# Online Appendix

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### **A** Theory Appendix

#### A.1 Formal Presentation of the Theory

Setup. A representative European actor E and a representative African actor A interact in a one-shot game that determines who sets policy. They have respective economic endowments  $\omega_E > 0$  and  $\omega_A > 0$  that can be redistributed depending on which player sets policy. Although it is natural to assume  $\omega_E > \omega_A$ , no results require this assumption. E moves first and decides whether to grant majority rule or to repress. Granting majority rule implies that A sets policy, described below. If E represses, with probability  $w \in (0,1)$ repression succeeds and E sets policy. With complementary probability 1 - w, repression fails and A makes a choice between liberation war and acquiescing to minority rule. A liberation war succeeds with probability 1 and A gains control of all assets in the country. If A acquiesces to minority rule, then Esets policy. Repression without a liberation war destroys  $\phi \cdot \mu$  percent of total wealth, for  $\phi \in (0, 1)$  and  $\mu \in (0,1)$ , and a liberation war destroys  $\mu$  percent of total wealth. After these initial moves to determine which player sets policy—except following a liberation war, after which there are no additional choices the actor with agenda-setting power proposes a percentage of the other player's wealth to transfer to itself. Thus, if E is the agenda setter, then it proposes to redistribute  $r_E \in [0, 1]$  percent of A's wealth to itself; and if A is the agenda setter, then it proposes to redistribute  $r_A \in [0, 1]$  percent of E's wealth to itself. The out-of-power actor can either accept the transfer proposal or choose economic exit. Exercising the economic exit option allows the out-of-power player to prevent redistribution to the policymaker, but only retains a fraction of its wealth:  $\sigma_E \in [0, 1]$  percent for E and  $\sigma_A \in [0, 1]$  percent for A. Figure A.1 presents the game tree.





*Analysis.* The formal analysis solves backwards to characterize the unique subgame perfect Nash equilibrium. In the policy stage, the out-of-power actor will accept any redistribution proposal that leaves it no worse off than exercising its economic exit option. Therefore, in equilibrium:

$$r_E^* = 1 - \sigma_A \tag{A.1}$$

$$r_A^* = 1 - \sigma_E \tag{A.2}$$

At the liberation war information set, C will fight a liberation war rather than acquiesce to minority rule if liberation wars are not too destructive. This requires:

$$\mu < \overline{\mu} \equiv \frac{\omega_E + (1 - \sigma_A) \cdot \omega_A}{\omega_E + (1 - \phi \cdot \sigma_A) \cdot \omega_A},\tag{A.3}$$

and therefore Assumption 3 is equivalent to stating  $\mu < \overline{\mu}$ .

E expands the franchise only if the amount of redistribution under majority rule is low relative to the possibility of repression succeeding and preserving minority rule. Equation A.2 shows that redistribution under majority rule strictly decreases in the value of E's economic exit option. Therefore, E grants majority rule

only if  $\sigma_E$  is sufficiently high:

$$\sigma_E > \overline{\sigma}_E \equiv w \cdot (1 - \phi \cdot \mu) \cdot \left[ 1 + (1 - \sigma_A) \cdot \frac{\omega_A}{\omega_E} \right]$$
(A.4)

Notably, *E*'s calculus in Equation A.4 is premised on *A* fighting a liberation war if repression fails. These considerations yield the unique subgame perfect Nash equilibrium strategy profile.

**Proposition A.1** (Equilibrium). Assume  $\mu < \overline{\mu}$ , for  $\overline{\mu}$  defined in Equation A.3. If  $\sigma_E > \overline{\sigma}_E$ , then E grants majority rule, for  $\overline{\sigma}_E$  defined in Equation A.4. If instead  $\sigma_E < \overline{\sigma}_E$ , then E represses. At the liberation war information set, A initiates a liberation war. If A sets the policy, then it chooses  $r_A = r_A^*$ , for  $r_A^*$  defined in Equation A.2. If E sets the policy, then it chooses  $r_E = r_E^*$ , for  $r_E^*$  defined in Equation A.1.

This equilibrium statement yields two possible equilibrium paths of play:

- If E grants majority rule, then fighting does not occur along the equilibrium path. E chooses this strategy only if its economic exit option is sufficiently valuable, which prevents large amounts of redistribution under majority rule.
- If *E* represses, then a liberation war occurs with positive probability along the equilibrium path (specifically, if repression fails). *E* chooses this strategy only if its economic exit option is low-valued, and therefore considerable redistribution will occur under majority rule.

#### A.2 Relationship to Existing Models

One notable departure in the present model from Boix (2003) and Acemoglu and Robinson (2006) is that the policy is a redistributive transfer from one actor to the other, as opposed to a lump sum transfer. Therefore, whereas their models build on the core setup in Meltzer and Richard (1981), the present model does not. A previous draft of the present paper presented a similar model as in Figure A.1 except it assumed lump sum transfers, showing similar results as in the final version of the model. However, assuming asymmetric redistribution better fits the substantive context of colonial Africa—Europeans imposed many tax and non-tax burdens on Africans during colonial rule, and Africans redistributed Europeans' assets after independence—and simplifies the steps needed to solve for an optimal tax rate. The Meltzer-Richard framework is useful for generating predictions that relate economic inequality to the amount of redistribution under democracy and to political transition paths, whereas the present analysis focuses on asset specificity and economic exit as key constraints on redistribution. Economic inequality, without incorporating considerations about asset specificity, does not appear to be a first-order explanation for divergent decolonization paths in Africa. All colonies, settler or not, featured a highly unequal distribution of resources between Europeans and Africans. However, despite this departure from existing redistributive models, the current model retains the core insight that prospects for peaceful rather than conflictual transitions depend on the expected amount of redistribution under majority rule.

#### A.3 Model Extension with European Metropole Actor

Redistributive transition models focus solely on domestic actors. Although domestic conditions in colonial Africa closely match the scope conditions of the theory, the colonial setting suggests also studying the European metropole. There are two natural ways to incorporate divisions between European settlers and European metropolitan actors into the model. The easiest is to allow rich agents to differ in the value of their economic exit option,  $\sigma_E$ , and to assume that the balance of political power between the metropole and settlers determines which player chooses the strategic actions in the game. The evidence that European settlers wielded considerable political influence implies that, under substantively relevant assumptions, this more complicated model would yield similar implications as the baseline model.

A less reduced form way to incorporate the metropole into the model is to make it a distinct actor. Consider the following simple extension of the baseline game. In the first move of the game, the metropole (M)decides whether to directly rule the colony or to delegate control to colonial administrators. If it takes direct control, then the metropole makes all the strategic decisions for the European actor depicted in Figure A.1, and the "colonial agent" actor E from the baseline game consumes 0. However, direct rule imposes a cost on the metropole of c > 0 that corresponds to direct administration costs, electoral penalties suffered from losing support among the colonial lobby, and possible physical violence involved with wrestling colonial control away from Europeans within the colony. Therefore, to determine the metropole's utility under direct rule, replace every E node with M in Figure A.1. Based on its choices, M consumes the amount stated in the tree for E, minus the cost c. If instead the metropole delegates control, then M consumes 0 and the remainder of the game is identical to the baseline, with the non-metropole actor E making choices and consuming the associated amounts stated in Figure A.1.

Even if the metropole prefers different policies than the colonial agent (E), M will delegate authority if c is sufficiently high. The key argument is that this cost was indeed high in settler colonies, which relates to the evidence provided about the political influence of European settlers and their lobbies. Additional evidence from Kenya and Rhodesia (Zimbabwe) provides further corroboration. As noted, European settlers in Kenya exerted substantial influence on British colonial policy through the early 1950s. Unwilling to consider any

degree of reforms before the Mau Mau rebellion began in 1952, "when James Griffiths, Colonial Secretary in the reformist Attlee Labour Government, visited Kenya in 1951, the settlers 'indicated that any [political] changes imposed on us against our wishes would be resisted, even to the extent of unconstitutional action" (611). However, Kenya is an instructive case because settlers' power weakened over time. Specifically, the Mau Mau revolt plausibly lowered *c*, and colonial policy changed as anticipated when the metropole dictates policy. British troops were required to suppress the rebellion, at the cost of thousands of lives and more than 20 million pounds. It demonstrated that "small bodies of British settlers—like those in Kenya, Tanganyika [Tanzania], Nyasaland [Malawi], and Northern Rhodesia [Zambia]—were incapable of defending themselves. It also showed that the multiracial constitutions in these countries would be effective only as long as British force was available to underpin them" (Oliver and Atmore, 2005, 256). Kenyan settlers' dependence on Britain enabled the metropole to control the pace of subsequent decolonization reforms against the will of the settlers. This included an agreement in 1960 that the Legislative Council would contain an African majority, to which the leader of the right-wing United Party responded: "I regard the outcome of this conference as a death blow to the European community in Kenya" (Wasserman, 1976, 44-5).

By contrast, white settlers in Rhodesia (Zimbabwe) were able to go it alone despite considerable opposition from Britain because Rhodesia contained a larger settler population that was also well-organized politically and militarily. This kept *c* high even in the face of African resistance. Before Rhodesia's unilateral declaration of independence in 1965, Britain attempted to negotiate broader political rights for Africans (Spiro, 1963). And, after the independence declaration, Britain succeeded at lobbying United Nations' members from recognizing an independent Rhodesian state. However, despite Rhodesia's intransigence, "no country in the outside world was prepared to intervene by force of arms—certainly not Britain, which was still in international law responsible for Rhodesia" (Oliver and Atmore, 2005, 279). Rhodesian whites' control of the colonial military enabled it to withstand attacks from the African rebel groups ZANU and ZAPU for over a decade before the Rhodesian government agreed to British-brokered negotiations with African leaders in 1979.

### **B** Additional Data Information

#### **B.1** Additional Details for Sample

The core sample consists of every mainland African country (including North Africa) plus Madagascar that gained African majority rule following Western European colonial rule. Two exceptions are Libya and Somalia. Italy's defeat in World War II placed these colonies under temporary occupation by other European powers and eliminated any possible linkage between colonial-era European settlers and post-WWII violent secession from Italy. Indeed, most of Libya's fairly large Italian population had emigrated by the end of World War II (Christopher, 1984, 133). By contrast, former German colonies—all of which gained a new colonizer after World War I—are included because they experienced several decades of governance under their new colonizer. Additionally, excluding islands besides Madagascar is essentially equivalent to excluding colonies that lacked an indigenous population, an important scope condition for a theory that focuses on interactions between European migrants and native Africans. Finally, the sample scope conditions exclude Eritrea and South Sudan, which each gained independence from an African rather than from a European government.

#### **B.2** European Population Share

The European population share variable is time invariant and is based on one or multiple data points for each territory between 1945 and 1960. The variable draws from three sources that estimate Western European settlers as a percentage of the population. Lawrence (2010) provides a data point for each French colony between 1946 and 1950, Mosley (1983) for southern British colonies and several others in 1960, and United Nations (1965) for various colonies for up to three years ranging from 1946 to 1961. The latter two sources were identified using the replication data for Easterly and Levine (2016). This yields at least one data point for all but four colonies in the sample. I consulted additional secondary sources for these four that justified coding no settlers for any of them because the sources did not mention a European settler population. This coding rule follows Easterly and Levine (2016), who argue: "colonial histories (which are virtually all written by European historians) are extremely unlikely to fail to mention significant European settlements." For colonies in which multiple sources provided a European settlers estimate, I average the estimates. All the regression results are based on a variable that adds 0.1 to European population percentage and takes the natural log.

Territory	European pop. %	Territory	European pop. %
Sierra Leone	0.0%	Lesotho	0.3%
Gambia	0.0%	Malawi	0.3%
Nigeria	0.0%	Cote d'Ivoire	0.3%
Congo, DRC	0.0%	Congo	0.4%
Chad	0.0%	Guinea-Bissau	0.4%
Burkina Faso	0.0%	Botswana	0.6%
Тодо	0.0%	Madagascar	0.9%
Niger	0.1%	Kenya	1.0%
Mauritania	0.1%	Senegal	1.1%
Sudan	0.1%	Mozambique	1.2%
Central African Republic	0.1%	Djibouti	2.1%
Ghana	0.1%	Swaziland	2.3%
Rwanda	0.1%	Zambia	2.4%
Uganda	0.2%	Equatorial Guinea	2.5%
Benin	0.2%	Morocco	2.7%
Mali	0.2%	Angola	2.7%
Guinea	0.2%	Tunisia	5.5%
Burundi	0.2%	Zimbabwe	6.0%
Tanzania	0.2%	Algeria	10.9%
Cameroon	0.3%	Namibia	12.9%
Gabon	0.3%	South Africa	20.1%

Table B.1: Data for European Population Share and Colonial Liberation Wars

Notes: Bold indicates that the country experienced a major colonial liberation war.

#### **B.3** Colonial Liberation Wars

A major colonial liberation war is defined as a violent struggle against European colonizers—whether ruled by an overseas European country or by Europeans in the African territory—with some evidence of claims for liberation from colonial rule that involves at least 1,000 battle deaths. Although discerning concrete aims of wars can often be difficult, the article discusses how Africa experienced several decades of internal peace after 1919—which itself was preceded by a series of wars to gain initial colonial control, and a handful of anti-tax revolts—prior to the series of post-1945 anti-colonial wars. Therefore, in this region in particular, the pre- and post-1945 periods relatively neatly distinguish between wars to resist initial colonial penetration and wars with more concrete aims to end colonial rule. Every war coded as a liberation war in the present dataset occurred after 1945. Correlates of War's (COW; Sarkees and Wayman, 2010) coding coincides with this argument. COW distinguishes among inter-state, extra-state, intra-state, and non-state wars. Extra-state wars are fought between a member of the inter-state system and a non-member. They further disaggregate extra-state wars into two types: colonial wars in which the non-state member is a colony and "tend to occur when a colony rebels and tries to become independent" (COW codebook), as opposed to imperial wars in which the non-state member is independent. Among wars between Europeans and Africans,

100% of post-1945 extra-state wars are colonial compared to 33% prior to 1945.

I consulted three sources to generate an initial list that includes all wars (except inter-state) fought in colonial Africa since 1945, which Table B.2 lists: Fearon and Laitin's (2003) civil war dataset (FL), COW, and the Armed Conflict Database (ACD; Gleditsch et al., 2002). For both FL and ACD, the conflict is listed under the European metropole. The easiest of these candidate episodes to code as major liberation wars were ones listed as colonial wars by COW (which uses a 1,000 battle death threshold) and in which either COW's or ACD's coding notes clearly indicate the goal was independence: Madagascar, Tunisia, Morocco, Algeria, Cameroon, Angola, Mozambique, and Namibia. Guinea-Bissau also meets the 1,000 battle death threshold (this is FL's threshold as well) and ACD's coding notes shows it exhibited independence aims. COW codes South Africa and Zimbabwe as intra-state wars in which rebels fought to capture the center because these two countries were members of the inter-state system when the war began. In both cases, Africans fought for majority rule.

Kenya's Mau Mau rebellion is more complicated to code because although there were clear goals of expelling Europeans from the quality farmland in the Kenya highlands (Oliver and Atmore, 2005, 255), their independence demands were more vague. Still, some historians have argued that it was truly a nationalist movement (Rosberg and Nottingham, 1966). "The articulation of African grievances was a vital underlying and conditioning factor with regard to the 'Mau Mau Revolution' we shall be examining. For over thirty years, and through a wide variety of African associations, a nationalist ideology was evolved which, to the Kikuyu peasant and worker, came to be symbolized in the expression and demand for 'Land and Freedom.' The tendency of this ideology to become more radical was a reflection of the intensifying struggle between a subordinate African majority, increasingly aware of its potential power, and a ruling European minority, ever fearful that its privileged position might be swept away in the rising current of African nationalism" (Barnett and Njama, 1966, 43). (Mamdani (1996, 189) provides additional citations in the debate over the aims of Mau Mau.) Especially given the post-1945 distinction in type of extra-state wars in Africa, it seems appropriate to code this as a colonial liberation war. However, the sample sensitivity regressions show that none of the results hinge on this coding choice, and even when included Kenya is not an influential observation in the regressions because its European population share was relatively small.

Of the candidate cases, only Rwanda and Western Sahara are not coded as liberation wars. COW codes Rwanda as a non-state war between Hutu and Tutsi in Rwanda in which the Hutu attempted to overthrow the Tutsi monarchy. "Although the Belgian authorities did try to combat the violence, the fighting was basically between the Hutu and the Tutsi peoples" (Sarkees and Wayman, 2010, 531). (See also Encyclopædia Britannica Online Academic Edition (2016).) The Western Sahara conflict did not reach 1,000 battle deaths (ACD codes it as reaching at least 25 battle deaths in two different years, but the cumulative total did not exceed 1,000), which is why neither FL nor COW include it. Also, because Western Sahara was a former Spanish colony that did not gain international independence, it is not included in the sample.

Case	FL (years)	COW (type, years)	ACD (years)
Algeria*	Yes (1954-61)	Yes (colonial, 1954-62)	Yes (1954-62)
Angola*	Yes (1961-75)	Yes (colonial, 1961-74)	Yes (1961-74)
Cameroon*	Yes (1955-60)	Yes (colonial, 1957-8)	Yes (1957-9)
Guinea-Bissau*	Yes (1962-74)	No	Yes (1963-73)
Kenya*	Yes (1952-6)	Yes (colonial, 1952-6)	Yes (1952-6)
Madagascar*	Yes (1947-8)	Yes (colonial, 1947-8)	Yes (1947)
Morocco*	Yes (1953-6)	Yes (colonial, 1953-6)	Yes (1953-6)
Mozambique*	Yes (1964-74)	Yes (colonial, 1964-75)	Yes (1964-74)
Namibia*	No	Yes (colonial, 1975-88)	Yes (1966-88)
Rwanda	Yes (1956-61)	Yes (non-state, 1959-62)	No
South Africa*	Yes (1983-94)	Yes (intra-state, 1987-94)	Yes (1981-8)
Tunisia*	Yes (1952-4)	Yes (colonial, 1952-4)	Yes (1953-6)
Western Sahara	No	No	Yes (1957-8)
Zimbabwe*	Yes (1972-9)	Yes (intra-state, 1972-9)	Yes (1967-8,73-9)

 Table B.2: Source Data for Colonial Liberation Wars

\* indicates coded as a major colonial liberation war in the dataset used for this article.

*Notes*: Table B.2 lists every post-1945 colonial conflict listed in at least one of the source datasets. The table denotes whether or not the war is included in each dataset and, if so, the years. The COW column additionally lists the type of war.

#### **B.4** Franchise Size

The legal enfranchisement data comes from Coppedge and Zimmerman.'s (2016) V-Dem dataset. The variable *v2elsuffrage* measures the percentage of population that is legally enfranchised, and covers every African country since 1945 (including years in which countries were still colonies) in the core sample except Equatorial Guinea, with a handful of years of missing data for some countries.

#### **B.5** Covariates

The following details the rationale and sources for the covariates:

*Pre-colonial democracy.* Hariri (2012) analyzes pre-colonial determinants of democracy. His main finding is that territories with a longer history as a centralized state have experienced less democracy. The state antiquity measure is a weighted average of a territory's combined years with government above the local level. Following Hariri (2012), the state antiquity index is calculated in 1500 and uses Putterman's (2008)

dataset. I coded this variable for African countries excluded from Putterman's (2008) dataset. Hariri (2012) also controls for latitude in his regressions.

*Pre-colonial violence*. Nunn (2008) argues that the most significant interactions between Africans and Europeans prior to colonization involved slave trading. Considering evidence linking a country's slave exports to negative contemporary economic and behavioral outcomes (Nunn and Wantchekon, 2011), colonies with more slave exports might have been more hostile to European colonial rule. I therefore control for Nunn's variable, the log of total slave exports from a territory divided by land area (using modern country borders). It is also possible that territories experiencing more pre-colonial warfare would be more likely to experience conflict during decolonization. Besley and Reynal-Querol (2014) demonstrate a strong positive correlation in Africa between the number of years that a territory (using modern country borders) experienced warfare between 1400 and 1700 and civil war propensity in the post-colonial era, and I control for the log of this variable.

*Geography of rebellion.* Another set of covariates captures geographic factors that existing research argues to affect rebels' opportunities to combat and hide from the state. These include each colony's logged land area (World Bank, 2016) and Nunn and Puga's (2012) rugged terrain index that García-Ponce and Wantchékon (2017) have studied in the context of African decolonization.

*Colonizer identity.* The identity of the colonizer could have influenced both outcomes. Many have argued that Britain had a relatively coherent plan for decolonization and more flexible institutions than did the other colonizers, which diminished prospects for colonial liberation wars (Young, 1970, 488) and increased the likelihood of democratic gains during the colonial and immediate post-colonial period (Weiner, 1987). This contrasted with Fourth Republic France's weak parliamentary system that enabled capture by special interest groups (Spruyt, 2005). Decolonization in Portuguese colonies may be linked to hardline policies associated with authoritarian regime survival (Wilson, 1994). The colonizer identity specifications control for fixed effects for British, French, Portuguese, and Belgian colonialism.

*Other colonial factors.* Lawrence (2013, 132-65) argues that in territories invaded or occupied by Axis powers during World War II, nationalist groups faced an opening that enabled mobilization and increased the likelihood of a liberation war. I used Lawrence's coding of this binary variable for French colonies and coded it myself for the remaining colonies. Woodberry (2012) shows that colonies with larger Protestant

missionary populations tended to experience greater levels of democracy after independence. His variable is number of Protestant missionaries per 10,000 people in 1923. I use the log of this variable because it is heavily right-skewed in Africa.

These specifications also include an indicator variable for post-1945 ruling monarchy, a proxy for very indirect colonial rule. Whereas many African ethnic groups existed as state-like political entities on the eve of colonization, in fewer colonies did the European colonizer allow a monarch to remain in power. In all the cases where one of the main ethnic groups retained a ruling monarch among after 1945, the colonizer had previously struck an agreement with the monarch that granted him wide powers in return for allegiance to the colonizer. Lemarchand (1977) includes case studies of many of these monarchies during the colonial era. To operationalize this concept, I began with Paine's (2018) list of African ethnic groups in the colony (to avoid coding a colony as ruled very indirectly when this was true only for a minor ethnic group), I then coded which ones still had a ruling monarchy in 1945. The focus on monarchs that lasted for most of the colonial era also makes this variable relevant to control for in the instrumental variable regressions because in many colonies with long-lasting monarchs, the colonizer agreed not to alienate land for European settlement even if the land would have been suitable (the introduction to the instrument in the article provides several examples). Burundi, Lesotho, Morocco, Rwanda, Swaziland, Tunisia, and Uganda are coded as post-1945 ruling monarchies.

*Colonial value*. Given the motivation for heterogeneity in colonial value discussed in the article, one specification controls for logged exports per capita and logged natural resource income per capita. Exports per capita uses Correlates of War's (Barbieri and Keshk, 2016; Barbieri, Keshk and Pollins, 2009) exports and population data and is measured in each country's first year of independence. Resource income per capita uses the sum of oil, gas, coal, and metals income from Haber and Menaldo's (2011) dataset and is measured in the country's first year of independence. Both variables for South Africa are measured in 1960, exports for Zimbabwe in 1965, and resource income for Zimbabwe in 1970.

*Standard civil war correlates.* Finally, it is also instructive to evaluate several commonly used covariates in the civil war literature: ethnic fractionalization (Fearon, 2003), population, and income per capita. The latter two are measured in 1950 from Maddison (2008). Following Fearon and Laitin (2003) and the bulk of the existing literature, I use the natural log of each variable.

TSCS legal franchise s	ample, 195	55-1970	
Variable	Mean	Std. Dev.	Ν
Legal franchise %	66.003	42.869	65
ln(European pop %)	-0.547	1.445	65
ln(% area suitable for Eu. agri.)	0.531	2.963	65
Reserved land %	8.122	19.474	50
Private land index	0.196	0.398	57
Latitude	13.701	9.995	65
State antiquity	0.161	0.231	65
ln(Slave exports/area)	0.515	2.218	65
Historical wars	4.283	10.283	65
Rugged terrain	0.919	1.15	65
ln(Area)	12.549	1.481	65
British colony	0.369	0.483	65
French colony	0.458	0.499	65
Portuguese colony	0.074	0.262	65
Belgian colony	0.074	0.262	65
WWII occupied	0.172	0.378	65
ln(Protestant miss.)	-1.553	1.766	65
Post-1945 ruling monarchy	0.172	0.378	65
ln(Exports/pop)	2.636	1.911	65
ln(Resource income/pop)	1.995	2.25	65
ln(Population)	14.678	1.242	65
ln(GDP/capita)	6.619	0.566	65
Ethnic frac.	0.675	0.229	65
Pop. dens. in 1800	5.471	7.376	65
1			
CS liberation w	var sample		
CS liberation w	var sample Mean	Std. Dev.	N
CS liberation w Variable Colonial liberation war	var sample Mean 0.286	<b>Std. Dev.</b> 0.457	N 42
CS liberation w Variable Colonial liberation war ln(European pop %)	var sample Mean 0.286 -0.516	<b>Std. Dev.</b> 0.457 1.456	N 42 42
CS liberation w Variable Colonial liberation war ln(European pop %) ln(% area suitable for Eu. agri.)	var sample Mean 0.286 -0.516 0.439	<b>Std. Dev.</b> 0.457 1.456 2.991	N 42 42 42
CS liberation w Variable Colonial liberation war ln(European pop %) ln(% area suitable for Eu. agri.) Reserved land %	var sample Mean 0.286 -0.516 0.439 8.058	<b>Std. Dev.</b> 0.457 1.456 2.991 19.361	N 42 42 42 33
CS liberation w Variable Colonial liberation war ln(European pop %) ln(% area suitable for Eu. agri.) Reserved land % Private land index	var sample Mean 0.286 -0.516 0.439 8.058 0.189	<b>Std. Dev.</b> 0.457 1.456 2.991 19.361 0.397	N 42 42 42 33 37
CS liberation w Variable Colonial liberation war ln(European pop %) ln(% area suitable for Eu. agri.) Reserved land % Private land index Latitude	var sample Mean 0.286 -0.516 0.439 8.058 0.189 13.376	<b>Std. Dev.</b> 0.457 1.456 2.991 19.361 0.397 10.101	N 42 42 42 33 37 42
CS liberation w Variable Colonial liberation war ln(European pop %) ln(% area suitable for Eu. agri.) Reserved land % Private land index Latitude State antiquity	var sample           Mean           0.286           -0.516           0.439           8.058           0.189           13.376           0.158	<b>Std. Dev.</b> 0.457 1.456 2.991 19.361 0.397 10.101 0.231	N 42 42 42 33 37 42 42
CS liberation w Variable Colonial liberation war ln(European pop %) ln(% area suitable for Eu. agri.) Reserved land % Private land index Latitude State antiquity ln(Slave exports/area)	var sample Mean 0.286 -0.516 0.439 8.058 0.189 13.376 0.158 0.448	<b>Std. Dev.</b> 0.457 1.456 2.991 19.361 0.397 10.101 0.231 2.248	N 42 42 42 33 37 42 42 42
CS liberation w Variable Colonial liberation war ln(European pop %) ln(% area suitable for Eu. agri.) Reserved land % Private land index Latitude State antiquity ln(Slave exports/area) Historical wars	var sample           Mean           0.286           -0.516           0.439           8.058           0.189           13.376           0.158           0.448           4.143	<b>Std. Dev.</b> 0.457 1.456 2.991 19.361 0.397 10.101 0.231 2.248 10.257	N 42 42 42 33 37 42 42 42 42 42
CS liberation w Variable Colonial liberation war ln(European pop %) ln(% area suitable for Eu. agri.) Reserved land % Private land index Latitude State antiquity ln(Slave exports/area) Historical wars Rugged terrain	var sample           Mean           0.286           -0.516           0.439           8.058           0.189           13.376           0.158           0.448           4.143           0.907	<b>Std. Dev.</b> 0.457 1.456 2.991 19.361 0.397 10.101 0.231 2.248 10.257 1.146	N 42 42 42 42 33 37 42 42 42 42 42 42
CS liberation w Variable Colonial liberation war ln(European pop %) ln(% area suitable for Eu. agri.) Reserved land % Private land index Latitude State antiquity ln(Slave exports/area) Historical wars Rugged terrain ln(Area)	var sample           Mean           0.286           -0.516           0.439           8.058           0.189           13.376           0.158           0.448           4.143           0.907           12.498	<b>Std. Dev.</b> 0.457 1.456 2.991 19.361 0.397 10.101 0.231 2.248 10.257 1.146 1.517	N 42 42 42 33 37 42 42 42 42 42 42 42 42
CS liberation wa Variable Colonial liberation war ln(European pop %) ln(% area suitable for Eu. agri.) Reserved land % Private land index Latitude State antiquity ln(Slave exports/area) Historical wars Rugged terrain ln(Area) British colony	var sample           Mean           0.286           -0.516           0.439           8.058           0.189           13.376           0.158           0.448           4.143           0.907           12.498           0.357	<b>Std. Dev.</b> 0.457 1.456 2.991 19.361 0.397 10.101 0.231 2.248 10.257 1.146 1.517 0.485	N 422 422 422 333 377 422 422 422 422 422 422 422 422 422 4
CS liberation wa Variable Colonial liberation war ln(European pop %) ln(% area suitable for Eu. agri.) Reserved land % Private land index Latitude State antiquity ln(Slave exports/area) Historical wars Rugged terrain ln(Area) British colony French colony	var sample           Mean           0.286           -0.516           0.439           8.058           0.189           13.376           0.158           0.448           4.143           0.907           12.498           0.357           0.452	<b>Std. Dev.</b> 0.457 1.456 2.991 19.361 0.397 10.101 0.231 2.248 10.257 1.146 1.517 0.485 0.504	N 422 422 422 422 422 423 335 422 422 422 422 422 422 422 422 422 42
CS liberation wa Variable Colonial liberation war ln(European pop %) ln(% area suitable for Eu. agri.) Reserved land % Private land index Latitude State antiquity ln(Slave exports/area) Historical wars Rugged terrain ln(Area) British colony French colony Portuguese colony	var sample           Mean           0.286           -0.516           0.439           8.058           0.189           13.376           0.158           0.448           4.143           0.907           12.498           0.357           0.452           0.071	Std. Dev.           0.457           1.456           2.991           19.361           0.397           10.101           0.231           2.248           10.257           1.146           1.517           0.485           0.504           0.261	N 42 42 42 42 42 42 42 42 42 42 42 42 42
CS liberation wa Variable Colonial liberation war ln(European pop %) ln(% area suitable for Eu. agri.) Reserved land % Private land index Latitude State antiquity ln(Slave exports/area) Historical wars Rugged terrain ln(Area) British colony French colony Portuguese colony Belgian colony	var sample           Mean           0.286           -0.516           0.439           8.058           0.189           13.376           0.158           0.448           4.143           0.907           12.498           0.357           0.452           0.071	Std. Dev.           0.457           1.456           2.991           19.361           0.397           10.101           0.231           2.248           10.257           1.146           1.517           0.485           0.504           0.261	N 42 41 42 42 42 42 42 42 42 42 42 42 42 42 42
CS liberation wa Variable Colonial liberation war ln(European pop %) ln(% area suitable for Eu. agri.) Reserved land % Private land index Latitude State antiquity ln(Slave exports/area) Historical wars Rugged terrain ln(Area) British colony French colony Portuguese colony Belgian colony WWII occupied	var sample           Mean           0.286           -0.516           0.439           8.058           0.189           13.376           0.158           0.448           4.143           0.907           12.498           0.357           0.452           0.071           0.071           0.167	<b>Std. Dev.</b> 0.457 1.456 2.991 19.361 0.397 10.101 0.231 2.248 10.257 1.146 1.517 0.485 0.504 0.261 0.261 0.377	N 4124 424 424 424 424 424 424 424 422 422
CS liberation wa Variable Colonial liberation war ln(European pop %) ln(% area suitable for Eu. agri.) Reserved land % Private land index Latitude State antiquity ln(Slave exports/area) Historical wars Rugged terrain ln(Area) British colony French colony Portuguese colony Belgian colony WWII occupied ln(Protestant miss.)	var sample           Mean           0.286           -0.516           0.439           8.058           0.189           13.376           0.158           0.448           4.143           0.907           12.498           0.357           0.452           0.071           0.167           -1.503	Std. Dev.           0.457           1.456           2.991           19.361           0.397           10.101           0.231           2.248           10.257           1.146           1.517           0.485           0.504           0.261           0.377           1.779	N 41142 422 422 422 422 422 422 422 422 4
CS liberation wa         Variable         Colonial liberation war         In(European pop %)         In(European pop %)         In(% area suitable for Eu. agri.)         Reserved land %         Private land index         Latitude         State antiquity         In(Slave exports/area)         Historical wars         Rugged terrain         In(Area)         British colony         French colony         Portuguese colony         Belgian colony         WWII occupied         In(Protestant miss.)         Post-1945 ruling monarchy	var sample           Mean           0.286           -0.516           0.439           8.058           0.189           13.376           0.158           0.448           4.143           0.907           12.498           0.357           0.452           0.071           0.167	Std. Dev.           0.457           1.456           2.991           19.361           0.397           10.101           0.231           2.248           10.257           1.146           1.517           0.485           0.504           0.261           0.377           1.779           0.377	N 4124 422 422 422 422 422 422 422 422 42
CS liberation wa         Variable         Colonial liberation war         In(European pop %)         In(European pop %)         In(% area suitable for Eu. agri.)         Reserved land %         Private land index         Latitude         State antiquity         In(Slave exports/area)         Historical wars         Rugged terrain         In(Area)         British colony         French colony         Portuguese colony         Belgian colony         WWII occupied         In(Protestant miss.)         Post-1945 ruling monarchy         In(Exports/pop)	var sample           Mean           0.286           -0.516           0.439           8.058           0.189           13.376           0.158           0.448           4.143           0.907           12.498           0.357           0.452           0.071           0.167           -1.503           0.167           2.622	<b>Std. Dev.</b> 0.457 1.456 2.991 19.361 0.397 10.101 0.231 2.248 10.257 1.146 1.517 0.485 0.504 0.261 0.261 0.261 0.377 1.779 0.377 1.904	N         422           411         411           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412
CS liberation wa         Variable         Colonial liberation war         In(European pop %)         In(European pop %)         In(% area suitable for Eu. agri.)         Reserved land %         Private land index         Latitude         State antiquity         In(Slave exports/area)         Historical wars         Rugged terrain         In(Area)         British colony         French colony         Portuguese colony         Belgian colony         WWII occupied         In(Protestant miss.)         Post-1945 ruling monarchy         In(Exports/pop)         In(Resource income/pop)	var sample           Mean           0.286           -0.516           0.439           8.058           0.189           13.376           0.158           0.448           4.143           0.907           12.498           0.357           0.452           0.071           0.167           -1.503           0.167           2.622           1.931	<b>Std. Dev.</b> 0.457 1.456 2.991 19.361 0.397 10.101 0.231 2.248 10.257 1.146 1.517 0.485 0.504 0.261 0.261 0.377 1.779 0.377 1.904 2.265	N         422           411         411           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412           412         412
CS liberation wa         Variable         Colonial liberation war         In(European pop %)         In(European pop %)         In(% area suitable for Eu. agri.)         Reserved land %         Private land index         Latitude         State antiquity         In(Slave exports/area)         Historical wars         Rugged terrain         In(Area)         British colony         French colony         Portuguese colony         Belgian colony         WWII occupied         In(Protestant miss.)         Post-1945 ruling monarchy         In(Exports/pop)         In(Resource income/pop)         In(Population)	var sample           Mean           0.286           -0.516           0.439           8.058           0.189           13.376           0.158           0.448           4.143           0.907           12.498           0.357           0.452           0.071           0.167           -1.503           0.167           2.622           1.931           14.627	<b>Std. Dev.</b> 0.457 1.456 2.991 19.361 0.397 10.101 0.231 2.248 10.257 1.146 1.517 0.485 0.504 0.261 0.261 0.377 1.779 0.377 1.904 2.265 1.292	<b>N</b> 42 42 42 42 42 42 42 42 42 42 42 42 42
CS liberation wa         Variable         Colonial liberation war         In(European pop %)         In(European pop %)         In(% area suitable for Eu. agri.)         Reserved land %         Private land index         Latitude         State antiquity         In(Slave exports/area)         Historical wars         Rugged terrain         In(Area)         British colony         French colony         Portuguese colony         Belgian colony         WWII occupied         In(Protestant miss.)         Post-1945 ruling monarchy         In(Exports/pop)         In(Resource income/pop)         In(Population)         In(GDP/capita)	var sample           Mean           0.286           -0.516           0.439           8.058           0.189           13.376           0.158           0.448           4.143           0.907           12.498           0.357           0.452           0.071           0.167           -1.503           0.167           2.622           1.931           14.627           6.611	<b>Std. Dev.</b> 0.457 1.456 2.991 19.361 0.397 10.101 0.231 2.248 10.257 1.146 1.517 0.485 0.504 0.261 0.261 0.261 0.377 1.779 0.377 1.904 2.265 1.292 0.566	N           422           422           422           423           3337           422      <
CS liberation wa         Variable         Colonial liberation war         In(European pop %)         In(European pop %)         In(% area suitable for Eu. agri.)         Reserved land %         Private land index         Latitude         State antiquity         In(Slave exports/area)         Historical wars         Rugged terrain         In(Area)         British colony         French colony         Portuguese colony         Belgian colony         WWII occupied         In(Protestant miss.)         Post-1945 ruling monarchy         In(Exports/pop)         In(Resource income/pop)         In(ODP/capita)         Ethnic frac.	ar sample           Mean           0.286           -0.516           0.439           8.058           0.189           13.376           0.158           0.448           4.143           0.907           12.498           0.357           0.452           0.071           0.167           -1.503           0.167           2.622           1.931           14.627           6.611           0.669	<b>Std. Dev.</b> 0.457 1.456 2.991 19.361 0.397 10.101 0.231 2.248 10.257 1.146 1.517 0.485 0.504 0.261 0.261 0.377 1.779 0.377 1.904 2.265 1.292 0.566 0.234	N         1           422         422           422         422           423         333           337         422           422         422

# Table B.3: Summary Statistics

# **C** Additional Information for Initial Statistical Results

### C.1 Discussion of Other Coefficient Estimates in Tables 3 and 4

Tables C.1 and C.2 contain identical specifications as Tables 3 and 4, respectively, but present coefficient estimates for all covariates.

				DV: % po	p. legally enfr	anchised			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ln(European pop %)	-10.93***	-9.798***	-11.75***	-9.683***	-7.896***	-11.44***	-7.480**	-18.41***	-11.52***
	(2.819)	(3.227)	(3.544)	(3.098)	(1.709)	(3.073)	(3.571)	(3.103)	(2.140)
Latitude		-0.593							
		(0.522)							
State antiquity		46.59**							-0.401
		(19.10)							(12.69)
ln(Slave exports/area)			-1.641						
			(2.644)						
Historical wars			-0.497						
			(0.355)						
Rugged terrain				-4.910					
1 ( 4 )				(3.420)					
In(Area)				-2.174					
Deitich actory				(4.058)	04 77***				22 (4***
British colony					24.77***				23.04***
Encycle and and					(0.943)				(0.991)
French colony					$55.71^{****}$				50.80***
Portuguese colony					(0.064)				(0.365)
I offuguese colony					(5.172)				(1 538)
Balgian colony					(3.172)				(4.558)
Dergian colony					(12.47)				(13.97)
WWII occupied					(12.47)	24 12**			5 402
W WH becapied						(10.85)			(6.056)
In(Protestant miss)						-3 746			(0.050)
m(11000stant miss.)						(2.913)			
Post-1945 ruling monarchy						-2.146			
						(6.498)			
ln(Exports/pop)						(	-1.585		
							(1.918)		
ln(Resource income/pop)							-2.478		
· · · · · · · · · · · · · · · · · · ·							(2.514)		
ln(Population)								-1.005	
· •								(3.051)	
ln(GDP/capita)								25.10***	9.490**
								(7.849)	(4.070)
Ethnic frac.								-40.40**	-13.88
								(17.42)	(11.09)
Territory-years	650	650	650	650	650	650	650	650	650
R-squared	0.136	0.185	0.160	0.148	0.418	0.207	0.156	0.217	0.429

Table C.1:	Table 3	Specifications	with	Covariate	Estimates
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*Notes*: Table C.1 summarizes a series of OLS regressions by presenting coefficient estimates for each variable, and country-clustered robust standard error estimates in parentheses. The sample is territory-years from 1955-1970. \*\*\*p < 0.01, \*\* p < 0.05, \* p < 0.1.

				Dv: Major	colonial libe	ration war			
ln(European pop %)	(1) $0.210^{***}$ (0.0263)	(2) 0.196*** (0.0468)	(3) $0.240^{***}$ (0.0332)	(4) $0.204^{***}$ (0.0280)	(5) 0.207*** (0.0314)	(6) 0.178*** (0.0395)	(7) 0.222*** (0.0377)	(8) 0.245*** (0.0496)	(9) 0.202*** (0.0263)
Latitude	(0.0203)	0.00238	(0.0552)	(0.0280)	(0.0314)	(0.0393)	(0.0377)	(0.0490)	(0.0203)
State antiquity		(0.00903) 0.138 (0.286)							
ln(Slave exports/area)			0.0445						
ln(War years 1400-1700)			0.00535 (0.00408)						
Rugged terrain				-0.00615					
ln(Area)				0.0558 (0.0456)					
British colony					0.177				
French colony					0.260				
Portuguese colony					(0.264) 0.821*** (0.273)				0.603***
Belgian colony					(0.273) 0.212 (0.281)				(0.101)
WWII occupied					(0.201)	0.292			
ln(Protestant miss.)						(0.178) 0.0158 (0.0418)			
Post-1945 ruling monarchy						-0.107			
ln(Exports/pop)						(0.110)	-0.00720		
ln(Resource income/pop)							(0.0312) -0.00807 (0.0405)		
ln(Population)							(0.0105)	0.103***	0.110***
ln(GDP/capita)								-0.0637	(0.0295)
Ethnic frac.								(0.136) 0.275 (0.289)	
Territories R-squared	42 0.447	42 0.456	42 0.509	42 0.483	42 0.585	42 0.498	42 0.449	42 0.563	42 0.664

Table C.2: Table 4 Specifications with Covariate Estimates

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*Notes*: Table C.2 summarizes a series of OLS regressions by presenting coefficient estimates for each variable, and robust standard error estimates in parentheses. The unit of analysis is territories and the dependent variable equals 1 if at least one major liberation war began between 1945 and 1989, and 0 otherwise. \*\*\*p < 0.01,\*\* p < 0.05,\* p < 0.1.

It is useful to examine which existing explanations from the literature find support in Tables C.1 and C.2 after accounting for European population share, although none of these theories specifically aim to explain liberation wars or franchise size during African decolonization. In contrast to existing arguments that longer history as a centralized state inhibited democracy in the 20th century (Hariri, 2012), longer state history instead correlates significantly with a larger franchise in Column 2 of Table 3 (albeit becomes insignificant in Column 9), although this is consistent with another implication of Hariri's theory that longer statehood decreased colonial interference. Some existing arguments used to explain higher rates of colonial liberation wars (Axis occupation during World War II; Lawrence, 2013) or post-colonial democracy (Protestant

missionaries; Woodberry, 2012) also do not receive support. Consistent with existing arguments about differences among colonizers, Britain and France expanded the franchise earlier and more broadly whereas Portugal restricted political participation and was more likely to experience liberation wars. Finally, consistent with modernization theory, larger GDP per capita positively covaries with a larger franchise, and territories with larger populations tended to fight liberation wars more frequently (Lawrence, 2010).

### C.2 Supplementary Regression Tables

Table C.3 considers alternative combinations of the covariates from Table 3. The difference in expected franchise size if hypothetically increasing a territory's colonial European population share from Ghana's to Zimbabwe's amount ranges from 22% (73% vs. 51%) in Column 3 to 33% (76% vs. 43%) in Column 1.

	DV: % pc	p. legally enf	ranchised
	(1)	(2)	(3)
ln(European pop %)	-9.668***	-8.947***	-6.403***
	(2.951)	(2.720)	(2.075)
Latitude	-0.780*		-0.697**
	(0.421)		(0.331)
State antiquity	61.58***		4.944
	(22.00)		(13.19)
ln(Slave exports/area)	-2.814		3.582**
	(2.711)		(1.693)
Historical wars	-0.839**		-0.371*
	(0.367)		(0.208)
Rugged terrain	-4.741		-1.514
	(2.960)		(1.449)
ln(Area)	-2.138		1.184
	(3.583)		(2.564)
British colony		22.62**	26.35***
		(8.446)	(6.977)
French colony		52.60***	51.21***
		(8.285)	(6.879)
Portuguese colony		-28.02***	-27.13***
		(6.539)	(6.587)
Belgian colony		25.89	23.53*
		(16.95)	(13.72)
WWII occupied		4.327	1.112
		(6.429)	(5.569)
ln(Protestant miss.)		-1.319	-0.312
		(1.485)	(1.239)
Post-1945 ruling monarchy		-0.280	6.783
		(6.847)	(9.979)
ln(Exports/pop)		2.116**	2.025*
		(0.834)	(1.002)
ln(Resource income/pop)		-0.535	-1.940
		(1.662)	(1.206)
ln(Population)			-0.245
			(2.583)
ln(GDP/capita)			10.62**
			(4.166)
Ethnic frac.			-39.41**
			(17.39)
Territory-years	650	650	650
R-squared	0.253	0.426	0.456

Table C.3:	Alternative	Groupings	of Covariates	for Table 3
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*Notes*: Table C.3 summarizes a series of OLS regressions by presenting coefficient estimates, and country-clustered robust standard error estimates in parentheses. The unit of analysis is territory-years. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.

Table C.4 considers alternative combinations of the covariates from Table 4. The positive difference in predicted probability of a liberation war if hypothetically increasing a territory's colonial European population share from Ghana's to Zimbabwe's amount ranges from 43% (15% vs. 58%) in Column 3 to 76% (4% vs. 80%) in Column 1.

	DV: Major colonial liberation war				
	(1)	(2)	(3)		
ln(European pop %)	0.221***	0.157***	0.125**		
	(0.0503)	(0.0474)	(0.0598)		
Latitude	0.00361		0.00958		
	(0.0101)		(0.0104)		
State antiquity	-0.00813		-0.243		
	(0.336)		(0.551)		
ln(Slave exports/area)	0.0498		-0.0473		
	(0.0352)		(0.0480)		
ln(War years 1400-1700)	0.00337		0.00313		
	(0.00565)		(0.00580)		
Rugged terrain	0.0237		-0.0502		
	(0.0513)		(0.0428)		
ln(Area)	0.0506		-0.112		
	(0.0442)		(0.0900)		
British colony		0.0894	-0.244		
		(0.369)	(0.428)		
French colony		0.214	0.0562		
		(0.411)	(0.461)		
Portuguese colony		0.923**	0.691		
		(0.375)	(0.526)		
Belgian colony		0.242	-0.0946		
		(0.413)	(0.438)		
WWII occupied		0.392**	0.354		
		(0.175)	(0.248)		
ln(Protestant miss.)		0.0703	0.0680		
		(0.0503)	(0.0612)		
Post-1945 ruling monarchy		-0.0593	-0.114		
		(0.126)	(0.263)		
ln(Exports/pop)		-0.0241	0.0238		
		(0.0424)	(0.0390)		
ln(Resource income/pop)		-0.00436	-0.0266		
		(0.0413)	(0.0434)		
ln(Population)			0.188*		
			(0.0993)		
ln(GDP/capita)			-0.0596		
			(0.130)		
Ethnic frac.			0.337		
			(0.368)		
Territories	42	42	42		
R-squared	0.536	0.687	0.792		

Table C.4: Alternative Groupings of Covariates for Table 4

*Notes*: Table C.4 summarizes a series of OLS regressions by presenting coefficient estimates, and robust standard error estimates in parentheses. The unit of analysis is territories. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.

Table C.5 re-runs the Table 4 specifications with probit rather than OLS models.

				DV: Majo	r colonial libe	eration war			
1 (7)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
In(European pop %)	0.829***	(0.198)	(0.380)	0.892***	0.966***	$0.743^{***}$ (0.207)	(0.99'/***	1.460***	$1.2/2^{***}$ (0.325)
Latitude	(0.107)	0.00323	(0.500)	(0.203)	(0.210)	(0.207)	(0.511)	(0.401)	(0.525)
State antiquity		0.588							
ln(Slave exports/area)			0.310						
ln(War years 1400-1700)			(0.200) 0.0277 (0.0215)						
Rugged terrain			(0.0215)	-0.0589					
ln(Area)				(0.305) 0.291 (0.292)					
British colony				(0.272)	0.736				
French colony					1.405				
Portuguese colony					-				
Belgian colony					-				
WWII occupied						0.982			
ln(Protestant miss.)						0.0530			
Post-1945 ruling monarchy						-0.636			
ln(Exports/pop)						(0.385)	-0.0728		
ln(Resource income/pop)							-0.0887		
ln(Population)							(0.134)	0.589**	0.502*
ln(GDP/capita)								(0.234) -0.710 (0.761)	(0.237)
Ethnic frac.								(0.761) 2.558*	2.448*
Territories	42	42	42	42	36	42	42	(1.522) 42	(1.436) 42

Table C.5: Probit Regressions for Table 4

*Notes*: Table C.5 summarizes a series of probit regressions by presenting coefficient estimates, and robust standard error estimates in parentheses. The unit of analysis is territories. The Column 5 specification only contains British and French colonies because there is no variation on the outcome within any other empire, and therefore territories from the other empires are dropped by the probit model. \*\*\*p < 0.01, \*\* p < 0.05, \* p < 0.1.

#### C.3 Sensitivity to Unobserved Covariates

The coefficient estimates for European settlers in Tables 3 and 4 are quite insensitive to omitted variable bias from regressors not included in any of the specifications. A conventional formal heuristic for linear models is to compare the coefficient estimate of the main independent variable from a regression with covariates (denoted as  $\hat{\beta}_{cov}$ ) to the coefficient estimate of the main independent variable from a bivariate regression (denoted as  $\hat{\beta}_{biv}$ ) using the metric:

$$\hat{\alpha} = \frac{\hat{\beta}_{cov}}{\hat{\beta}_{biv} - \hat{\beta}_{cov}} \tag{C.1}$$

Altonji, Elder and Taber (2005) provide an econometric derivation of this metric and González and Miguel (2015, 31) list numerous recent applied articles that use this type of sensitivity analysis. A higher value of  $\hat{\alpha}$ corresponds with a coefficient estimate more robust to hypothetically adding unobservable covariates to the regression. In cases of positive coefficient estimates (as in the colonial liberation war specifications), larger  $\hat{\beta}_{cov}$  in the numerator increases  $\hat{\alpha}$  by implying that selection on unobservables must be of larger magnitude to reduce the coefficient estimate—which already accounts for the confounding influence of the observed covariates—to 0. If  $\hat{\beta}_{biv} - \hat{\beta}_{cov} > 0$ , then a smaller difference between these two denominator terms also raises  $\hat{\alpha}$  by implying that including the observed covariates reduces the bivariate coefficient estimate by less—which in turn implies that adding additional, unobserved, covariates would need to diminish the coefficient estimate by a greater magnitude to eliminate the positive effect estimate. If instead  $\hat{\beta}_{biv} - \hat{\beta}_{cov} < \hat{\beta}_{cov}$ 0, then the estimated effect is *larger* when controlling for observables than in the bivariate regression, which implies that the direction of the bias from omitting unobservables must have the opposite sign as the bias from omitting the observables to eliminate the positive coefficient estimate. This circumstance suggests a highly robust result, at least absent a theory for why the bias from omitting observables should go in the opposite direction as the bias from omitting unobserved covariates. The interpretation is similar for estimates with negative coefficient estimates (as in the franchise size specifications). Larger positive values indicate a greater amount of bias from unobservables needed to explain away the effect estimate, and negative values occur when  $\hat{\beta}_{cov}$  is larger in magnitude than  $\hat{\beta}_{biv}$  and therefore the denominator is positive.

Table C.6 reports  $\hat{\alpha}$  for European population share for each specification with covariates in Tables 3 and 4, thereby comparing the coefficient estimates from Columns 2 through 9—each of which include a different set of observed covariates—with the bivariate coefficient estimate from Column 1 of the corresponding

table. Seven of the 16  $\hat{\alpha}$  values are negative, indicating that bias from unobservables would have to go in the opposite direction as the bias from the included covariates if the true coefficient estimate is 0. Additionally, many of the positive coefficients are quite large. The right-hand side of Equation C.1 goes to infinity as  $\hat{\beta}_{cov} \rightarrow \hat{\beta}_{biv}$ . Therefore, for example, the small gap between the European settler coefficient estimates in Columns 1 and 5 of Table 4 generates a very high value of  $\hat{\alpha}$ . Altonji, Elder and Taber (2005, 155) provide a useful benchmark for interpreting positive values: "We find that selection on unobservables would need to be 3.55 times stronger than selection on observables in the case of high school graduation, which seems highly unlikely" (155). Only two of the values in Table C.6 fall below this threshold: the franchise size regressions with either colonizer fixed effects or colonial value controls. Even here, factors not captured by the covariates would have to be more than two times larger in magnitude than the bias induced by omitting the covariates in order to explain away the estimated European settlers effect.

Tuble Clot Hissessing Dius I	rom c	nobser	vubies	using	Selectio	in on v	505CI (1	ubies
Column in Table 3 or 4:	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
$\hat{\alpha}$ for Eu. pop. share in Table 3	8.7	-14.3	7.8	2.6	-22.3	2.2	-2.5	-19.4

35.6

74.7

5.6

-18.3

-6.9

26.9

Table C.6: Assessing Bias from Unobservables using Selection on Observables

*Notes*: Table C.6 computes  $\hat{\alpha}$  from Equation C.1 for all eight multiple regression specifications in each of Tables 3 and 4.

-7.8

13.9

 $\hat{\alpha}$  for Eu. pop. share in Table 4

### C.4 Robustness to Alternative Time Periods

				DV: % pc	op. legally enf	ranchised			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ln(European pop %)	-7.238***	-6.739***	-7.148**	-6.509***	-4.969***	-7.755***	-5.361**	-10.80***	-6.401***
	(2.273)	(2.016)	(2.722)	(2.349)	(1.685)	(2.067)	(2.498)	(2.228)	(2.029)
Latitude		-0.369	. ,		· · · ·	. ,	, í		
		(0.267)							
State antiquity		35 30***							10.31
State uniquity		(11.97)							(9,603)
In (Slave exports/area)		(11.97)	0.173						().005)
in(Slave exports/area)			(1.466)						
			(1.400)						
Historical wars			-0.200						
			(0.207)	•					
Rugged terrain				-2.699					
				(1.896)					
ln(Area)				-1.475					
				(2.103)					
British colony					35.35***				34.61***
					(7.045)				(7.991)
French colony					52.39***				48.49***
·					(6.186)				(7.708)
Portuguese colony					13.19***				13.67***
8					(4.310)				(4.782)
Belgian colony					36.06***				36 04***
Deigian colony					(8 332)				(10.88)
WWII occupied					(0.332)	16 00***			3 757
w while occupied						(( 220)			5.757
						(6.230)			(6.050)
In(Protestant miss.)						-2.391			
						(1.632)			
Post-1945 ruling monarchy						-0.164			
						(3.884)			
ln(Exports/pop)							-0.113		
							(1.237)		
ln(Resource income/pop)							-2.007		
							(1.486)		
ln(Population)								0.0132	-1.457*
								(2.078)	(0.836)
ln(GDP/capita)								10.80***	2.320
								(3.881)	(2.799)
Ethnic frac								-24 11**	-2 001
Zume mue.								(11 18)	(8,007)
Territory_years	1.826	1 826	1.826	1 826	1.826	1 826	1.826	1 826	1.826
D aguarad	0.057	1,020	0.061	0.060	0.140	1,020	0.064	0.074	0.146
K-squared	0.057	0.084	0.061	0.060	0.140	0.088	0.064	0.074	0.146

### Table C.7: Franchise Size, 1945-1989

*Notes*: Table C.7 summarizes a series of OLS regressions by presenting coefficient estimates for each variable, and country-clustered standard error estimates in parentheses. For every territory in the core sample, Table C.7 contains an observation for each year between 1945 and 1989. \*\*\*p < 0.01, \*\* p < 0.05, \* p < 0.1.

			]	DV: Major col	onial liberation	n war incidence	e		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ln(European pop %)	0.0683***	0.0696***	0.0917***	0.0686***	0.0542***	0.0699***	0.0613***	0.0849***	0.0987***
	(0.0202)	(0.0247)	(0.0233)	(0.0189)	(0.0132)	(0.0234)	(0.0211)	(0.0264)	(0.0208)
Latitude		-0.000401							
		(0.00389)							
State antiquity		0.0543							
		(0.140)							
ln(Slave exports/area)			0.0318**						0.0389***
			(0.0127)						(0.0139)
Historical wars			0.00177						
			(0.00185)						
Rugged terrain			(,	-0.0241					
66				(0.0227)					
ln(Area)				0.0147					
()				(0.0225)					
British colony				(0.0223)	-0.178				
British colony					(0.152)				
French colony					-0.140				
T tenen colony					(0.157)				
Portuguasa aolony					0.160				
I offuguese colony					(0.150)				
Palgian colony					(0.150)				
Bergian colony					-0.134				
W/W/II					(0.157)	0.000752			
w will occupied						-0.000752			
						(0.0811)			
In(Protestant miss.)						-0.00395			
						(0.0191)			
Post-1945 ruling monarchy						-0.0705*			0.0400
						(0.0402)			(0.0593)
ln(Exports/pop)							0.00605		
							(0.0170)		
ln(Resource income/pop)							0.00245		
							(0.0170)		
ln(Population)								0.00920	
								(0.0235)	
ln(GDP/capita)								-0.0462	
								(0.0655)	
Ethnic frac.								0.176	
								(0.144)	
Territory-years	808	808	808	808	808	808	808	808	808
R-squared	0.108	0.109	0.154	0.125	0.206	0.115	0.110	0.124	0.152

Table C.8: Co	olonial Liberation	War Incidence,	1945-1989
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*Notes*: Table C.8 summarizes a series of OLS regressions by presenting coefficient estimates for each variable, and country-clustered standard error estimates in parentheses. For every territory in the core sample, Table C.8 contains an observation for each year between 1945 and 1989 in which the territory was colonized. The first and every subsequent year of a colonial liberation war is scored as a 1 on the dependent variable. \*\*\*p < 0.01,\*\* p < 0.05,\* p < 0.1.

				DV: Major co	olonial liberatio	n war onset			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ln(European pop %)	0.00920***	0.00796**	0.0113***	0.00889***	0.00992***	0.00668**	0.0102***	0.00956**	0.00688***
	(0.00245)	(0.00304)	(0.00269)	(0.00250)	(0.00278)	(0.00275)	(0.00317)	(0.00360)	(0.00232)
Latitude		0.000286	(,	(		(	(	(	(
		(0.000618)							
State antiquity		0.0362							
State antiquity		(0.0302)							
In (Slove experts/eree)		(0.0273)	0.00280						
in(Slave expons/area)			0.00289						
TT' / 1			(0.00181)						
Historical wars			0.000474						
			(0.000392)						
Rugged terrain				-0.00122					
				(0.00271)					
ln(Area)				0.00336					
				(0.00280)					
British colony					0.00647				
, , , , , , , , , , , , , , , , , , ,					(0.0131)				
French colony					0.0199				
T tenen colony					(0.0155)				
Dortuguaga galary					0.0476***				0.0410***
Portuguese cololly					(0.0120)				0.0410****
					(0.0120)				(0.00823)
Belgian colony					0.0115				
					(0.0143)				
WWII occupied						0.0338*			0.0383***
						(0.0169)			(0.0140)
ln(Protestant miss.)						0.00144			
						(0.00301)			
Post-1945 ruling monarchy						0.000828			
, i i i i i i i i i i i i i i i i i i i						(0.00918)			
ln(Exports/pop)						(0.000)10)	-0.000561		
m(Exports/pop)							(0.000301)		
ln(Basaynaa in aama/nan)							0.000672		
In(Resource Income/pop)							-0.000073		
							(0.00254)	0.00(70**	0.000001##
In(Population)								0.006/2**	0.00661**
								(0.00296)	(0.00292)
ln(GDP/capita)								-0.00121	
								(0.00948)	
Ethnic frac.								-0.00630	
								(0.0262)	
Territory-years	718	718	718	718	718	718	718	718	718
R-squared	0.012	0.016	0.016	0.015	0.020	0.019	0.013	0.017	0.032

Table C.9:	Colonial	Liberation	War	Onset,	1945-1989
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*Notes*: Table C.9 summarizes a series of OLS regressions by presenting coefficient estimates for each variable, and country-clustered standard error estimates in parentheses. For every territory in the core sample, Table C.9 contains one observation for each year between 1945 and 1989 in which the territory was colonized. The dependent variable scores a 1 in the first year of a colonial liberation war, and territory-years with an ongoing colonial liberation war are dropped. \*\*\*p < 0.01,\*\* p < 0.05,\* p < 0.1.

			DV: A	verage % pop.	legally enfra	nchised, 1955-	-1970		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ln(European pop %)	-10.99***	-9.715***	-11.81***	-9.753***	-7.916***	-11.55***	-7.517**	-18.37***	-11.40***
	(2.858)	(3.347)	(3.686)	(3.224)	(1.818)	(3.258)	(3.703)	(3.277)	(2.411)
Latitude		-0.627							
		(0.534)							
State antiquity		47.42**							0.307
		(19.71)							(14.25)
ln(Slave exports/area)			-1.659						
			(2.748)						
Historical wars			-0.505						
			(0.367)						
Rugged terrain				-4.931					
				(3.550)					
ln(Area)				-2.110					
				(4.222)					
British colony					24.71***				23.74***
-					(7.386)				(7.874)
French colony					55.82***				51.29***
-					(7.090)				(7.381)
Portuguese colony					-25.26***				-22.41***
					(5.510)				(5.107)
Belgian colony					28.01**				23.89
					(13.28)				(15.86)
WWII occupied						23.96**			4.957
-						(11.46)			(6.796)
ln(Protestant miss.)						-3.623			
						(3.070)			
Post-1945 ruling monarchy						-2.478			
c ,						(6.860)			
ln(Exports/pop)							-1.440		
							(1.972)		
ln(Resource income/pop)							-2.627		
							(2.580)		
ln(Population)							. ,	-0.903	
								(3.245)	
ln(GDP/capita)								24.86***	9.238*
· • •								(8.283)	(4.621)
Ethnic frac.								-39.02**	-12.89
								(18.49)	(12.55)
Territories	41	41	41	41	41	41	41	41	41
R-squared	0.272	0.373	0.321	0.296	0.837	0.408	0.313	0.428	0.859

### Table C.10: Franchise Size using Cross-Section

*Notes*: Table C.10 summarizes a series of OLS regressions by presenting coefficient estimates for each variable, and robust standard error estimates in parentheses. The sample is territories, and the dependent variable is average percent of the population with the legal franchise between 1955 and 1970. \*\*\*p < 0.01,\*\* p < 0.05,\* p < 0.1.

# **D** Additional Information for Instrumental Variables Results

### D.1 Measuring the European Land Suitability Instrument

Factor	Description
Tuctor	Description
Mediterranean climate	White (1983) provides vegetation data for Africa, which Fenske (2014) con-
	verted into shapefiles, that were used to compute areas with Mediterranean
	climate.
High rainfall	Raster data from Hijmans et al. (2005) were used to compute shapefiles of areas
	with annual rainfall of at least 20 inches.
High elevation	Raster data from Hijmans et al. (2005) were used to compute shapefiles of areas
	with elevation of at least 3,000 feet.
Low tsetse fly	Raster data from Alsan (2015) were used to compute areas with the lowest
	quartile on her tsetse fly suitability index.

**Table D.1: Factors Used to Construct the Instrument** 

To calculate the instrument, I used ArcGIS to create shapefiles for each of the four conditions stated in Table D.1. I used the source datasets to calculate the intersection of high rainfall, high elevation, and low tsetse fly, and then for each colony divided the area of this intersection by the colony's total area. I excluded desert and semi-desert area—which were also calculated from White's (1983) and Fenske's (2014) spatial data—to eliminate territory where very few people, European or not, would settle. I performed the same calculation for Mediterranean climate. In northern Africa, all areas with high rainfall/high elevation/low tsetse fly are in Mediterranean climate territory, and therefore the percentage of territory with Mediterranean climate territory and the high rainfall/high elevation/low tsetse fly territory, and the high rainfall/high elevation/low tsetse fly territory, and the high rainfall/high elevation/low tsetse fly the mediterranean climate territory and the high rainfall/high elevation/low tsetse fly the areas of the two polygons were added to generate the value of the instrument for South Africa. The value of the instrument for all other countries equals the percentage of territory with high rainfall/high elevation/low tsetse fly. All the instrumental variable results are based on a variable that adds 0.1 to this variable and takes the natural log. Figures D.1 through D.4 depict each component of the instrument.



Figure D.1: Mediterranean Climate

# Figure D.2: High Rainfall



Figure D.3: High Elevation



Figure D.4: Low Tsetse Fly





Figure D.5: First Stage Correlation Between Instrument and European Population Share

*Notes:* Figure D.5 presents the scatterplot for a regression of European population share on the instrument along with the regression line and 95% confidence interval.



In(Suitable territory/area)

Figure D.6: Correlation Between European Land Suitability and Settler Mortality Rates

### **D.2** Additional IV Results

				DV: % pc	p. legally enfr	ranchised			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ln(European pop %)	-19.59***	-20.70***	-26.95***	-19.83***	-10.50***	-22.13***	-22.97***	-25.33***	-13.40***
	(5.004)	(6.487)	(7.264)	(5.008)	(2.342)	(6.261)	(7.839)	(4.561)	(2.665)
Post-1945 ruling monarchy	4.111	-1.799	-20.54	12.43	2.341	-0.259	4.884	-18.45*	-2.135
	(11.77)	(8.424)	(17.06)	(22.12)	(7.459)	(8.826)	(12.76)	(9.533)	(9.331)
Latitude		0.531							
		(0.846)							
State antiquity		38.67							
		(25.07)							
In(Slave exports/area)			-8.781**						1.707
			(3.934)						(1.388)
Historical wars			0.0179						
			(0.424)						
Rugged terrain				-2.480					
1 ( 4 )				(7.095)					
In(Area)				1.736					
<b></b>				(4.086)	14.104				4055
British colony					16.19*				4.855
					(8.395)				(9.014)
French colony					47.11***				30.15***
					(8.6/3)				(8.790)
Portuguese colony					-31.36***				-43.20***
					(6.943)				(10.33)
Belgian colony					15.46				
					(17.34)	20 (1**			7.016
WWII occupied						39.61**			7.816
						(17.07)			(5.904)
In(Protestant miss.)						-0.270			
						(3.152)			
In(Exports/pop)							2.932		
							(4.198)		
In(Resource income/pop)							0.717		
							(2.863)	0.0224	
In(Population)								0.0234	
								(3.285)	11.00**
In(GDP/capita)								35.03***	11.82**
								(8.51/)	(4.945)
Ethnic frac.								-//.88***	-30.76**
T	(50)	(50	(50	(50	(50)	(50	(50)	(24.88)	(13.67)
Territory-years	0.052	0.108	650	0.052	0.412	050	650	650	650
K-squared	0.052	0.108	14.0	0.053	0.412	0.115	10.5	0.203	0.429
Partial F-test for IV	23.2	12.3	14.9	21.4	44.6	11.1	13.5	57.1	16.0
in first stage									

#### Table D.2: Table 5 Specifications with Covariate Estimates

*Notes*: Table D.2 summarizes a series of two-stage least square regressions in which log percentage of a colony's area that is suitable for European agriculture instruments for log European population share, and the dependent variable is franchise size. Country-clustered standard error estimates are in parentheses, and the unit of analysis is territory-years. The bottom of the table reports the partial F-test for the instrument in the first stage regression between the instrument and European settlers. Appendix Tables D.4 and D.5 present the corresponding first stage and reduced form estimates. \*\*\*p < 0.01, \*\* p < 0.05, \* p < 0.1.

				DV: Major	r colonial libe	ration war			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ln(European pop %)	0.268***	0.320***	0.339***	0.253***	0.272***	0.273***	0.343***	0.248***	0.210***
	(0.0591)	(0.0949)	(0.0939)	(0.0611)	(0.0515)	(0.0909)	(0.105)	(0.0701)	(0.0494)
Post-1945 ruling monarchy	-0.0981	-0.0778	0.160	0.0720	-0.0929	-0.122	-0.104	0.0200	-0.0195
	(0.128)	(0.109)	(0.188)	(0.153)	(0.154)	(0.119)	(0.121)	(0.135)	(0.0987)
Latitude		-0.00888							
State anti-		(0.0115)							
State antiquity		(0.239							
In(Slave exports/area)		(0.320)	0.0934						
in(blave exports/area)			(0.0556)						
Historical wars			0.00188						
			(0.00449)						
Rugged terrain			, ,	-0.0411					
				(0.0479)					
ln(Area)				0.0465					
				(0.0479)					
British colony					0.345				
					(0.278)				
French colony					0.427				
Dortuguasa colony					(0.268)				0 502***
Foltuguese cololly					(0.922)				(0.174)
Belgian colony					0.498				(0.174)
Dergiun corony					(0.327)				
WWII occupied					(0.027)	0.156			
I I I I I I I I I I I I I I I I I I I						(0.224)			
ln(Protestant miss.)						-0.0163			
						(0.0503)			
ln(Exports/pop)							-0.0446		
							(0.0573)		
ln(Resource income/pop)							-0.0286		
							(0.0418)	0.400	0.440444
In(Population)								0.102***	0.110***
ln(CDD/conita)								(0.0308)	(0.0304)
III(ODP/capita)								-0.0077	
Ethnic frac								0 303	
Lunie nue.								(0.364)	
Territories	42	42	42	42	42	42	42	42	42
R-squared	0.418	0.364	0.452	0.463	0.555	0.434	0.363	0.563	0.664
Partial F-test for IV	22.1	11.1	13.5	19.5	38.4	10.1	12.3	50.5	18.3
in first stage									

Table D.3: Table 6 Specifications with Covariate Estimates

*Notes*: Table D.3 summarizes a series of two-stage least square regressions in which log percentage of a colony's area that is suitable for European agriculture instruments for log European population share, and the dependent variable is major colonial liberation war. Robust standard error estimates are in parentheses, and the unit of analysis is territories. The bottom of the table reports the partial F-test for the instrument in the first stage regression between the instrument and European settlers. Appendix Tables D.6 and D.7 present the corresponding first stage and reduced form estimates. \*\*\*p < 0.01, \*\* p < 0.05, \* p < 0.1.

				DU	1 / E	~			
				$\frac{DV}{}$	In(European p	op %)			
ln(% area suitable for Eu. agri.)	(1) 0.378***	(2) 0.291***	(3) 0.292***	(4) 0.368***	(5) 0.434***	(6) 0.332***	(7) 0.261***	(8) 0.335***	(9) 0.322***
Latitude	(0.0727)	(0.0732) 0.0554**	(0.0710)	(0.0781)	(0.0671)	(0.0825)	(0.0645)	(0.0394)	(0.0484)
State antiquity		(0.0213) 0.625 (0.820)							
Post-1945 ruling monarchy	-1.145* (0.628)	-1.183** (0.482)	-1.575** (0.599)	-1.203 (0.820)	-0.597 (0.514)	-1.093* (0.583)	-0.742 (0.478)	-1.415*** (0.344)	-1.317*** (0.322)
ln(Slave exports/area)	()	(0110_)	-0.249** (0.101)	(0.020)	(*****)	(0.000)	(0)	(0.2.1.)	-0.122* (0.0712)
Historical wars			0.0186 (0.0134)						
Rugged terrain				0.0643					
ln(Area)				(0.1200) (0.141)					
British colony				(01111)	-1.819*** (0.456)				0.896*
French colony					-0.934**				1.143**
Portuguese colony					-0.876***				2.011***
Belgian colony					-3.594***				(0.720)
WWII occupied					(0.402)	0.980*			0.0421
ln(Protestant miss.)						(0.492) (0.0499) (0.107)			(0.270)
ln(Exports/pop)						(0.107)	$0.210^{*}$		
ln(Resource income/pop)							0.112		
ln(Population)							(0.0771)	-0.136	
ln(GDP/capita)								1.291***	1.136***
Ethnic frac.								-1.612**	-1.384***
Territory-years R-squared	650 0.447	650 0.605	650 0.529	650 0.449	650 0.678	650 0.508	650 0.574	650 0.748	650 0.809

 Table D.4: Franchise Size: First Stage Estimates for Table 5

*Notes*: Table D.4 summarizes a series of OLS regressions in which log European population share is regressed on log percentage of a colony's area that is suitable for European agriculture. This provides the first stage estimates for Table 5. Country-clustered standard error estimates are in parentheses, and the unit of analysis is territory-years. \*\*\*p < 0.01,\*\* p < 0.05,\* p < 0.1.

DV: % pop. legally enfranchised										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
ln(% area suitable for Eu. agri.)	-7.404***	-6.026***	-7.864***	-7.306***	-4.558***	-7.340***	-5.996***	-8.474***	-4.310***	
	(1.634)	(1.868)	(1.415)	(1.465)	(1.164)	(1.551)	(1.602)	(1.474)	(0.950)	
Latitude		-0.615								
		(0.490)								
State antiquity		25.73								
		(18.50)								
Post-1945 ruling monarchy	26.53**	22.70**	21.91*	36.28**	8.610	23.94**	21.93**	17.39	15.50	
<i>c i</i>	(11.47)	(10.68)	(12.13)	(13.89)	(7.992)	(10.20)	(10.04)	(11.77)	(10.58)	
ln(Slave exports/area)			-2.066						3.342**	
· • ·			(2.538)						(1.339)	
Historical wars			-0.484*							
			(0.285)							
Rugged terrain				-3.754						
				(2.971)						
ln(Area)				1.342						
				(3.639)						
British colony					35.29***				-7.153	
-					(6.964)				(11.03)	
French colony					56.91***				14.84	
-					(7.494)				(11.57)	
Portuguese colony					-22.16***				-70.15***	
					(7.260)				(13.53)	
Belgian colony					53.20***					
					(12.64)					
WWII occupied						17.92*			7.252	
						(10.08)			(5.601)	
ln(Protestant miss.)						-1.374				
						(2.817)				
ln(Exports/pop)							-1.886			
							(1.188)			
ln(Resource income/pop)							-1.862			
							(1.847)			
ln(Population)								3.466		
								(3.104)		
ln(GDP/capita)								2.344	-3.397	
								(7.186)	(4.345)	
Ethnic frac.								-37.05*	-12.22	
								(21.47)	(14.75)	
Territory-years	650	650	650	650	650	650	650	650	650	
R-squared	0.191	0.206	0.217	0.200	0.419	0.220	0.211	0.213	0.413	

*Notes*: Table D.5 summarizes a series of OLS regressions in which the percentage of enfranchised population is regressed on log percentage of a colony's area that is suitable for European agriculture. This provides the reduced form estimates for Table 5. Country-clustered standard error estimates are in parentheses, and the unit of analysis is territory-years.

 $^{***}p < 0.01, ^{**}p < 0.05, ^{*}p < 0.1.$ 

DV: ln(European pop %)										
ln(% area suitable for Eu. agri.)	(1) 0.359*** (0.0763)	(2) $0.270^{***}$ (0.0811)	(3) 0.268*** (0.0728)	(4) $0.368^{***}$ (0.0834)	(5) 0.416*** (0.0672)	(6) 0.288*** (0.0000)	(7) 0.246*** (0.0702)	(8) 0.318*** (0.0447)	(9) 0.390*** (0.0778)	
Post-1945 ruling monarchy	-1.135* (0.644)	-1.154**	-1.648** (0.619)	-1.351	-0.533	-0.986	(0.0702) -0.740 (0.511)	-1.562***	-1.243*	
Latitude	(0.044)	0.0530**	(0.019)	(0.871)	(0.541)	(0.391)	(0.311)	(0.455)	(0.087)	
State antiquity		0.470								
ln(Slave exports/area)		(0.004)	$-0.292^{***}$							
ln(War years 1400-1700)			0.0196 (0.0144)							
Rugged terrain			(010111)	0.0345 (0.294)						
ln(Area)				-0.0620 (0.165)						
British colony				(0.105)	-2.413*** (0.511)					
French colony					-1.562*** (0.491)					
Portuguese colony					-1.469*** (0.448)				0.449* (0.263)	
Belgian colony					-4.181*** (0.516)				(0.205)	
WWII occupied					(0.510)	0.993* (0.537)				
ln(Protestant miss.)						0.114 (0.114)				
ln(Exports/pop)						(0111)	0.223**			
ln(Resource income/pop)							0.0908			
ln(Population)							(0.10.1)	-0.165 (0.108)	-0.280* (0.156)	
ln(GDP/capita)								1.265***	(01120)	
Ethnic frac.								-2.022**		
Territories R-squared	42 0.401	42 0.533	42 0.522	42 0.405	42 0.679	42 0.466	42 0.519	42 0.723	42 0.465	

 Table D.6: Liberation Wars: First Stage Estimates for Table 6

*Notes*: Table D.6 summarizes a series of OLS regressions in which log European population share is regressed on log percentage of a colony's area that is suitable for European agriculture. This provides the first stage estimates for Table 6. Robust standard error estimates are in parentheses, and the unit of analysis is territories. \*\*\*p < 0.01, \*\* p < 0.05, \* p < 0.1.

		colonial liberation war							
ln(% area suitable for Eu. agri.)	(1) 0.0962***	(2) 0.0864***	(3) 0.0909***	(4) 0.0930***	(5) 0.113***	(6) 0.0787**	(7) 0.0845***	(8) 0.0788***	(9) 0.0818***
Post-1945 ruling monarchy	(0.0253) -0.403*	(0.0311) -0.447**	(0.0277) -0.399*	(0.0309) -0.270	(0.0216) -0.238	(0.0296) -0.391**	(0.0308) -0.358	(0.0236) -0.368**	(0.0266) -0.280
Latitude	(0.216)	(0.177) 0.00805 (0.00858)	(0.208)	(0.273)	(0.169)	(0.171)	(0.227)	(0.156)	(0.223)
State antiquity		0.389							
ln(Slave exports/area)		(0.201)	-0.00566						
ln(War years 1400-1700)			(0.0356) 0.00853 (0.00574)						
Rugged terrain			(,	-0.0324					
ln(Area)				(0.0714) 0.0308 (0.0535)					
British colony				(0100000)	-0.312*				
French colony					(0.157) 0.00154 (0.132)				
Portuguese colony					0.522**				0.688***
Belgian colony					(0.197) -0.640*** (0.141)				(0.169)
WWII occupied					(0.141)	0.427**			
ln(Protestant miss.)						(0.162) 0.0149 (0.0387)			
ln(Exports/pop)						(0.0507)	0.0322		
ln(Resource income/pop)							(0.0242) 0.00259 (0.0402)		
ln(Population)							(0.0102)	0.0611	0.0515
ln(GDP/capita)								0.246*	(0.0404)
Ethnic frac.								(0.129) -0.198 (0.325)	
Territories R-squared	42 0.286	42 0.381	42 0.320	42 0.300	42 0.578	42 0.399	42 0.302	42 0.395	42 0.454

Table D.7:	Liberation	Wars:	Reduced	Form	Estimates	for	Table 6
Iable Diff.	Liberation	viai 5.	neuuccu	rorm	Lounders	101	Table 0

*Notes*: Table D.7 summarizes a series of OLS regressions in which the indicator for major colonial liberation wars is regressed on log percentage of a colony's area that is suitable for European agriculture. This provides the reduced form estimates for Table 6. Robust standard error estimates are in parentheses, and the unit of analysis is territories. \*\*\*p < 0.01,\*\* p < 0.05,\* p < 0.1.

Table D.8 considers alternative combinations of the covariates from Table 5. The difference in expected franchise size if hypothetically increasing a territory's colonial European population share from Ghana's to Zimbabwe's amount ranges from 22% (73% vs. 51%) in Column 3 to 71% (88% vs. 17%) in Column 1.

	DV: % pc	p. legally enf	ranchised
	(1)	(2)	(3)
ln(European pop %)	-20.66***	-12.81***	-6.523**
	(6.300)	(3.234)	(2.934)
Post-1945 ruling monarchy	-17.99*	1.964	6.637
	(10.68)	(7.284)	(11.66)
Latitude	0.189		-0.692**
	(0.696)		(0.318)
State antiquity	53.11**		4.837
	(25.53)		(13.31)
ln(Slave exports/area)	-6.767*		3.547*
-	(3.453)		(2.014)
ln(War years 1400-1700)	-0.409		-0.371*
	(0.502)		(0.212)
Rugged terrain	-5.402		-1.518
	(4.250)		(1.454)
ln(Area)	-3.955		1.145
	(4.445)		(2.874)
British colony		14.41*	26.15***
-		(8.395)	(8.318)
French colony		46.16***	51.05***
-		(8.976)	(7.874)
Portuguese colony		-31.93***	-27.16***
		(6.584)	(6.661)
Belgian colony		14.15	23.24
		(19.22)	(15.60)
WWII occupied		8.917	1.207
		(6.902)	(5.699)
ln(Protestant miss.)		-1.036	-0.311
		(1.567)	(1.244)
ln(Exports/pop)		2.705**	2.036*
		(1.162)	(1.020)
ln(Resource income/pop)		0.403	-1.919
		(1.796)	(1.301)
ln(Population)			-0.206
			(2.997)
ln(GDP/capita)			10.65**
			(4.114)
Ethnic frac.			-39.50**
			(18.04)
Territory-years	650	650	650
R-squared	0.200	0.420	0.456
Partial F-test for IV	12.0	26.3	23.5
in first stage			

Table D.8: Alternative Groupings of Covariates for Table 5

*Notes*: Table D.8 summarizes a series of two-stage least square regressions in which log percentage of a colony's area that is suitable for European agriculture instruments for log European population share, and the dependent variable is franchise size. Country-clustered standard error estimates are in parentheses. The unit of analysis is territory-years. The bottom of the table reports the partial F-test for the instrument in the first stage regression between the instrument and European settlers. \*\*\*p < 0.01,\*\* p < 0.05,\* p < 0.1. Table C.4 considers alternative combinations of the covariates from Table 6. The positive difference in predicted probability of a liberation war if hypothetically increasing a territory's colonial European population share from Ghana's to Zimbabwe's amount ranges from 62% (9% vs. 71%) in Column 3 to 100% (0% vs. 100%) in Column 1.

	DV: Major	colonial libe	ration war
	(1)	(2)	(3)
ln(European pop %)	0.320***	0.233***	0.181
	(0.107)	(0.0814)	(0.107)
Post-1945 ruling monarchy	0.319*	-0.103	-0.0479
	(0.180)	(0.138)	(0.288)
Latitude	-0.00453		0.00705
	(0.0126)		(0.0109)
State antiquity	0.0130		-0.194
	(0.339)		(0.558)
ln(Slave exports/area)	0.0955*		-0.0313
	(0.0522)		(0.0554)
ln(War years 1400-1700)	-0.000998		0.00275
	(0.00659)		(0.00595)
Rugged terrain	0.0101		-0.0485
	(0.0546)		(0.0485)
ln(Area)	0.0804		-0.0938
	(0.0534)		(0.0954)
British colony		0.266	-0.155
		(0.395)	(0.429)
French colony		0.357	0.123
		(0.417)	(0.463)
Portuguese colony		1.016**	0.698
		(0.386)	(0.513)
Belgian colony		0.489	0.0335
		(0.456)	(0.480)
WWII occupied		0.302	0.311
		(0.185)	(0.269)
ln(Protestant miss.)		0.0646	0.0674
		(0.0530)	(0.0610)
ln(Exports/pop)		-0.0353	0.0181
		(0.0494)	(0.0406)
ln(Resource income/pop)		-0.0225	-0.0363
		(0.0415)	(0.0491)
ln(Population)			0.170
			(0.102)
ln(GDP/capita)			-0.0744
			(0.135)
Ethnic frac.			0.375
			(0.393)
Territories	42	42	42
R-squared	0.519	0.666	0.787
Partial F-test for IV	9.8	20.2	13.0
in first stage			

Table D.9: Alternative Groupings of Covariates for Table 6

*Notes*: Table D.9 summarizes a series of two-stage least square regressions in which log percentage of a colony's area that is suitable for European agriculture instruments for log European population share, and the dependent variable is major colonial liberation war. Robust standard error estimates are in parentheses. The unit of analysis is territories. The bottom of the table reports the partial F-test for the instrument in the first stage regression between the instrument and European settlers. The p-value for the European settlers coefficient estimate in Column 3 is 0.104. \*\*\*p < 0.01,\*\* p < 0.05,\* p < 0.1.

Controlling for historical population density follows from Acemoglu, Johnson and Robinson's (2002) argument that more developed pre-colonial societies with higher population density prevented European settlement. The present data uses their same source, McEvedy and Jones (1978), and measures the variable in 1800 for every African country.

				DV: % pc	op. legally enf	ranchised			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ln(European pop %)	-18.38***	-21.64***	-28.41***	-17.69***	-9.606***	-20.96***	-20.16***	-27.83***	-12.91***
	(4.771)	(7.645)	(8.376)	(5.424)	(2.386)	(5.638)	(7.283)	(5.361)	(3.140)
Pop. dens. in 1800	-0.278	0.0342	-0.926*	-0.212	0.895***	-0.243	-0.239	-0.706	0.761**
F	(0.271)	(0.323)	(0.487)	(0.556)	(0.265)	(0.263)	(0.255)	(0.492)	(0.305)
Latitude	(0.271)	0.622	(0.107)	(0.550)	(0.203)	(0.205)	(0.200)	(0.1)2)	(0.505)
Builtude		(1.007)							
State antiquity		37.87							
State antiquity		(25.64)							
In (Slove exports/orge)		(25.04)	7 202**						1.002
in(Slave exports/area)			(2 501)						(1.220)
1- (W 1400, 1700)			(5.501)						(1.220)
III(war years 1400-1700)			-0.0011						
			(0.392)						
Rugged terrain				-1.114					
				(4.786)					
ln(Area)				-0.0849					
				(4.723)					
British colony					15.79*				15.36***
					(7.907)				(4.837)
French colony					46.85***				41.21***
					(8.868)				(5.797)
Portuguese colony					-32.75***				-31.76***
					(7.520)				(6.531)
Belgian colony					-0.308				
0					(12.07)				
WWII occupied						37.10**			7.898
·····						(15.98)			(5409)
In(Protestant miss.)						-1.013			(0.105)
m(i iotestant iniss.)						(3.019)			
In(Exports/pop)						(3.017)	1 794		
m(Exports/pop)							(2,722)		
ln (Deserves in some (non)							(3.732)		
In(Resource Income/pop)							0.248		
							(2.767)		
In(Population)								0.141	
								(3.574)	
ln(GDP/capita)								37.09***	12.54**
								(10.15)	(4.978)
Ethnic frac.								-70.54***	-20.20*
								(23.38)	(10.79)
Territory-years	650	650	650	650	650	650	650	650	650
R-squared	0.075	0.094		0.086	0.427	0.136	0.050	0.174	0.439
Partial F-test for IV	27.5	13.6	10.7	27.0	67.5	14.9	15.3	32.0	10.8
in first stage									

Table D.10: Franchise Size IV Results with Historical Population Density Control

*Notes*: Table D.10 summarizes a series of two-stage least square regressions in which log percentage of a colony's area that is suitable for European agriculture instruments for log European population share, and the dependent variable is franchise size. Country-clustered standard error estimates are in parentheses. The unit of analysis is territory-years. The bottom of the table reports the partial F-test for the instrument in the first stage regression between the instrument and European settlers. \*\*\*p < 0.01, \*\* p < 0.05, \* p < 0.1.

	DV: Major colonial liberation war										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		
ln(European pop %)	0.244***	0.273***	0.352***	0.245***	0.258***	0.213***	0.294***	0.251***	0.204**		
	(0.0557)	(0.0993)	(0.108)	(0.0560)	(0.0449)	(0.0733)	(0.0869)	(0.0787)	(0.0961)		
Pop. dens. in 1800	0.00131	0.00172	0.00831	0.00844	0.00160	0.00160	0.00136	0.00130	-0.00180		
	(0.00478)	(0.00517)	(0.00795)	(0.00676)	(0.00655)	(0.00474)	(0.00495)	(0.00555)	(0.00629)		
Latitude		-0.00461									
		(0.0128)									
State antiquity		0.198									
1 (01		(0.299)	0.002(*						0.00221		
In(Slave exports/area)			0.0836*						-0.00221		
			(0.0492)						(0.0434)		
Historical wars			(0.00234)								
Pugged terrain			(0.00447)	0.0235							
Ruggeu terrain				(0.0233)							
ln(Area)				0.0649							
m(r nou)				(0.0512)							
British colony				(0.0012)	0.288						
					(0.270)						
French colony					0.378						
					(0.262)						
Portuguese colony					0.894***				0.606**		
<i>c .</i>					(0.261)				(0.253)		
Belgian colony					0.350						
					(0.321)						
WWII occupied						0.230					
						(0.202)					
ln(Protestant miss.)						0.00596					
						(0.0448)					
ln(Exports/pop)							-0.0267				
							(0.0477)				
In(Resource income/pop)							-0.0220				
la (Denseletien)							(0.0393)	0.102**	0 112***		
in(Population)								$0.102^{**}$	(0.0252)		
ln(GDP/canita)								0.0688	(0.0332)		
III(ODI /capita)								(0.143)			
Ethnic frac								0.302			
Lunie nue.								(0.358)			
Territories	42	42	42	42	42	42	42	42	42		
R-squared	0.435	0.419	0.438	0.482	0.564	0.481	0.417	0.563	0.665		
Partial F-test for IV	26.3	12.3	9.7	24.5	58.1	13.6	13.9	28.3	9.1		
in first stage											

### Table D.11: Colonial Liberation War IV Results with Historical Population Density Control

*Notes*: Table D.11 summarizes a series of two-stage least square regressions in which log percentage of a colony's area that is suitable for European agriculture instruments for log European population share, and the dependent variable is major colonial liberation war. Robust standard error estimates are in parentheses. The unit of analysis is territories. The bottom of the table reports the partial F-test for the instrument in the first stage regression between the instrument and European settlers. \*\*\*p < 0.01,\*\* p < 0.05,\* p < 0.1.

	DV: % pop. legally enfranchised										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		
ln(European pop %)	-18.68***	-21.43***	-30.45***	-18.12***	-10.10***	-22.23***	-21.04***	-27.62***	-13.57***		
	(4.976)	(7.520)	(9.922)	(6.326)	(2.422)	(6.471)	(7.743)	(5.253)	(3.077)		
Latitude	(11)/0)	0.590	():)==)	(0.020)	()	(011/1)	(/////0)	(0.200)	(5.677)		
Lautude		(0.010)									
G		(0.910)									
State antiquity		38.06									
		(25.39)									
ln(Slave exports/area)			-8.046**						1.753		
			(3.872)						(1.323)		
ln(War years 1400-1700)			0.0475								
· · ·			(0.475)								
Rugged terrain			()	-0.862							
Rugged terrain				(5.047)							
1(A				(3.047)							
In(Area)				0.603							
				(4.000)							
British colony					17.92**				5.235		
					(7.972)				(9.173)		
French colony					48.65***				30.63***		
5					(8.955)				(8.414)		
Portuguese colony					-30 /0***				_12 5/1***		
Tortuguese colony					-30.40				(10.07)		
					(7.012)				(10.97)		
Belgian colony					18.74						
					(14.34)						
WWII occupied						39.71**			7.848		
						(17.45)			(5.953)		
ln(Protestant miss.)						-0.240					
						(3.096)					
ln(Exports/pop)						(2107.0)	2 303				
m(Exports/pop)							(3.024)				
1. ( <b>B</b>							(3.924)				
In(Resource income/pop)							0.424				
							(2.869)				
In(Population)								-0.454			
								(3.542)			
ln(GDP/capita)								38.84***	12.14**		
								(10.35)	(5.375)		
Ethnic frac.								-63.64***	-29.34***		
								(22.60)	(10.54)		
Torritory years	650	650	650	650	650	650	650	(22.00)	(10.34)		
D - manual	0.007	0.007	050	0.079	0.412	0.114	0.022	0.164	0.120		
K-squared	0.067	0.097		0.078	0.413	0.114	0.033	0.164	0.429		
Partial F-test for IV	17.2	8.0	6.9	14.4	64.8	8.6	10.2	30.2	4.9		
in first stage											

Tał	ole	<b>D.</b> 1	12:	Franchi	se Siz	e IV	Results	without	Monarchy	or ]	<b>Population</b>	Density
									•		1	•

*Notes*: Table D.12 summarizes a series of two-stage least square regressions in which log percentage of a colony's area that is suitable for European agriculture instruments for log European population share, and the dependent variable is franchise size. Country-clustered standard error estimates are in parentheses. The unit of analysis is territory-years. The bottom of the table reports the partial F-test for the instrument in the first stage regression between the instrument and European settlers. \*\*\*p < 0.01,\*\* p < 0.05,\* p < 0.1.

DV: Major colonial liberation war											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		
ln(European pop %)	0.245***	0.285***	0.375***	0.263***	0.257***	0.222**	0.299***	0.251***	0.205***		
	(0.0584)	(0.103)	(0.133)	(0.0658)	(0.0440)	(0.0886)	(0.0967)	(0.0775)	(0.0464)		
Latitude	× /	-0.00622	· · · ·	× /	× /	× /	× /				
		(0.0119)									
State antiquity		0.208									
State antiquity		(0.200)									
1-(61		(0.297)	0.0017								
in(Slave expons/area)			0.0917								
TT' / 1			(0.0574)								
Historical wars			0.00145								
			(0.00531)								
Rugged terrain				-0.0309							
				(0.0476)							
ln(Area)				0.0411							
				(0.0433)							
British colony					0.291						
					(0.266)						
French colony					0.380						
					(0.258)						
Portuguese colony					0.898***				0.600***		
I ontuguese colony					(0.258)				(0.164)		
Palgian aplany					0.256)				(0.104)		
Bergian colony					(0.364						
W/W/H					(0.277)	0.010					
w will occupied						0.212					
						(0.225)					
In(Protestant miss.)						0.000452					
						(0.0454)					
ln(Exports/pop)							-0.0299				
							(0.0520)				
ln(Resource income/pop)							-0.0229				
							(0.0392)				
ln(Population)								0.103***	0.110***		
-								(0.0364)	(0.0296)		
ln(GDP/capita)								-0.0724	, í		
								(0.150)			
Ethnic frac								0.290			
Etime nuel								(0.320)			
Territories	42	42	42	42	42	42	42	42	42		
R-squared	0.434	0 406	0 380	0.452	0.565	0 475	0.411	0 563	0.664		
Dartial E test for IV	16.8	7.5	6.0	13.4	57.3	8.0	0.411	27.4	10.8		
in first store	10.0	1.5	0.4	13.4	57.5	0.0	9.5	27.4	10.0		
in first stage											

Table D.13: Colonial Liberation War IV Results without Monarchy or Population Density

*Notes*: Table D.13 summarizes a series of two-stage least square regressions in which log percentage of a colony's area that is suitable for European agriculture instruments for log European population share, and the dependent variable is major colonial liberation war. Robust standard error estimates are in parentheses. The unit of analysis is territories. The bottom of the table reports the partial F-test for the instrument in the first stage regression between the instrument and European settlers. \*\*\*p < 0.01, \*\* p < 0.05, \* p < 0.1.

### D.3 Assessing Sensitivity to Exclusion Restriction Violations

Because the exclusion restriction is unlikely to be perfectly satisfied in any social scientific research, it is important to assess how badly the exclusion restriction would have to be violated for the results presented above to be invalid. Conley, Hansen and Rossi (2012) provide a suitable method with the stated purpose: "Often the instrument exclusion restriction that underlies the validity of the usual IV inference is suspect; that is, instruments are only plausibly exogenous. We present practical methods for performing inference

while relaxing the exclusion restriction" (260). They assume that instead of Equation 1, the dependent variable is generated by:

$$Y_i = \beta_0 + \beta_E \ln E_i + \gamma \ln Z_i + \mathbf{X}'_i \beta_X + \epsilon_i, \tag{D.1}$$

If  $\gamma \neq 0$ , then the instrument directly affects the outcome, i.e., the exclusion restriction is not perfectly satisfied. Although it is likely that  $\gamma \neq 0$  in any applied research situation, this is only problematic for the present 2SLS estimates of the European settler coefficient if  $\gamma$  is large in magnitude. Because  $\gamma$  is unobservable, it is crucial to examine how the results would change for different hypothetical values of  $\gamma$ . Table D.14 states for each specification in Tables 5 and 6 the value of  $\gamma$  for which the p-value of the 2SLS estimated effect of European population share would equal either 0.05 or 0.10. In Panel A, if the true  $\gamma$ is negative and smaller in magnitude than the amount stated in the table, then the coefficient estimate for European settlers from the stated column in Table 5 is statistically significant at the stated threshold. In Panel B, if the true  $\gamma$  is positive and smaller in magnitude than the amount stated in the table, then the table, then the coefficient estimate for European settlers from the stated column in Table 6 is statistically significant at the stated threshold. If instead the true  $\gamma$  is positive in Panel A or is negative in Panel B, then the magnitude of the coefficient estimate from the regression table is *downwardly* biased. The numbers in parentheses in Table D.14 state the  $\gamma$  thresholds as a percentage of the reduced form estimated effect of the instrument on either franchise size or colonial liberation wars when controlling for the stated set of covariates (see Tables D.5 and D.7).

	Panel A. % enfranchised population										
Column in Table 5:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		
Stat. sig. at 5% if $\gamma \ge$	-4.16	-2.54	-4.95	-4.39	-2.45	-4.20	-2.50	-5.61	-2.57		
( $\%$ of reduced-form estimate)	(56%)	(42%)	(63%)	(60%)	(54%)	(57%)	(42%)	(66%)	(60%)		
Stat. sig. at 10% if $\gamma \geq$	-4.72	-3.13	-5.49	-4.90	-2.78	-4.77	-3.18	-6.08	-2.85		
(% of reduced-form estimate)	(64%)	(52%)	(70%)	(67%)	(61%)	(65%)	(53%)	(72%)	(66%)		
Panel B. Major colonial liberation war											
			Panel	B. Major	colonial	liberatio	on war				
Column in Table 6:	(1)	(2)	Panel (3)	B. Major (4)	colonial (5)	liberatio	on war (7)	(8)	(9)		
Column in Table 6: Stat. sig. at 5% if $\gamma \leq$	(1) 0.054	(2) 0.036	Panel (3) 0.044	B. Major (4) 0.044	colonial (5) 0.074	liberatio (6) 0.029	00 war (7) 0.034	(8) 0.034	(9) 0.039		
Column in Table 6:         Stat. sig. at 5% if $\gamma \leq$ (% of reduced-form estimate)	(1) 0.054 (56%)	(2) 0.036 (42%)	Panel (3) 0.044 (48%)	B. Major (4) 0.044 (47%)	colonial (5) 0.074 (65%)	liberatio (6) 0.029 (37%)	0.034 (40%)	(8) 0.034 (43%)	(9) 0.039 (48%)		
Column in Table 6:Stat. sig. at 5% if $\gamma \leq$ (% of reduced-form estimate)Stat. sig. at 10% if $\gamma \leq$	(1) 0.054 (56%) 0.060	(2) 0.036 (42%) 0.044	Panel (3) 0.044 (48%) 0.052	B. Major (4) 0.044 (47%) 0.051	colonial (5) 0.074 (65%) 0.080	liberatio (6) 0.029 (37%) 0.037	00 war (7) 0.034 (40%) 0.042	(8) 0.034 (43%) 0.042	(9) 0.039 (48%) 0.045		

Table D.14: Sensitivity of IV Results to Exclusion Restriction Violations

Table D.14 demonstrates that the 2SLS estimates are quite insensitive to relatively large violations of the exclusion restriction, which is somewhat remarkable considering the small number of territories in the

sample. In seven of the nine franchise size regressions, at least 50 percent of the reduced form effect of the instrument on franchise size must occur through channels other than European settlement for the European population share coefficient estimate not to be significant at least at the 5% level. In eight of the nine liberation war regressions, at least 40 percent of the reduced form effect of the instrument on franchise size must occur through channels other than European settlement for the European population share coefficient estimate not to be significant at least at the 5% level. These thresholds are even higher for the 10% significance level. There are no existing alternative hypotheses suggesting that nearly—or more than—half of the effect of land suitability conditions on either franchise size or colonial liberation wars should have occurred through other channels than European settlement (and that are not captured by covariates in the various specifications), which is needed explain away the relationship between European settlers and either dependent variable.

#### D.4 Strength of First Stage Correlation and Bias from Exclusion Restriction Violations

A related exclusion violation consideration is that including the post-1945 colonial monarchy covariate (or, population density in 1800) makes the coefficient estimates less sensitive to any violations of the exclusion restriction by increasing the strength of the first stage relationship between Europeans settlers and the land suitability instrument. Ignoring the log terms for simplicity, Equations D.1 and 2 can be rewritten after partialing out the other covariates in auxiliary regressions:

$$Y_i = \tilde{\beta}_E \tilde{E}_i + \tilde{\gamma} \tilde{Z}_i + \tilde{\epsilon}_i \tag{D.2}$$

$$E_i = \tilde{\beta}_Z \tilde{Z}_i + \tilde{\epsilon}_{Z,i} \tag{D.3}$$

The instrumental variables estimator for European settlers is  $\hat{\beta}_{E,IV} = (\tilde{Z}'\tilde{X})^{-1}\tilde{Z}y$ . If the explanatory variables are uncorrelated with the error terms but  $\gamma \neq 0$ , then  $\hat{\beta}_{E,IV}$  converges to  $\tilde{\beta}_E + \frac{Var(\tilde{Z})}{Cov(\tilde{Z},\tilde{X})} \cdot \gamma$ . In words,  $Cov(\tilde{Z},\tilde{X})$  is the covariance between the land suitability instrument and European settlers after partialing out covariates. If adding covariates increases  $Cov(\tilde{Z},\tilde{X})$ , then this decreases the magnitude of bias induced by any direct effects of land suitability on the outcomes.

### **E** Additional Information for Land Inequality Results

Hailey (1957, 687) provides comparative data on percentage of land alienated by colonial Europeans, perhaps the most direct measure possible of land inequality. Among territories in the sample, the European land alienation variable is missing data for Angola, Djibouti, Equatorial Guinea, Guinea-Bissau, Madagascar, Morocco, Mozambique, Sudan, and Tunisia. The following territories have greater than 0 percent European land allocation: South Africa (89%), Zimbabwe (49%), Swaziland (49%), Algeria (34%), DRC (9%), Kenya (7%), Botswana (6%), Ghana (5%), Namibia (5%), Malawi (5%), Zambia (3%), Rwanda (2%), Burundi (2%), and Tanzania (0.9%). Hailey (1957, 687) states that the percentage is less 0.5% for all other territories for which he has data. Broadly, these estimates have face validity. For example, the figures for South Africa, Zimbabwe, and Kenya are very similar to those in Table 1 despite Lutzelschwab (2013) using different sources (among data points used in the present sample, Algeria is the only one that did not come from Hailey (1957), instead from Lutzelschwab (2013)), and the data points are also very similar to those listed by Mosley (1983, 7). However, several of the individual data points induce measurement error given the underlying concept of interest. For example, although the Belgian Congo/DRC had a relatively large amount of alienated land, over 95% of this land was alienated for private companies rather than for European settlers (Peemans, 1975, 180). And the figure for South-West Africa/Namibia is too low. There is broad agreement among historians that the extent of European land penetration in South-West Africa was among the highest in the continent. For example, Duignan and Gann (1975, 11) state: "Outside South Africa and South-West Africa, the European impact was most far-reaching in Southern Rhodesia" [emphasis added]. According to Schmokel (1985, 99), in the 1960s, about 5,200 European settlers and corporate officials owned half the colony's land. Later that decade, South Africa began to implement the Odendaal Plan, which reserved 60% of South-West Africa's land for whites (Oliver and Atmore, 2005, 297-8). However, in the absence of systematic information that could be used to adjust Hailey's (1957) figures for all colonies, I used his original estimates. All the results in Table E.1 are qualitatively idenitical if adding 0.1 to alienated land percentage and taking the natural log (results not reported).

Bruce (1998) surveys African countries in the 1990s to assess whether or not a "significant" amount of land was held privately. Herbst (2000), who also uses this source, argues that only in settler colonies did private property of land become widespread, and that these patterns tended to persist after independence because of difficulties for post-colonial rulers to disrupt existing land practices. Therefore, this variable acts

as a reasonable proxy for colonial land inequality. The privately owned land indicator is missing data for Algeria, Equatorial Guinea, Madagascar, Morocco, and Tunisia. The following countries are scored 1 on the variable: Kenya, Malawi, Mauritania, Namibia, South Africa, Swaziland, and Zimbabwe. Once again, this scoring of "significant" amounts of privately held land has face validity when compared to historical narratives. Herbst (2000) discusses the outlying case of Mauritania and argues that its post-colonial rulers (recall that this variable is measured in the 1990s rather than the colonial era) were more easily able to introduce private land reform after independence because only a tiny fraction of its land is arable and this land is located close to the capital.

DV:	Reserved land %		Private land index		% pop. lega	lly enfranchised	Colonial liberation war	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ln(% area suitable for	3.077**		0.417**					
Eu. agri.)	(1.273)		(0.181)					
ln(European pop %)		9.509***		1.063***				
		(3.279)		(0.357)				
Reserved land %					-0.796***		0.0687**	
					(0.166)		(0.0339)	
Private land index						-33.38***		2.159**
						(12.20)		(0.947)
Observations	33	33	37	37	506	570	33	37
R-squared	0.227	0.522			0.147	0.094		
Model:	OLS	OLS	Logit	Logit	OLS	OLS	Logit	Logit

#### Table E.1: Statistically Assessing Land Inequality

*Notes*: Columns 1 and 2 summarize a series of OLS regressions with robust standard errors in which the unit of analysis is territories. Columns 3, 4, 7, and 8 summarize a series of logit regressions with robust standard errors in which the unit of analysis is territories. Columns 5 and 6 summarize a series of OLS regressions with country-clustered robust standard errors in which the unit of analysis is territory-years. \*\*\*p < 0.01,\*\* p < 0.05,\* p < 0.1.

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