in chiefs. An individual-level index reporting respondent's trust in chiefs; see Section 3. Survey questions: Q49I from Round 4, and Q52Q 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.

Age. Age of the respondent, ranging from 18 to 105. Survey question: Q1.

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 Round 4, and Q97 from Round 6.

Education. Dummies for the respondents' level of education attained based on nine education attainment groups. Survey questions: Q89 from Round 4, and Q97 from Round 6.

Religion. Dummies for eight religious groups. Survey question: Q98A.

Gender. An indicator variable for the respondent's gender. Survey question: Q101.

Wealth. Z-score of three dummies for the ownership of a radio, a television, or an automobile. Survey questions: Q92A-C from Round 4 and Q90A-C from Round 6.

Trust in courts of law. Measures the respondent's level of trust in courts of law; see Section 4.3. Survey questions: Q49H from round 4, and Q52J from round 6.

Corruption of judges/magistrates. An individual-level index indicating respondent's opinion about the corruption of judges/magistrates; see Section 4.3. Survey questions: Q50G from Round 4, and Q53G from Round 6.

Other variables

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

Region indicators. East Africa includes Tanzania, Kenya, Uganda, and Madagascar; West Africa includes Benin, Burkina Faso, Côte d'Ivoire, Ghana, Guinea, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo.

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 fractionalization. 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) and Nunn and Wantchekon (2011).

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 precolonial 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 nighttime light density per square kilometer 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.

Malaria stability index, diamond mine indicator, and *oil field indicator*. Source: Michalopoulos and Papaioannou (2013).

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