Elite Competition and the Iron Law of Oligarchy: A Tale of 14 Islands[*]

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Preliminary - Comments Very Welcome

Abstract

We develop a model of oligarchy subject to elite competition. Even when all members of the elite share an economic interest in labor repression, competition for control of the state can drive a wedge between the incentives of old and new elites. Thus 'the iron law of oligarchy'–that all elite members share an overriding interest in repressive institutions–can be bent in various ways. New elites may oppose repressive labor policies in order to maintain legitimacy among the citizenry, which in turn gives them power to coordinate popular revolt. They can leverage this power to extract rents from the old elite or initiate a democratic transition on their own terms. The old elite can forestall these moves by co-opting the new elite or inviting the intervention of an external power (e.g. colonial authority, domestic military). We test the model's implications using detailed historical data on the "plantocracies" of 14 British Caribbean sugar islands in the 19th century, where the abolition of slavery intensified elite turnover and competition.

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"If we want things to stay as they are, they will have to change."

— Giuseppe di Lampedusa, *The Leopard*

"In few places does the dead hand of the past lie as heavily on the present as in the Caribbean."

— Wallace (1977)

1   Introduction

A rich political economy literature has studied the expansion of democracy: how elite-dominated oligarchic societies may become more broad-based, either in the form of autocracies that transition into democracy or in the form of narrow-based democracies becoming more broad-based (Lipset (1959), Bourguignon and Verdier (2000), Acemoglu and Robinson (2000), Acemoglu and Robinson (2001), Lizzeri and Persico (2004), Brückner and Ciccone (2011), Besley, Persson, and Reynal-Querol (2012)). Society is commonly conceptualized as consisting of an elite and a non-elite citizenry,[1] and democratic expansion or contraction is determined by exogenous fluctuations in the power of the two groups. In an influential line of research, Acemoglu and Robinson (2000), Acemoglu and Robinson (2001), Acemoglu and Robinson (2006b) argue that democratic expansion has historically happened when the non-elite citizenry is temporarily empowered, and demands to lock in this temporary power in the form of permanent institutional changes.

In the formal literature on democratic transitions, the elite and non-elite are typically conceptualized as two monolithic blocs, one representing the few and one the many (Meltzer and Richard (1981)).[2] This provides a powerful workhorse model, but does not account for changes in elite composition, nor the role of elite competition in repression and revolution. We develop a model of elite competition and institutional formation, building on Acemoglu and Robinson (2008) and the seminal papers before it. As in this literature, the population is partitioned into an elite and citizenry who interact to determine political and economic institutions. Our departure point is the assumption of a unified elite. In our model, the elite changes over time and is itself partitioned

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[1]This distinction can be along ethnic or religious lines (Huti vs Tutsi in Rwanda, Indian vs Fijian in Fiji, Sinhalese vs Tamils in Sri Lanka, Shia vs Sunni in Iraq), but can also be along racial lines as in the post bellum U.S. South.

[2]In the Meltzer and Richard (1981) framework, political competition is the threat of having a non-elite median voter set policies. The more unequal a society is, the further apart are the elite's and non-elite's policy bliss points.

each period into two factions, an old and new elite. The contest over political and economic institutions is played out primarily through competition between these elite factions. The old and new elites are distinguished in an important way. The old elite has control over the distribution of rents associated with control of the state (e.g. status, monopoly privileges). Members of the new elite have a special power to coordinate popular revolt, by virtue of their proximity to the people. The new elite retains this coordinating power as long as it is deemed *legitimate* by the citizenry. It can use its capacity to coordinate revolt to extract rents associated with control of the state (e.g. status, monopoly privileges) from the old elite. Under certain conditions, the old elite is willing and able to buy the new elite's support for repressive labor policies. If, for example, most rents come from an agricultural export sector, then new elites can be co-opted by giving them a stake in that sector. In this *co-optive* equilibrium, when old and new elite agree on policy, we have the *Iron Law of Oligarchy*, which was proposed by Michels (1911)[3] and which Acemoglu and Robinson (2006a) summarize as follows: "The reason for persistence is therefore not persistence of the elites, but the persistence of incentives of whoever is in power to distort the system for their own benefit."

According to the Iron Law, an oligarchic society should maintain repressive labor policies regardless of the elites' identity, unless disturbed by popular revolt. In our model the situation is more complex, and captures some important realities of elite survival. In particular, the elite's identity matters because the new elites have a different relationship with the citizens. The Iron Law is not a law but merely the special case when the new elite's economic incentives are *both* aligned with the old elite *and* trump other offsetting considerations. Often, political considerations drive a wedge between the incentives of the old and new elite and bend the iron law of oligarchy. Partial co-option occurs when the new elite opposes repressive labor policies but stops short of calling for revolt. When the new elite's legitimacy with the citizenry is tenuous, revolution may yet occur without their involvement. For example, the 2011 Egyptian revolution would not have been easy to forestall by co-opting the Muslim Brotherhood, because it did not have legitimacy among most young Egyptian revolutionaries. In other cases, no form of co-option is attainable. When the new elite is too powerful, it is prohibitively costly to co-opt. The old elite

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[3]Michels said: "Even when the discontent of the masses culminates in a successful attempt to deprive the bourgeoisie of power, this is effected only in appearance; always and necessarily there springs from the masses a new organized minority which raises itself to the rank of a governing class."

distributes none of the rents to the new elite. In response, the new elite calls for revolution in an attempt to wrest total control of state rents in a democratic transition that ousts the old elite. With sufficient coercive capacity however, the old elite may instead quell the revolution and perpetuate the oligarchic system. Otherwise, the old elite has a last resort, which is historically important in our context of the Caribbean. Namely, they can cede power to an external entity (e.g. a foreign power, the domestic military), which intervenes to suppress any attempts at popular revolt.

Levels of co-option can change over time and may have a particular life cycle. A path that is historically important is one in which the old elite initially co-opts the new elite. As it is gradually forced to cede too much of state rents to the new elite in order to appease the citizenry, the old elite eventually reverts to repression. For example, Thailand's May 2014 military coup has been characterized as "the culmination of months of maneuvering by the Bangkok establishment to sideline the populist movement that has won every national election since 2001." The establishment was "seeking to suspend democracy, at least in the short term, as it struggled to unseat a ruling party it has been unable to defeat at the polls" (Fuller (2014)). In Greece, politicians of the incumbent Conservative Party initially allowed tried to co-opt the left-leaning Center Union Party, but when it became clear the left would carry the next elections, the conservatives invited a military coup, leading to the 1967 coup d'état (Kassimeris (2006)). In Sri Lanka, independence from the British in 1948 unleashed new political forces, including a left wing Buddhist nationalist movement. As the old Christian elite of the country faced extinction from power, several members of it orchestrated an ultimately abortive coup in January 1962.

We test the implications of our model in very rich and granular micro-data on elites in 14 British Caribbean plantation colonies in the 19th century. There is a deep appeal in studying the Caribbean as a set of case studies for the dynamics of elite survival. One aspect of this appeal is that each of the 14 colonies was so small that we can can get a very complete picture of elites, both economic and political, and the dynamics of their changing identity and coherence. Another is that these islands experienced truly tumultuous exogenous shocks in that time. In 1833, London imposed the abolition of slavery, turning about 90% of the Caribbean's population into free citizens overnight, and giving rise to a new elite representing the freedmen that gradually obtained the land needed to qualify for voting rights. In 1854, a second shock, more subtle but equally far-reaching, hit when London imposed the *Caribbean Encumbered Estate Act* (EEA), a change in

bankruptcy law that dramatically increased turnover in plantation ownership, and very suddenly gave the planter elite a much more creole and colored identity. This altered the balance for new elites between co-option and preservation of legitimacy among the citizenry. Importantly, the EEA allows us to isolate the role of identity and elite competition in institutional persistence, because it occurred at a time when the economic circumstances of the plantation system – the terms of trade and sugar's importance in the agricultural mix – where very stable. The ultimate response of elites was far-reaching and radical. Eleven of the 14 islands had begun the 19th-century with strong locally elected parliaments, which were the main vehicle of elite power. All eleven parliaments survived the two decades between the abolition of slavery and the EEA, but two decades later, ten of the eleven had voluntarily abolished themselves. Through the lens of our model, we argue that the EEA caused an influx of new elites that was too rapid for old elites to co-opt them. Instead they chose to invite the Crown to run the government with unconstrained executive power in a system called *Crown Rule*.

By cross-country standards, the islands were very similar in their histories and economic structures. We take advantage of this low unit heterogeneity and begin the empirical section of the paper with a set of cross-island panel regressions. Using newly assembled data of all elected politicians in all 14 colonies from 1836 up to each assembly's abolition, we show that our preferred proxy measure for the entry of new elites has robust predictive power for the timing of Assemblies' abolition. Furthermore, the introduction of the EEA, and its interaction with cross-sectional proxies for its likely impact on elite churning, predict both the entry of new elites and the timing of Assemblies' abolition. We use these country-panel observations as a springboard into much more granular micro-evidence on the changing identity of and relations between the families that formed the political and economic elite of the Caribbean islands:

1. Using a collection of 76 plantation surveys of the 14 colonies at different times between 1815–1891, laboriously assembled from 48 separate sources, we show that turnover in plantation ownership increased dramatically after the 1854 passing of the EEA.

2. Combining the plantation data with the politician data, the paper further shows that (a) planters continued to completely dominate the assemblies in the early years after abolition, (b) that this dominance slowly declined thereafter, and (c) that the biggest change after 1854

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was not a decline in the planters' representation in the assemblies, but in their identity, as long-established planter families disappeared.

3. Using a complete history of Jamaica's parliament from 1640–1836, the only instance where consistent data exists on assembly membership before 1836, we show that particularly the most established planter disappeared from Jamaican politics after 1854.

4. We provide a detailed comparison between politics in Jamaica and Barbados. These were economically the two most important islands. In addition, Barbados was the island where turnover in plantation ownership was lowest, and the only island that never abolished its parliament. We show that in both islands the voting network early on consisted of a single network, which largely voted in favor of planter issues. In Barbados this remained true after. In Jamaica by contrast, a second voting bloc emerged, which represented non-planter interests. In other words, the voting network in Jamaica became partisan, or characterized by 'homophily'

5. For only Jamaica, we also know the race and profession of all parliamentarians. We show that many of the colored new members of Jamaica's assembly – and all those colored members that were planters – voted consistently in the planter bloc against smallholder interest; i.e. it was economics and not race that determined voting behavior. Lastly, while the size of the planter faction declined only marginally after 1854, its voting coherence as a political bloc declined very markedly.

This paper speaks to a well-established literature on the consolidation and stability of democratic regimes (Haggard and Kaufman (1997), Przeworski, Alvarez, Cheibub, and Limongi (2000), Boix (2003), Acemoglu and Robinson (2006b), Haggard and Kaufman (2012)). In that literature, political competition often leads to a *strengthening* of democracy (Acemoglu and Robinson (2001), Brückner and Ciccone (2011), Besley et al. (2012)). By contrast, this paper shows that political competition may lead elites to abolish democracy altogether and initiate a regime switch to autocracy if the cost of a non-elite democratic government is high relative to that of an autocratic regime. This paper also speaks to a broader literature on the nexus between endogenous institutional change, elite persistence, and economic growth (North and Weingast (1989)).

The paper is structured as follows. Section 2 introduces and analyzes a model of oligarchy under elite competition. Section 3 provides a detailed historical account of the abolition of slavery, its consequences, the EEA and the introduction of Crown Rule in the Caribbean islands, relating all these historical developments to our model. The empirical analysis is set out in sections 4 and 5. Section 6 concludes.

2 Model

Society consists of a set of individuals I, indexed by i.[4] Interactions occur over an infinite horizon. Time is discrete and denoted by $t = 0, 1, 2 \ldots$ Each period society is partitioned into an elite and citizenry (or workforce). The elite is a fine set of individuals, whereas the citizenry is a continuum. During period $t = 0$, all that occurs is that some individuals, composing the initial elite E^0, are each endowed with one unit of land. The initial citizenry, $C^0 \equiv I - E^0$, is endowed with no land. Individual i's initial landholding is denoted by $\ell_i^0 \in \{0, 1\}$, so that $E^0 = \{i : \ell_i^0 = 1\}$. The quantity of land is finite and fixed at M units for all time. Hence the number of elite places is a finite number $|E^t| = M$ for all t. While the number of elite places is fixed, the identity of the elite changes over time. We assume the set of citizens C^t is a continuum with mass L which is also fixed for all t.[5]

From period 1 onwards, interactions occur. Society begins each one of these periods in one two states denoted by z^t, indicating the political institutions prevailing at the time, namely non-democracy ($z^t = 0$) or democracy ($z^t = 1$). The initial state is set to be non-democracy, $z^1 = 0$. Thenceforth the state is determined endogenously.[6]

Let us specify the timing of events within a given period $t \geq 1$, in each state.

Non-democracy, $z^t = 0$:

- An individual's land holdings at the beginning of the period are the same as his holdings at the end of the previous period, that is ℓ_i^{t-1}. The elite, i.e. the set of landowners, at the

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[4]We can also think of each $i \in I$ as a dynasty of players.

[5]A continuum of citizens means that the size of the citizenry is unaffected by outflows to the elite.

[6]As is common in the literature, voting institutions are not explicitly modeled. Democracy means that all citizens directly vote on a policy, as would be the case in a direct democracy. Limited democracy in which only elites vote on policy is referred to as non-democracy.

beginning of period t is thus $E^{t-1} = \{i : \ell_i^{t-1} = 1\}$. The set of workers/citizens is $C^{t-1} = I - E^{t-1}$.

- Because of exogenous wealth-shocks, $m \leq |E^{t-1}|$ members of the elite offer their land for sale. Each $i \in C^{t-1}$ can choose to bid for land on offer.[7] The market clears and the registry of landowners is updated. The elite member selling land leaves the population (e.g. migrates to London).

  The partition of the population is updated into an elite E^t and citizenry C^t. The elite itself can be partitioned into an 'old elite' $O^t \equiv E^{t-1} \cap E^t$ and a 'new elite' $N^t \equiv C^{t-1} \cap E^t$, whose land is newly acquired (and who are not part of the citizenry at time C^t).

  In this draft, we are abstracting away from an aspect which we will add to the model, which is "social identity." In the present set-up, new elites become old elites over two periods, and there is no legacy of having once been a non-elite. We will introduce this legacy in the form of social identity, which will means new elites become established more slowly, and will lose their legitimacy with the citizens more slowly. In the present set-up, newcomers join elite society very rapidly, and legitimacy is mechanically lost after one period. This makes the 'iron law of oligarchy' more likely to emerge.

- Rents from control of the state, simply 'rents' henceforth, are disbursed among the elite E^t. These rents are independent of income from land and labor. In particular, each period a pot of size R (dollars) is divided among the old and new elite in the following manner.

  The old elite O^t offers a contract to the new elite N^t. Acting in a unified manner, the new elite chooses whether or not to accept the contract. If it rejects, then the new elite gets none of the rents; the old elite keeps R, which is evenly divided among its members.

  If the new elite accepts the contract, then it receives a payoff of $R_N \leq R$ which is contingent upon its subsequent actions during the period as follows.

- Economic institutions are set in the following manner. They come in two forms, a labor repressive institution $\tau^t = 0$ and a competitive labor market $\tau^t = 1$. The old and new elite simultaneously and independently announce support for one of these institutions. The

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[7]This means that an individual can own at most one unit of land.

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policy announced by group $G \in \{O, N\}$ is denoted by $a_G^t \in \{0, 1\}$. When both groups support the same policy, $a_O^t = a_N^t$, that policy is implemented. Otherwise, the old elite's announced policy is implemented with probability p and the new elite's announced policy is implemented with probability $1 - p$. Thus, p is one (exogenous) measure of the power of the old elite.

- The new elite decides whether to call for revolt, $\gamma^t = 1$, or not, $\gamma^t = 0$.

  If the new elite supports competitive labor markets, $a_N^t = 1$, then it has *legitimacy* among the citizenry, which means that it can play a role in coordinating revolt. Suppose the new elite is legitimate. Then the citizenry is attentive to whether the new elite calls for revolt and a successful revolt occurs with probability $f(\gamma^t)$, where $f(1) > f(0)$. That is, a call for revolt by the new elite increases the likelihood of successful revolt.

  If the new elite supports labor repressive institutions, $a_N^t = 0$, then it is illegitimate from the perspective of the citizenry. The probability of successful revolt is $f(0)$, regardless of γ^t, i.e. whether the new elite calls for revolt or not.[8]

  Suppose a successful revolt occurs. If the new elite is legitimate and had called for revolt, it captures all the rents R for the period, which is evenly divided among its members. The old elite and citizenry get nothing. If the new elite is illegitimate or had not called for revolt, then all the rents R for the period go to the citizenry, being evenly divided among its members. After any successful revolt, a transition to democracy occurs, such that $z^{t+1} = 1$.

  If revolt does not occur or is not successful, the new elite receives state rents of $R_N(a_N^t, \gamma^t)$, which is evenly divided among its members and depends on whether the new elite supports labor repressive institutions and calls for revolt. Recall that this contingent payment is chosen by the old elite. In addition, there is no transition to democracy, $z^{t+1} = 0$.

- Wages $w(\tau^t)$ are paid to the citizenry and profits $k(\tau^t)$ to the elite depending on the economic institutions in place.

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[8]To illustrate, consider the case of Egypt at the time of the 2011 revolution. The military was the old elite, and the Muslim Brotherhood the new elite. The citizenry were represented largely by the young revolutionaries who were in the vanguard of the Tahrir square protests. The Muslim Brotherhood joined the initial protests in January 2011, calling for revolution. This led to the ouster of President Mubarak. The Muslim Brotherhood did not, however, support further protests. They became political insiders, contested political power and eventually lost legitimacy. The revolutionary youth were sidelined as the military consolidated power.

As in Acemoglu and Robinson (2008), each citizen $i \in C^t$ inelastically supplies one unit of labor. Each member of the elite $i \in E^t$ employs citizens and uses their unit of land to produce a unique private good. The production function is linear with constant marginal productivity A.

In a competitive labor market $\tau^t = 1$, each citizen receives his marginal product of labor,

$$w(1) = A$$

and each member of the elite makes a profit of

$$k(1) = 0.$$

Under a labor repressive institution $\tau^t = 0$, each citizen receives less than his marginal product of labor. Let $\lambda < 1$ be the fraction of national income going to citizens. Then wages are:

$$w(0) = \lambda A$$

and profits to each elite member are

$$k(0) = (1 - \lambda)A\frac{L}{M}.$$

The old elite maximizes the discounted sum of its profits plus state rents, as does the new elite. The discount factor is $\delta < 1$.

Democracy, $z^t = 1$:

Under democracy $z^t = 1$, the only difference is that all individuals $i \in I$ vote for their preferred economic institution, τ^t, revolt cannot occur and state rents R are divided evenly among all members of the elite (old and new), E^t. We assume for convenience that democracy is an absorbing state: if $z^T = 1$ then $z^t = 1$ for all $t > T$.

2.1 Some immediate results

- The optimal contract $R_N^*(a_N^t, \gamma^t)$ sets:

$$R_N^*(0,0) > R_N^*(1,0), R_N^*(0,1) > R_N^*(1,1) = 0. \tag{1}$$

- The new elite will never call for revolt when illegitimate.

- Competitive labor markets prevail under democracy by the median voter theorem.

2.2 Conjectured Equilibria

- *Unified Elite.* The new elite chooses $(a_N^t, \gamma^t) = (0,0)$ in each period. Labor repressive insti-
  tutions are implemented with probability one. Revolt occurs with probability $f(0)$. When a
  revolt occurs, the new elites – because they lost legitimacy by letting themselves be co-opted
  – share none of the spoils if it succeeds.

- *Partially Co-opted New Elite.* The new elite chooses $(a_N^t, \gamma^t) = (1,0)$ in each period. Labor
  repressive institutions are implemented with probability p. Revolt occurs with probability
  $f(0)$. This is the 'Aung San Suu Kyi equilibrium' or 'Dalai Lama' equilibrium, where new
  elites engage in a sort of civil disobedience that is unlikely to affect policy but maintains their
  legitimacy.

- *Elite Conflict.* The new elite chooses $(a_N^t, \gamma^t) = (1,1)$ in each period. Labor repressive in-
  stitutions are implemented with probability p. but the new elite is demanding change and
  calling for a revolt, which therefore occurs with higher probability $f(1)$.

A unified elite equilibrium can be supported when the size of state rents R (which the old elite
can use to buy off the new elite) is large relative to the size of the new elite m (which could be
made time-dependent and subject to a temporary shock).

2.3 Crown Rule

Crown rule can be interpreted as the intervention of a foreign power (alternatively the domestic
military) upon invitation by the old elite. To study the move to crown rule in the Caribbean,

suppose that in state 0, non-democracy, the old elite can choose between offering a contract to the new elite as above or sharing the rents R with a foreign power in return for protection. The foreign power chooses the society's economic institutions for the period τ^t and lowers the likelihood of successful revolt to $\overline{f} < f(0)$. The foreign power has an outside option worth $R_F < R$ per period. Hence if the old elite takes this option, the foreign power receives rents of R_F for the period and the old elite receives $R - R_F$, which is evenly divided among its members.

If the old elite cannot effectively buy off the new elite, i.e. it must give up a large fraction of R to ensure the new elite does not oppose labor repression and does not call for revolt, then it may benefit from contracting with the foreign power. It is costly to buy off the new elite when the new elite is effective at coordinating revolt ($f(1) - f(0)$ is high) and profits from land under labor repression k_1 are low. Under these conditions, the old elite may benefit from external intervention. In addition, the new elite will share the old elite's interest in external intervention when the baseline probability of revolt $f(0)$ is high, i.e. when the citizenry can effectively mount a revolt on its own. If such a revolt occurs the new elite will receive none of the gains from ousting the old elite. Hence positive shocks to $f(0)$ can lead to the old and new elites jointly ceding power to a foreign entity. When $f(0)$ is low, however, the new elite will oppose such moves by the old elite, because there is little chance of revolution going ahead without its participation.

3   The Post Slavery Caribbean Plantation Colonies

Before Abolition: Table 1 shows the 14 islands we study. They were founded in three waves. The oldest — Antigua, Barbados, Jamaica, Montserrat, Nevis, St. Kitts, and the Virgin Islands — were founded in the 1600s by small-scale British planters, much like those in the Chesapeake Bay. The second wave — Dominica, Tobago, St. Vincent, and Grenada — were annexed from France at the end of the Seven Years War in 1765, and were resettled by sugar planters from the other Caribbean islands The last three colonies — Trinidad, St. Lucia, and Guyana — were ceded to Britain between 1797 and 1803. Sugar was introduced into the Caribbean in the late 17th century, and with it wealthy *great planters* came to dominate while white commoners left for the American colonies, their place taken by an ever-expanding population of imported slaves, (Taylor (2002, ch. 11)). By 1800, the *great planters* were the "wealthiest men in all of English America" (Galloway

Table 1: 14 Islands

Colony	Abbrev.	Year Founded	Year of Regime Change	Population 1836	Pop-Share White, 1836	Density 1836
Antigua	ATG	1632	1867	35,188	5.4	125
Barbados	BRB	1629	never	105,812	12.8	246
Dominica	DOM	1763	1862	16,207	3.9	21
Grenada	GRD	1763	1876	17,751	2.6	52
Jamaica	JAM	1655	1860	381,951	8.2	34
Montserrat	MON	1634	1861	6,647	4.3	65
Nevis	NEV	1623	1867	7,434	5.4	80
St. Kitts	STK	1628	1867	21,578	6.4	113
St. Vincent	STV	1763	1866	26,659	4.7	69
Tobago	TOB	1763	1873	11,456	2.3	38
Virgin Islands	VIR	1672	1855	7,471	12.4	49
Guyana	GUY	1803	n/a	66,561	0.7	6
St. Lucia	SLU	1803	n/a	17,005	11.3	27
Trinidad	TRI	1797	n/a	34,650	8	7

Notes: The Data in this table are from the Colonial Blue Books and from Martin (1839). Year of regime change is not applicable for the 3 late colonies, which were founded as Crown Colonies. Year founded refers to the year a place became a *British* colony. The only non-island, Guyana, had very big hinterlands, so we use only its extent as it was surveyed in the 19th century. We define Guyana's historical border using the map in Higman (2000, figure 1.8). We geo-coded this map and calculated Guyana's sugar suitability share based on these borders. The original map and our geo-coding of it is displayed in online appendix figure 1.

(2005)). From here on, however, the tide was turning against the great planters. Slavery, which was critical to Caribbean wealth, came under increasing attack from the rising Abolitionist movement in London. In 1807, British parliament abolished the slave trade, and 26 years later, passed *An Act for the Abolition of Slavery* (1833).

After Abolition, 1833-1853:

When emancipation finally came on August 1, 1838, former slaves immediately fled the plantations. In many colonies upwards of one-half were gone by early Fall (e.g., Hall 1978, 58; Riviere 1972, 13).[9] Although many had returned to wage labor by about 1843, the "flight off the estates" immediately after abolition was an ominous sign of the conflicting interests of freedmen and planters. Ever after, "the main fact of life in the free West Indies was that black laborers were unwilling to remain submissive and disciplined cane workers" (Green, 1991, p. 170). As noted in a set of famous travel diaries of the time

"If I were asked to point out the chief obstruction to a satisfactory solution of the West

India labor question, I should answer without hesitation, want of confidence between

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[9]Slavery ended in 1836, but abolition only really became effective in 1838, after a two-year transitional period of quasi-indenture called *Apprenticeship*.

employer and employed. The planters cling unwittingly to the shreds of the system of coercion in which they were once taught to believe." (Sewell, 1861, p.158)

The planters' fortunes hinged primarily on their ability to use the state's legislative, judicial and executive arms to secure a steady supply of labor at a low cost. However, operating under the watchful eye of London Abolitionists, Caribbean planters could no longer take the law into their own hands. Lowes (1994, ch. 5) writes that "because of pressures from the Colonial Office, a comfortable translation of pre-emancipation legal distinctions into distinctions of skin color was not possible." Instead of using the whip to raise workers' effort or lower wages, they had to rely on *legal coercion*. Craton (1997, p. 392) argues that "there were organized efforts to evict peasants from the land throughout the Caribbean," and McLewin (1987, p. 189) argues that "assemblies brought into law an umbrella of coercive acts with the purpose of creating a landless peasantry."[10] Planters could make it difficult for freed slaves to obtain legal title to un-alienated public Crown land or abandoned plantations.[11] They could also make it difficult to retain land by imposing high so-called *quit rents*, "parochial land taxes that pressed hard on small proprietors" (p. 184 McLewin, 1987). Laws against vagrancy, trespassing and squatting made labor immobile across parishes and made it more difficult for plantation workers to strike out on their own.[12] Prominent in the early years after Abolition was the figure of the "planter-judge:"

> "Among the new laws that worried [the Colonial administration] was the Vagrancy Act, which deviated from the provisions recommended by the British orders in council issued 7 September 1838, being generally 'more severe.' Particularly troubling was a provision giving summary jurisdiction to local magistrates, who, being planters in most cases, could be expected to harbor biases against allegedly 'vagrant' laborers."
> (Holt, 1991, p.185)

Most such legislation "gave summary jurisdiction in land tenure and trespass cases to any two magistrates, one of whom even could be the complainant." In other words, two planter-judges

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[10]For example, "crown land was priced to encourage labor for wages and was chiefly in remote locations and of poor quality" (Bolland (1981)) and "parochial land taxes pressed hard on small proprietors" (McLewin (1987, p. 184)).

[11]"Crown land was priced to encourage labor for wages and was chiefly in remote locations and of poor quality." (Bolland (1981))

[12]In models of coercive labor markets, coercion of workers (using the whip) relaxes workers' incentive compatibility constraint. By contrast, reducing their outside option relaxes workers' participation constraint (Acemoglu and Wolitzky (2011), Naidu and Yuchtman (2013), Dippel, Greif, and Trefler (2015)). The evidence collected in Dippel et al. (2015) shows that the latter form of coercion was by far the more important one in the post-slavery Caribbean.

together could persecute any worker or squatter. While keeping land out of freedmen's hands was essential to maintain a willing workforce, there was also a political calculus to it, which is our primary focus here. To limit the franchise and, with this, political competition.

Elites' political power found its expression in large part in their control of the local legislatures, the *Assemblies*, which the Caribbean's original smallhold settlers had pushed for in order to control taxes and spending (Taylor (2002, p. 246)). These assemblies were powerful institutions that "seriously curtailed the powers of the governors in the colonies" (Morrell and Parker, 1969, p. 435), and

> "in addition to their legislative functions, they had extensive executive powers. Colonial Acts assigned all important administrative tasks to special boards, or commissions, upon which members of the assembly enjoyed either exclusive or majority control" (Green (1991, p. 68)).

Not only could they veto the budget including the governors' salary, local elites were not afraid of using the assemblies to publicly ostracize Crown administrators that over-stepped their boundaries:

> "When Henry Barkly, the newly appointed Governor of Jamaica, dispatched a special message to the Assembly suggesting the postponement of a legislative action, he was publicly ignored and privately reproached. Had he not been new to the office and popular with assemblymen, he would have been declared in breach of privilege, and the Assembly would have suspended its business until Barkly had submitted an appropriate apology." (Green, 1991, p. 70)

The main conflict of interest between the planters and freedmen was on the issue of taxation and public-good provision. Freedmen's primary concerns were land redistribution and public-good provision. Planters were naturally averse to land redistribution and were also disinterested in the expansion of education and health services, which they provided themselves as club goods rather than as public goods (Sewell (1861, p. 39), Dookhan (1977), Brizan (1984, p. 163)). Holt (1991, p.196) summarizes this view:

> "Planters generally opposed all measures to expand education. Very likely the idea of spending money primarily for the benefit of the black majority did not appeal to most

planters. Most of the white estate managers had no family or children, at least none they chose to recognize officially. The wealthier resident planters sent their children to a few select private academies on the island and to England."

Whom did the assemblies represent? Before abolition, assemblies were everywhere the main representation of planter interest. There is little doubt that the franchise remained concentrated and parliamentary seats dominated by planters in the early years after abolition as well:

> "Even after post-emancipation franchise reform had been enacted, the number of qualified electors in the colonies was small. A few merchants, lawyers, and medical practitioners secured seats in the Jamaica Assembly before 1840, but planters dominated colonial government in the thirties and forties. Barbados merchants petitioned that they were totally unrepresented in their Assembly. In 1837, twenty-two of twenty-five Antigua Assembly were planters." (Green, 1991, pp.73)

London was clearly aware that the assemblies were not likely to represent the interests of the people that had just been freed from slavery.[13] However, while it had imposed abolition on its colonies, it was not prepared to impose a constitutional changes on them. So although colonial governors would have been instructed to look after the freedmen's interests to the extent possible, the reality for a governor was that

> "to join with local white society meant a pleasant tour of duty, to fight them meant political conflict and social ostracism. Inevitably, the governor passed smoothly into the union, political and social, of government and vested interests." (Lewis, 2004, p. 104)

Craig-James (2000, p. 252) recounts a confrontation between Tobago's governor and Tobago's legislative council: The legislators stopped the governor's planned progressive land tax reform by tieing it to a salary cut to the governor.

This planter dominance was, however, built on shaky foundations. Before abolition it had been, throughout the Caribbean, "distinctly the exception for a member of the legislature to be returned by more than 10 votes" (Wrong (1923, p. 69)). Despite this narrow franchise, the property holdings required to vote were actually quite low, having typically staying at their original 10-acre

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[13]Henry Taylor, the colonial office's supervisor of West Indian affairs, declared the assemblies to be "eminently disqualified for the great task of educating and improving a people newly born to freedom" (Wrong (1923)).

threshold from the Caribbean's smallhold days (Wrong (1923)).[14] Because the price of 10 acres of land was certainly within the purview of what a smallholder could save up over a number of years, the planter's voter base could this overwhelmed relatively quickly. However, freedmen seemed to generally not be particularly concerned with obtaining the amount of land required for voting rights. While there were some true feats of coordination in purchasing land – Lewis (2004, p.302) recounts an episode were sixty-three freedmen jointly purchased Northbrook Estate in Guyana in 1839 – these appear to have been isolated , and coordination seems to generally not have been aimed at crossing the 10 acre threshold needed to obtain the franchise. Craig-James (2000, p.89) and Hall (1959) use data for the distribution of smallholds to show, for Tobago and Jamaica respectively, a clear preponderance of 5–10 acre smallholds, which were economically viable but did not give the franchise. See also Craig-James (2000, p.120) on this.

The 1854 Encumbered Estate Act and Its Consequences: From its nadir in 1843, the Caribbean plantation system went on to recover and stabilized for the next 40 years, with sugar still constituting more than 65% of exports in eleven of the fourteen islands in 1883. This recovery was driven by several factors. First, planters re-exerted their control over local labor markets (Dippel et al. (2015)).[15] Second, in 1849 Britain repealed the *Navigation Act*, allowing Caribbean planters to sell their sugar directly to North American merchants. Third, the world sugar price recovered in the early 1850s and then remained stable until 1884 when German and French beet sugar subsidies triggered another 40% decline in the world sugar price.[16]

While the plantation system recovered for a time, its profitability was a shadow of the past, as profits got squeezed by lower prices and higher labor costs. Plantations continued largely to turn operational profits, but could no longer cover the encumbrances that many British planter families had attached to their estates during the 18th century. Encumbrances were regular monetary commitments to the wider family in England that were to be paid from the plantations' revenues.

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[14]The franchise in the Caribbean, as elsewhere in the British colonies, was obtained primarily through land ownership. The franchise rules reported in the *Blue Books* show that there is very little variation in the 10-acre threshold across colonies.

[15]Dippel et al. (2015) investigate the effects of the global decline in sugar-prices on labor markets in the 14 British Caribbean sugar colonies. They find a market-based negative effect of the price decline on wages, but also a positive institutional effect because the erosion of the plantation system's coercive power (online appendix figure 4) increased wages.

[16]Online appendix figure 2 shows London sugar prices from 1838 – 1914. Online appendix figure 3 shows that these were entirely determined by market forces outside the Caribbean. Online appendix figure 4 shows that the dominance of sugar as the Caribbean's main export crop remained largely unbroken by 1883.

As obligations from encumbrances piled up, many plantations started their slide into bankruptcy. Because the legal tangle of encumbrance obligations was prohibitively expensive to resolve, many nominally bankrupt plantations continued operating while piling up debt with both the encumbrancers and the merchants that advanced them credit (Beachey (1978, ch.1), Cust (1859, pp.9–13)). This cumbersome bankruptcy law changed in 1854, when the *Caribbean Encumbered Estate Act* (EEA) passed in British Parliament. The innovation of the EEA was threefold: First, it allowed any of the plantations' many potential encumbrancers and creditors to initiate bankruptcy proceedings; second, it established a clear legal hierarchy of creditor claims, and third, it instituted a specialized court in London with offshoots in the colonies that ensured that these claims were processed in a timely manner (Cust (1859, pp.5-7, 13-15), Sewell (1861, pp.82, 89)). The EEA led to dramatic turnover in the ownership of sugar plantations throughout the Caribbean.

> "The act played a key role in the snowballing process of turnover–so great a role, in fact, that one merchant reported that all but eight estates changed hands between 1860 and 1897" (Lowes, 1994, p.21)

Who were the new planters? Most of the sold estates ending up in the hands of local merchants and former estate managers, so-called attorneys (Lowes (1994), Craig-James (2000)). The EEA established priority among claimants of the merchant's lien, which gave the merchants that financed the day-to-day plantation operation first call to take over the estates (Crossman and Baden-Powell (1884), Cust (1859, pp.5-7, 13-15)). When these merchants were local they often took over the estates they had hitherto financed ((Brizan, 1984, p.201)). When the merchants were in London, they usually resold the estates to local interests (Lowes (1994, ch.1, pp.19-22)). As a result,

> "a new petit bourgeois class emerged, consisting of merchants, successful estate owners without the ancestry and traditions of the older landed class members of the professions, and an expanding managerial sector. This class was far more heterogeneous than the class it was gradually displacing in economic and political affairs. [] Gradually the appointments to high political office reflected the social arrival of these new individuals. They tended to be politically conservative, but theirs was a less rigid conservatism than had prevailed for centuries in the Caribbean." (Meditz, 1987, p.31)

> "One group that increasingly won seats in the Assembly was the rising class of mer-

chants. These men were now becoming the owners of bankrupt estates. [...] Next were the powerful attorneys who in addition to being attorneys of the majority of estates themselves also owned estates themselves. [...] Far from replacing the plantocracy, these new groups helped strengthen it, for they had invariably bought up bankrupt estates and could most appropriately be called the new planting interest." (Brizan, 1984, p.201)

Not only was the elite being churned, it changed its complexion, becoming much more creole, i.e. composed of members born, raised and resident on the islands. It also became much more colored, with many new planters whose parents or grandparents had been slaves (Lowes (1994), Craig-James (2000, p.199-201), Lewis (2004, p.67)). A contemporary account lamented

"the English of those islands are melting away. That is a fact to which it is idle to try to shut our eyes. Families who have been for generations on the soil are selling their estates everywhere and are going off. Lands once under high cultivation are lapsing into jungle . . . The white is relatively disappearing, the black is growing; this is the fact with which we have to deal." (Froude, 1888, ch.XVII)

There is no disputing the fact that the colored and black citizens had already been gaining political and economic influence in the years 1835–1853. For example, Lewis (2004, p.67) states that

"a brief generation after Emancipation both black and coloured men had obtained positions of prominence, not only as merchants and property owners but also in the professions."

However, it was the sudden creolization of the planters after 1854 that tipped the balance.

"During the late 1850s, in fact, the white, non-Jewish core of the Planter party would decline to as few as seven members, thus becoming a minority within their own party. Ironically, the Planter party's thinning ranks would be filled out thereafter by Afro-Jamaican and Jewish representatives. " (Holt, 1991, p.223)

It was only when long-established planter families sold their estates and left the islands *en masse*, that the monolithic nature of the planter elite eroded, and old elites could no longer co-opt new

planters fast enough to maintain the existing equilibrium. Brizan (1984, p.201–202) states that "especially after 1850, the vacuum created by the exodus of White planters was now being filled by the rich Coloreds."

Relations between New Elites, Old Elites and Citizenry:

In the model, whether new elites can be co-opted depends on the alignment of their economic interests with the old elites and on the need to maintain legitimacy with the citizenry on the other hand. The general impression one gets of the Caribbean in the mid-19th century is that new elites were co-opted to a large extent, at least before the EEA. Green (1991, p.296) writes about the entire Caribbean at this time,

> "Although whites continued to dominate society in most colonies, the rigid barriers that had divided them from coloured people were eroded in the free period. In Dominica and Montserrat coloured men quickly assumed a dominant role in the legislature. They were a powerful element in Jamaica. [...] Increasingly, men of colour acquired plantation property. They held most clerkships, assumed an important place in the professions, and by the end of our period they dominated the lower and mid-ranking government positions in many colonies. In numbers they constituted the largest segment of the European culture group."

Lewis (2004, p.67) goes even further, concluding not only that "effective leadership [of the West Indies] passed increasingly to the coloured intermediate group" but also that "they were the carriers of the 'white bias'."

However, accounts from different islands do straddle the spectrum between no co-option and full co-option. In Dominica, Honychurch (1995, p.69-71) speaks of "two unofficial parties," with the "Mulatto ascendancy" firmly in opposition to the white attorneys, and "pressing for legislation promoting the welfare of the newly liberated citizens of the island." By contrast, in Tobago the description of politics rings of a fully co-opted black and colored elite:

> "The planter/merchant oligarchy was, over time, no longer almost exclusively white. [...] The whites and coloreds in the dominant class had ties of kinship, friendship, interests and predicaments. The members of the dominant class including the most estab-

lished of the black planters, attended the governor's balls, their wives and daughters
pillars of the Church of England" (Craig-James, 2000, p199-201)

In fact, Craig-James (2000, p.199-215) gives many examples of successful black and colored planters in Tobago. Jamaica, with the largest and most diverse economy, fell in the middle, coloreds with plantation interests siding with the planters and white merchants without plantation interests siding against planters.

> "In describing these various elections I have noticed the colours of the candidates,
> but I ought to add that in no instance has the contest appeared to be between colours
> . . . Party contests are now between those who advocate the supremacy of the upper
> classes and those who strive for their own advancement on the basis of popular repre-
> sentation; [that is, between] those who desire the rule of the few or the upper classes,
> and those who advocate the influence of the many or the lower classes." (Charles M.
> Metcalfe to Edward G. Stanley, 9 February 1842, in Holt, 1991, p.214)

Regime Change: The new planter elites faced several tensions between their economic interests and social pressures they were exposed to: One problem the new planters faced was that they took over estates that had often been abandoned and consequently squatted on. New owners found the eviction of squatters from their newly acquired grounds to be highly acrimonious (Holt (1991, p.115,122,267-269)). Another problem new elites faces was in voting for the sort of coercive legislation described in the beginning.

The model suggest that co-option becomes very costly for old elites when there are too many new elites that need to be co-opted. When co-option becomes too costly, three things can happen. One is that a country enters a path of democratic transition where new elites are not co-opted, vote in favor of the citizenry, and full democracy is implemented. This did not happen in the Caribbean. A second possibility is costly repression. This is likely the case of the U.S. South. However, in the Caribbean, repression was too costly. Whereas in the South a "black county" may have been 50 % black all of the Caribbean plantation colonies were more than 90 % black. The Caribbean thus lacked the white manpower for an equivalent of the Ku Klux Klan.

The third possibility is to cede power to an outside force that will chose policies that are somewhere between the old elites' and the citizenry's preferred choices. This is what happened in the

Caribbean.[17] From 1854 to 1877, 10 of the 11 Caribbean parliaments simply abolished themselves. Parliament would vote on a bill to abolish parliament and invite the Crown to write a new constitution for the colony. In all cases, this new constitution followed the standard template of *Crown Colony* rule: All functions of government were controlled by the colonial administration, with the governor appointing the local legislature and judiciary. Locally elected parliament was replaced with a legislature that consisted partly of colonial officials and partly of local appointees. Historians have argued that this voluntary dismantling of Caribbean parliaments was planter elites' response to the political competition of freedmen: While they had traditionally "jealously guarded [the assemblies] against interference by the colonial adminstration" Wrong (1923, p. 70)), Lowes (1994, p. 35) argues that this tradition was overcome because

> "in the end, the demand of an increasingly restive nonwhite middle class for a voice in
> island affairs proved the greater fear and they voted themselves out of office,"

and Ashdown (1979, p. 34) concludes that

> "the colonies gave up their elected assemblies voluntarily, for in most cases the white,
> privileged classes preferred direct imperial government to the government of the col-
> ored classes who were slowly obtaining greater representation in the legislative coun-
> cils."

Who Supported Regime Change? In the model, a new elite that in equilibrium maintains its legitimacy will not support regime change, because it will share in the spoils of a successful revolt when it occurs. With legitimate new elites, regime change will thus only be initiated by the old elite. If, however, the new elite lets itself be co-opted, it will not share in the spoils of revolution, and thus, if there is an exogenous increase in the likelihood of a successful revolt, the new elite will then also support regime change. It appears that in many places, the new elite was co-opted and did support regime change, because ""they felt just as threatened by mob violence as the whites" (Green, 1991, p.296). (Green, 1991, p.296) and (Dookhan, 1977, p.202-205) both tie regime change in several islands directly to the increasing threat from violent uprisings, with the latter

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[17]While the equilibrium path of the post bellum U.S. South may have been primarily one of repression, that of ceding power to an outside source also occurred: The county government of Dallas County in Alabama asked the governor to dissolve it when a black majority was looming in 1880, and the county government was not reestablished until 1900 (Kousser (1999)).

stating that "it was probably hoped that Crown Colony Government would preserve the existing political status quo" (Dookhan, 1977, p.202-205).

Caribbean historians' accounts rarely expand on the exact details of how regime change came to pass. One notable exception is Honychurch (1995, p.69-71), whose account of Dominican politics tells a cloak and dagger story of regime change that was pushed through overnight and against strong opposition from parts of the Assembly. This is interesting because Dominica appears to have been a place where the new elites were not co-opted into the plantocracy. Grenada is another place where new elites appear not to have been co-opted to a large extent.[18] Unfortunately, (Brizan, 1984), who offers the most detailed historical account of Grenada's politics, falls very flat when it comes to the circumstances of regime change. However, the *Minutes of Grenada's Assembly* – See Online Appendix A.2 on the different islands' *Assembly Minutes* – offer some insight: On September 15th 1875, the day that *An Act to Amend and Simplify the Legislature of the Island of Grenada* came to a vote, an amendment was introduced by a faction of the Assembly to rename the bill into *An Act to diminish the rights of the people in electing, from their own body, fit and proper representatives, and to lay oppressive taxation on every side*. The Assembly minutes make no further comment on this proposed amendment, but it clearly shows that Grenada's elites did not uniformly support regime change.

Regime Change Evaluated: In the model, power is ceded to an outside force that will chose policies that are somewhere between the old elites' and the citizenry's preferred choices. Is this an accurate description of the Crown? Primary accounts contrasting the freedmen's fortunes in the initial Crown colonies of St. Lucia Trinidad and Guyana to those in the other 11, suggest that policies in the Crown colonies were more favorable to the ex-slaves. Dookhan (1977, p. 70) writes that "in Trinidad, the Crown disallowed attempts [by planters] to forbid immigrants from leaving the estates" and that public goods provision was generally seen as superior, financed by more progressive taxation. This is echoed in Rogers (1970, p. 96). Thus, the Crown indeed appears to have chosen policies that were somewhat more beneficial to the freedmen. However, while Crown Rule may have been more beneficial for the citizens in the three colonies that that always had it from the beginning, the endogenous introduction of Crown rule, initiated and controlled by the

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[18]Lowenthal contrasts St. Vincent which he thinks had "the most regressive plantocracy" of the Caribbean to Grenada with its "progressive and energetic peasantry" (Richardson, 1997, Foreword).

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elites, could be expected to yield results more favorable to elites. Indeed, McDonald (1991) argues that after Crown Rule was introduced in Jamaica

> "the subsequent two decades witnessed changes in economic conditions and govern-
> mental policies that caused land consolidation and the consequent progressive demise
> of small landholders"

and (Craton, 1988, p. 165) notes how

> "throughout the 19th century, each major inquiry [by English Parliament] into the
> British West Indies noted with amazement that nothing had been changed since the
> last report".

Alternative Reasons for Regime Change: The Crown was clearly dissatisfied with the way local elites ran its colonies, and sought more control over them. Henry Taylor, the colonial office's supervisor of West Indian affairs, publicly chastised the assemblies for being "eminently disqual- ified for the great task of educating and improving a people newly born to freedom" (Wrong (1923)). However, the Crown was not willing to unilaterally impose Crown Rule, and in the end, the Abolition of parliaments was everywhere locally initiated. In online appendix section Online Appendix C, we provide extracts from the several colonies' Assembly Minutes that describe in detail how the constitutional changes came about. That evidence shows clearly that while the Crown probably did put added pressure for direct rule on places where elites were more under more threat, it simply seized upon the increasing demand by the elites for protection that existed in those places.

Our focus is on old elites trying to co-opt new elites, and we think of the EEA as an exogenous increase in the presence of new elites, which need to maintain legitimacy with the citizenry. While we can document this sudden influx of new members to the elite, we also want to rule out that the EEA simply caused an expansion of the franchise and thus an increase in the citizenry's influence more directly.[19] We are not concerned about this because the EEA very clearly distributed land from planters to planters, i.e. there was no expansion of smallholding emanating from the EEA

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[19]This distinction between an exogenous increase in the citizenry's power, as opposed to an exogenous increase in the representation of new elites that need to maintain legitimacy with the citizenry, may seem subtle. We believe it is important because the power of the citizenry and the power of new elites may move independently of each other.

(Cust (1859), Crossman and Baden-Powell (1884)). Craig-James (2000, Table 4.10) shows that less than 1% of EEA sales ended up in smallholders' hands. To the extent that we see the franchise increasing after the EEA in section 4, we think of this as an outcome of the changing nature of the elite rather than the other way around. In particular, we think the expanding franchise was due primarily to less coercion at the poll booth than it was to an actual expansion of smallholds above 10 acres. An example of the coercion that may have relaxed after 1854 is poll taxes, which according to Holt (1991, p.254-256, 258, 274) were often used to discourage people to register to vote. As a result, Holt (1991, p.254) argues that in Jamaica, voter lists did not expand at all in the 1840s despite the fact that there was a "spectacular growth in the extent of smallholding after 1838" (Higman (2001)).

4   Macro Evidence

Core to our analysis is political competition between old and new elites. We want to test whether the *entry of new elites* perturbs the political equilibrium in the way our model predicts. Ideally, we would like to be able to assign to each representative a label of belonging to either old or new elites, and to measure directly the entry of new elites. Unfortunately, to measure entry, we need to accurately measure the stock of established elite families, and this means we need a long prior history. The *Blue Books*, our main data source, do not provide this because they only started reporting on assemblies around the mid-1830s. Because we cannot measure the entry of new elites anywhere else, we instead focus on *electoral turnover*, defined as the share of politicians who get replaced from one electoral cycle to the next. Fortunately, for Jamaica only, these data exist in a complete history of Jamaica's parliament Roby (1831). Electoral turnover is an imperfect proxy for the entry of new elites,[20] but with the data in Roby (1831) we can at least verify that it is a proxy. We construct as the stock of Jamaica's elites a list of all families that were represented in Jamaica's Assembly from its inception in 1660 until 1800, and then verify in the 14 elections that happened from 1800 to the introduction of Crown Rule in 1865 that there is a strong positive relationship between turnover and entry. Column 3 in Table 2 shows that this is the case.

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[20]On the one hand, some turnover *within* the elite is likely. On the other hand, an increase in political competition could take the form of a one-time permanent entry of competitors into politics, followed by limited subsequent electoral turnover.

We also relate electoral turnover to the *franchise*, i.e. the number of registered voters per capita. The data on the franchise is not well for our main purpose of testing whether the entry of new elites perturbs the political equilibrium in the way our model predicts. There are two reasons. One, the franchise is a more direct proxy for the empowerment of the citizenry which is related but not the same as the entry of new elites. Two, franchise data was only reported after 1854, which means we cannot test what effect the introduction of the EEA in 1854 had and it generally leaves us with time series that are too short to relate explain the timing of regime change at the colony level. What is nice, however, is that the franchise data, like the electoral turnover data, can be coded up at the sub-colony *parish* level, which increases the cross-sectional sample size to over 100, and gives us enough statistical power to test for a partial correlation between the franchise and electoral turnover at the parish level.

There is a two-way relationship between the empowerment of new elites and the citizenry. Increased entry by new elites – the focus of our model – will increase the franchise if new elites relax coercion at the voting booth and registrar's office. On the other hand, an exogenous increase in citizen voters will lead to increased entry by new elites. A correlation between the two provides may therefore be evidence of either channel. Testing for it is therefore a consistency check rather than conclusive evidence for our story. In correlating franchise and electoral turnover at the parish level, we can compare data within parishes over time or within a colony (and electoral cycle) across parishes. The following regression nests both comparisons:

$$\text{electoral turnover}_{ip,el-cycle} = \gamma \log(\text{reg. voters})_{ip,el-cycle} + \varphi_{ip} + \phi_{el-cycle} + \epsilon_{ipt}, \qquad (2)$$

where $\phi_{el-cycle}$ are colony-specific electoral-cycle fixed effects and φ_{ip} are fixed effects for parish p in colony i. Colony-specific electoral-cycle fixed effects are more conservative than colony fixed effects because they imply a comparison of parishes across a given colony only within the same electoral cycle. Columns 1 and 2 in Table 2 show that electoral turnover and the franchise are significantly positively correlated, whether we compare only within-parish over time in column 1 or within-parish over time *and* across parishes within a colony in column 2. Electoral turnover takes values between 0 and 1 so the estimates say that 10 percentage-points higher electoral turnover is associated with a 1.5% to 3% higher number of voters.

Table 2: Entry of New Elites, Electoral Turnover, and the Franchise

| Dependent:	log(reg. voters/population)		Number of political newcomers in one electoral cycle in Jamaica
	(1)	(2)	(3)
Elect.Turnover	0.258***	0.137**	28.770***
	(2.646)	(2.164)	(3.245)
Unit of observation	parish-year	parish-year	Jamaican elections 1800-1865
fixed effects:	parish	parish & el.cycle	
Observations	1,363	1,363	14
R^2	0.891	0.948	0.467

Notes: In columns 1 - 2, electoral turnover is related to the franchise (per capita registered voters) at the parish level, from the Blue Books. 10 %-points higher electoral turnover is associated with a 1.5% - 3% higher number of voters. Causality runs both ways, and this result is a consistency check rather than a test of our model. See discussion in text. Our ideal measure would be the *entry of new elites*. We have this for only Jamcaica from Roby (1831), which we coded up for this table. Column 3 tests whether electoral turnover is a good proxy for our ideal measure, the *entry of new elites*. In columns 1 - 2, s.e. are two-way clustered at the parish and the colony-electoral cycle level. In Column 3, s.e. are not clustered.

Having established that electoral turnover passes these basic tests as a proxy for the entry by new elites, we now ask whether changes in electoral turnover explain the timing of regime change, as our model suggests. Figure 1 plots the raw electoral turnover data leading up to constitutional changes. Noteworthy variation exists both in the cross-section and in the time-series. In the cross-section, consider the contrast between the Virgin Islands, the first switcher, and Barbados, the only colony that never switched. In Barbados, turnover was *below* 40 percent in every one of its elections. By contrast, in the Virgin Islands, turnover was *above* 40 percent in every one of its elections. In the time-series, electoral turnover was generally trending up before the regime switches. There are some instances, such as in Dominica and Grenada, where the regime switch followed a rapid increase, and some, such as in Dominica and Grenada, where the increase was more gradual.

Moving beyond the visual evidence in Figure 1, we turn to regressions to ask whether the instance and timing of the regime changes can be explained by electoral turnover. XXX

Because there is considerable variation in electoral turnover *both* across colonies and within colonies over time, we estimate the effect of electoral turnover on regime change both in a pooled cross section specification and in panel specifications. Remarkably, the estimated effect is practically identical in both specifications. A 10 % increase in electoral turnover raises the probability

Figure 1: Constitutional Change and Electoral Turnover
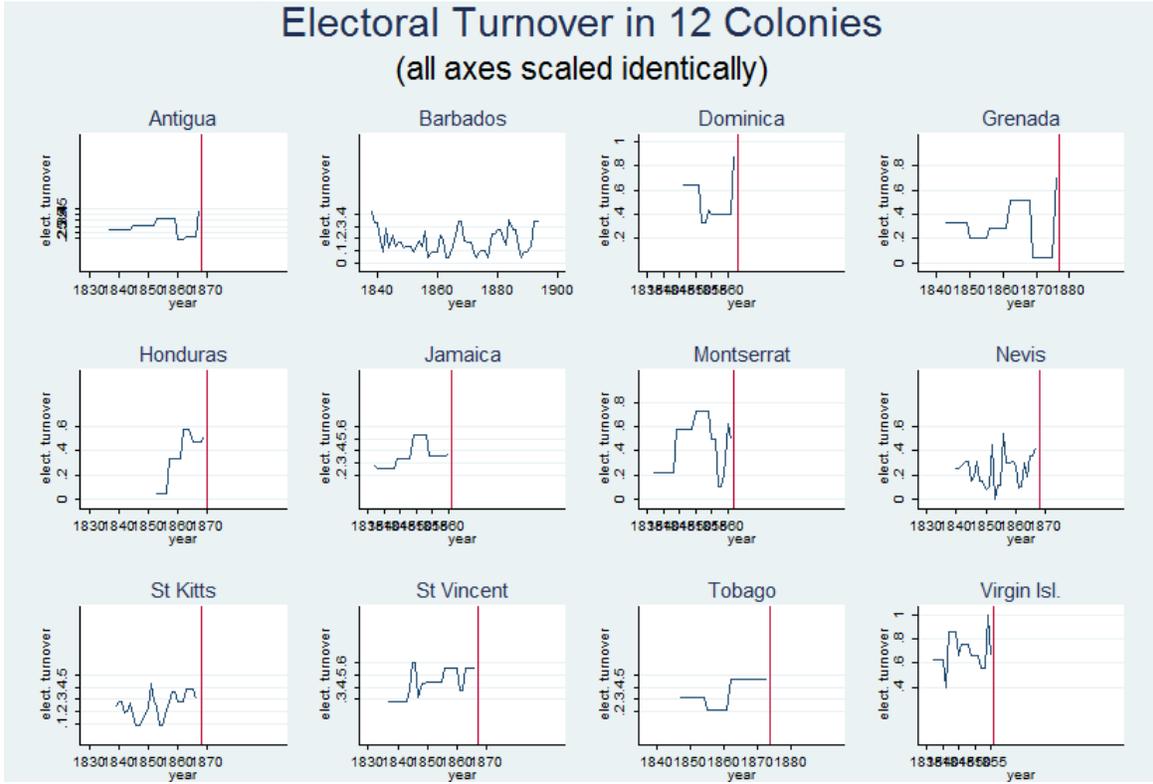
that a parliament voted to abolish itself by 2 % in a given year. To address the possibility that omitted factors that correlate with electoral turnover are driving the differential timing of regime switches, we control directly for a number of potential confounding drivers of regime change. We first control for the possibility that colonies learned from each others' actions by including the stock of colonies that had already abolished their parliaments. We then control for increased attractiveness of the regime change after the colonial administration put down the Indian Mutiny in 1857, which signalled a willingness to put down local peasant uprisings. Finally, we control flexibly for linear trends and year fixed effects. The results are robust to all these specifications.

To test the hypothesis that regime changes were a defensive move by elites to try and protect their status, we regress

$$\textbf{Regime Switch}_{it} = \beta \text{political competition}_{it} + \phi_i + \phi_t + \epsilon_{it}, \tag{3}$$

where the dependent **Regime Switch**$_{it}$ takes value 1 in the year when the switch occurs and value

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Table 3: Regime-Change and Electoral Turnover

Panel A:	Does Electoral Turnover Explain Regime Change?				
	(1)	(2)	(3)	(4)	(5)
Electoral Turnover	0.189***	0.215***	0.221***	0.210***	0.202***
	(3.397)	(4.223)	(3.940)	(4.580)	(4.316)
R^2	0.038	0.073	0.074	0.078	0.048
Panel B:	**Does Electoral Turnover Explain Regime Change, with Colony Fixed Effects?**				
Electoral Turnover	0.277***	0.229**	0.237**	0.241**	0.220**
	(3.234)	(2.534)	(2.784)	(2.946)	(2.519)
R^2	0.051	0.089	0.094	0.088	0.267
Controls:		year	No.(Switched)	D(post-1857)	year-FE

Notes: This table reports on regressions of regime changes on electoral turnover in a panel. The data is organized as duration-data, i.e. each colony's time-series is a series of 0s ending in a single 1. Intuitively, the duration-setup is chosen because regime changes are "absorbing," i.e. there is no turning back once an Assembly was abolished. Mechanically, the duration-setup is necessary, because the regressor, electoral turnover, is not defined after the regime change. Panel A reports coefficients for OLS with different controls, Panel B also includes colony fixed effects, which wash out any differences in average electoral turnover in Figure 1. Overall, 10 percentage-point higher electoral turnover leads to a 2% (0.189*0.1) higher probability of abolishing parliament in a given year. N = 337 in all columns, all s.e. are clustered at the level of a colony-level.

0 in all years before then.[21] Political competition is measured by electoral turnover, ϕ_i are colony fixed effects, and ϕ_t measures a time-trend in several different ways across specifications. Because Figure 1 displayed *both* considerable cross-sectional and time-series variation in electoral competition, we separately report pooled cross-sectional results (without ϕ_i) in table 4, and fixed-effects results in table 5.

Panel A of table 3 reports the results of the pooled cross-sectional specification. Column 1 suggests that 10 percentage-points higher electoral turnover at the previous election is associated with about a 2 % (0.189*0.1) higher probability of abolishing elected parliament in a given year. In columns 2 to 5, we address the possibility that these results are biased by time-variant forces that drive the probability of regime change and correlate with political competition. In column 2, we simply include a common linear trend. In column 3, we control for a peer effect, with regime change in one colony triggering change in the neighboring colonies, by including the number of already transitioned colonies. Another possibility is that over time, switching to Crown rule became more attractive for other reasons. For example, the violent suppression of the Indian Mutiny of 1857 demonstrated to local colonial elites that the colonial administration could be

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[21]With duration data, the data ends in a single 1 for each colony that abolished its Assembly.

counted on to suppress local rebellions. (Burroughs (1999, p. 181)).[22] In column 4, we therefore control for a post-1857 indicator. Finally, in column 5, we include year fixed effects. The results appear overall robust to the inclusion of all of these controls.

Panel B of table 3 replicates these results with fixed effects, i.e., using identifying only off within-colony variation. The coefficient estimates are remarkably stable across the two panels.

All regressions in table 3 are clustered at the colony level. Ordinarily, when the number of clusters is as low as 12, standard clustering can underestimate the true standard errors. A wild bootstrap is the appropriate way to address this and wild-bootstrapped p-values can be considerably larger than the standard ones (Cameron and Miller (2013)). However, in the duration data setup here, which is naturally characterized by long series of 0s which end in a single 1, this turns out not to be the case. The p-values corresponding to the colony-clustered standard errors in column 5 of tables 4 and 5 are, respectively, 0.001 and 0.029. The p-values for the wild bootstrap for those same two regressions are both smaller; 0.000 and 0.016 respectively.[23]

Because we hypothesize a *causal* link from electoral turnover to the probability of regime change, we also explore sources of exogenous variation underlying the panel-variation in electoral turnover. The historical record suggests that the exogenous introduction of the Caribbean Encumbered Estate Act (EEA), which facilitated the sale of bankrupt plantation land, strongly increased political competition by increasing land transactions, and that it did so *differentially* depending on local conditions that determined plantations' profitability. Consistent with this, we find that the introduction of the EEA raised both electoral turnover and the probability of regime change, but that it did so significantly less where local conditions meant plantations were more profitable. Pushing the identifying assumptions a bit further by assuming that the introduction of the EEA, interacted with local conditions, influenced regime change *only* through its effect on electoral turnover, we also present instrumental variable (IV) estimates of the effect of electoral turnover on regime change. The IV estimates broadly confirm the baseline results, although they are larger, suggesting that when electoral turnover exogenously increased by 10 %, the probability

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[22]Since the Crown could impose abolition on the Caribbean colonies, it is reasonable to ask why it could not impose Crown rule. The historical record suggests it was simply not important enough and that the demonstrated willingness of Caribbean assemblies to bring the local political process to a halt made colonial administrators unwilling to force Crown rule onto the Caribbean colonies (Wrong (1923)).

[23]A p-value of 0.000 means that there was not a single bootstrap-draw for which the "wild t-statistic" exceeded the standard t-statistic reported in tables 4 and 5. (I used 1000 draws, but larger numbers of draws equally generated a p-value of 0.000.

that parliament voted to abolish itself was between 4 and 15 % larger in a given year.

To strengthen the claim of a causal link between electoral turnover and the probability of regime change, we next explore the underlying causes of the panel-variation in electoral turnover, that drives the results in table 3. This paper's argument is that the increase in political competition – measured by electoral turnover – was linked to freedmen being increasingly successful at getting their votes registered, and, further, that the degree to which political competition increased was determined by how easily freedmen could obtain the land needed to register their vote. Based on this causal chain, the evidence indicates that the introduction of the Caribbean Encumbered Estate Act (EEA) was an exogenous shock that increased political competition by increasing land transactions (Lowes (1994)).

The historical record further suggests the *differential* impact of the EEA on different islands as an underlying driver of the differential increase in electoral competition. Before the EEA was implemented across the Caribbean in 1854, many estates were already bankrupt because of increased labor costs imposed by abolition. However, until then, a bankrupt plantation's debt was inseparable from its owner's other assets. If an estate was worth 20,000 pounds but indebted to the amount of 30,000, its owner still had to cover the remainder after the estate's sale. Consequently, many estate owners held on to their bankrupt estates, and, while there was pervasive squatting by freedmen on abandoned plantations, this did not give the legal title required for registering a vote. The EEA resolved this bottleneck by clearing estates' owners of any remaining liabilities after selling encumbered estates.[24] However, this effect of the EEA varied by islands, its impact depending largely on the profitability of estates. Where plantations remained profitable after abolition, the EEA had little impact (Lowes (1994)). The key cross-sectional characteristic which determined plantations' profitability was the cost of labor, which in turn depended on freedmen's options outside of estate work. Where there was little land, there were limited outside options, labor remained cheap and estates profitable (Dippel et al. (2015)).[25] The importance of density is well-illustrated by the case of Barbados. Barbados was the only one of the 12 Caribbean plantation colonies that did not abolish its parliament, it had the lowest average electoral turnover of all the

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[24]Essentially the same legal arrangement as in those U.S. states that have "non-recourse" bankruptcy laws today.

[25]Dippel et al. (2015) study Caribbean labor markets. They provide a model of coercion in which plantation workers' outside options and plantations' profitability a jointly determined by underlying geographic factors, and they provide detailed historical accounts of the functioning of these labor markets and the Caribbean plantations.

Table 4: Exogenous Variation Underlying the Changes in Electoral Turnover and Political Regime

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Panel A:	The "Reduced Form": Did the EEA Cause Regime Change (but less where elites had more control)?									
D(EEA)	0.098***	0.062	0.080**	0.06	0.100**	0.108***	0.063	0.086*	0.063	0.141***
	(5.256)	(1.772)	(2.647)	(1.757)	(2.305)	(4.493)	(1.379)	(2.149)	(1.602)	(3.464)
D(EEA)*1836-density	-0.039***	-0.055***	-0.061***	-0.043***	-0.045**	-0.041**	-0.061***	-0.069***	-0.046**	-0.054*
	(-3.469)	(-5.631)	(-4.774)	(-3.474)	(-2.305)	(-2.604)	(-4.089)	(-3.716)	(-2.651)	(-2.052)
R^2	0.052	0.068	0.077	0.061	0.242	0.059	0.076	0.090	0.069	0.254
Panel B:	The "First Stage": Did the IEA Increase Electoral Turnover (but less where elites had more control)?									
D(EEA)	0.057	0.033	0.055	0.046	0.148*	0.047	0.006	0.039	0.009	0.278***
	(1.326)	(0.741)	(1.351)	(0.928)	(1.862)	(1.304)	(0.128)	(1.096)	(0.227)	(4.566)
D(EEA)*1836-density	-0.104***	-0.116***	-0.107***	-0.105***	-0.110***	-0.024	-0.061*	-0.044	-0.030	-0.056**
	(-6.988)	(-4.957)	(-4.535)	(-7.549)	(-5.840)	(-1.142)	(-2.129)	(-1.417)	(-1.323)	(-2.692)
R^2	0.113	0.119	0.114	0.114	0.214	0.488	0.512	0.498	0.496	0.618
Panel C:	IV estimates									
Electoral Turnover	0.376***	0.491***	0.570***	0.409***	0.408***	2.303	1.521**	2.079	2.062	1.443**
	(5.222)	(7.526)	(6.090)	(4.786)	(3.612)	(1.189)	(2.440)	(1.630)	(1.321)	(2.408)
Weak-Instr F-Test	11.74	6.664	4.392	11.06	12.02	1.304	4.533	2.009	1.750	7.248
Controls:		year	No.(Switched)	D(post-1857)	year-FE		year	No.(Switched)	D(post-1857)	year-FE
Colony Fixed Effects						Yes	Yes	Yes	Yes	Yes

Notes: This tables presents the results from the instrumental variable exercise, divided into a "reduced form" regression of regime change on the instruments (Panel A), the "first stage" regression of turnover on the instruments (Panel B), and the IV regression of regime change on instrumented turnover (Panel C). Although the coefficient on "D(EEA)" is reported as a matter of separate interest, only the interaction term "D(EEA)*1836-density" is treated as an excludable instrument in Panel C. The number of observations is 337 in all specifications. All s.e. are clustered at the colony level.

colonies, and it was more than twice as dense as any other Caribbean colony.

Motivated by this background, table 4 shows how the introduction of the EEA related to the timing and instance of the regime changes, as well as to electoral turnover, and how this relationship depended on density. Across columns, columns 1 – 5 are organized like table 3, incrementally introducing the same controls, while columns 6 – 10 do the same but further add colony fixed effects as in Panel B of table 3. In table 4, Panel A reports the effect of D(EEA) (time–varying) and "D(EEA) · 1836-density" (time-and-colony-varying) on the likelihood of regime change. Panel B reports the effect of D(EEA) and "D(EEA) · 1836-density" on electoral turnover. If one is willing to assume that D(EEA) and "D(EEA) · 1836-density" impacted regime change only through their effect on electoral turnover, then one can instrument electoral turnover with D(EEA) and "D(EEA) · 1836-density." A somewhat weaker assumption, and the one on which we report here, is that D(EEA), which is essentially a post-1854 break, may have correlated with other unobserv-

able factors influencing regime change, but that the interaction "D(EEA) · 1836-density" impacted regime change only through electoral turnover. (This implies D(EEA) is treated as a control variable and "D(EEA) · 1836-density" as the instrument.) Under this assumption, we also report IV results in Panel C of table 4.

Panel A shows that the introduction of the EEA was indeed associated with a higher probability of regime change, and especially so in islands that were less dense, i.e., where more land was freed up by the EEA. The results for D(EEA) are weakest in columns 4 and 9, which allows for a trend break after the Indian Mutiny. This is not surprising because columns 4 and 9 amount to a "horserace" between a post-1854 and a post-1857 indicator. Overall, more credence should be given to the interactions term "D(EEA) · 1836-density," which remains significant to all specifications. Panel B shows that the introduction of the EEA was also associated with higher electoral turnover, although these results are not very strong with colony fixed effects. The IV results in panel C also broadly confirm the previous results, although the results with colony fixed effects are again much weaker. While the IV results should be taken with a grain of salt because of the relatively strong assumptions needed to interpret them literally, it is worth noting that the IV results are about twice as large as those in table 3, suggesting that 10 percentage-points higher electoral turnover increased the likelihood of abolishing parliament by between 4 and 20 % in a given year. A plausible interpretation of these larger IV estimates is that the IV better isolates the part of electoral turnover that truly represents political competition.

Overall, the results in all three panels of table 4 are consistent with the logic of the paper's argument that increasing electoral turnover caused preemptive regime changes, and with the historical record which suggests that the rate at which electoral turnover increased depended at least in part on external factors like changing legal conditions and their interaction with islands' geography.

5 Micro Evidence

We use the observations in section 4 as a springboard into our core empirics, which are based on micro-evidence on the families that formed the political and economic elite:

1. Using a collection of 76 plantation surveys of the 14 colonies at different times between 1815–1891, laboriously assembled from 48 separate sources, we show that turnover in plantation

ownership increased dramatically after the 1854 passing of the EEA.

2. Combining the plantation data with the politician data, the paper further shows that (a) planters continued to completely dominate the assemblies in the early years after abolition, (b) that this dominance slowly declined thereafter, and (c) that the biggest change after 1854 was not a decline in the planters' representation in the assemblies, but in their identity, as long-established planter families disappeared.

3. Using a complete history of Jamaica's parliament from 1640–1836, the only instance where consistent data exists on assembly membership before 1836, we show that particularly the most established planter disappeared from Jamaican politics after 1854.

4. We provide a detailed comparison between politics in Jamaica and Barbados. These were economically the two most important islands. In addition, Barbados was the island where turnover in plantation ownership was lowest, and the only island that never abolished its parliament. We show that in both islands the voting network early on consisted of a single network, which largely voted in favor of planter issues. In Barbados this remained true after. In Jamaica by contrast, a second voting bloc emerged, which represented non-planter interests. In other words, the voting network in Jamaica became partisan, or characterized by 'homophily'

5. For only Jamaica, we also know the race and profession of all parliamentarians. We show that many of the colored new members of Jamaica's assembly – and all those colored members that were planters – voted consistently in the planter bloc against smallholder interest; i.e. it was economics and not race that determined voting behavior. Lastly, while the size of the planter faction declined only marginally after 1854, its voting coherence as a political bloc declined very markedly.

6 Discussion & Conclusion

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Online Appendix

to

"Elite Competition and the Iron Law of Oligarchy:
A Tale of 14 Islands"

Online Appendix A   Data Sources

Online Appendix A.1   The Blue Books

The main data source for this paper are the British *Colonial Blue Books*, annual statistical accounts that were sent to London from each individual colony to report on local conditions.[26] From 1836, the books' Councils and Assemblies section reported the names of all local politicians, with election dates and the parish they represented. Also from 1836, the Comparative Tables of Revenue and Expenditure reported detailed breakdowns of taxation and spending by category, though not by parish. From 1854, the books' Political Franchise section also reported the number of registered voters for the last election by parish.

Online Appendix A.2   Other Colonial Archive Data

For each former colony, The British National Archives maintain 6 data-series:

1. *Original correspondence*

2. *Entry Books*

3. *Acts*

4. *Sessional Papers*

5. *Gazettes*

6. *Miscellenea*

In addition, each colony has a "CO number". For Tobago for instance, the above corresponds to series CO 288/285 – CO 288/290. The Blue Books are part of the *Miscellenea* series, and indeed form the bulk of that series. For the voting data, we collected the *Minutes of Assembly* for each colony. These minutes are part of the *Sessional Papers*. In many cases, the minutes do not report actual voting data but in some – including for Barbados and Jamaica – they do.

Online Appendix A.3   Other Sources

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[26]For years before the 1890s, at most two copies exist of each *Blue Book*, one in the issuing colony's archives and one in the British National Archives, in London, where this data was hand-collected.

Online Appendix Figure 1: Guyana
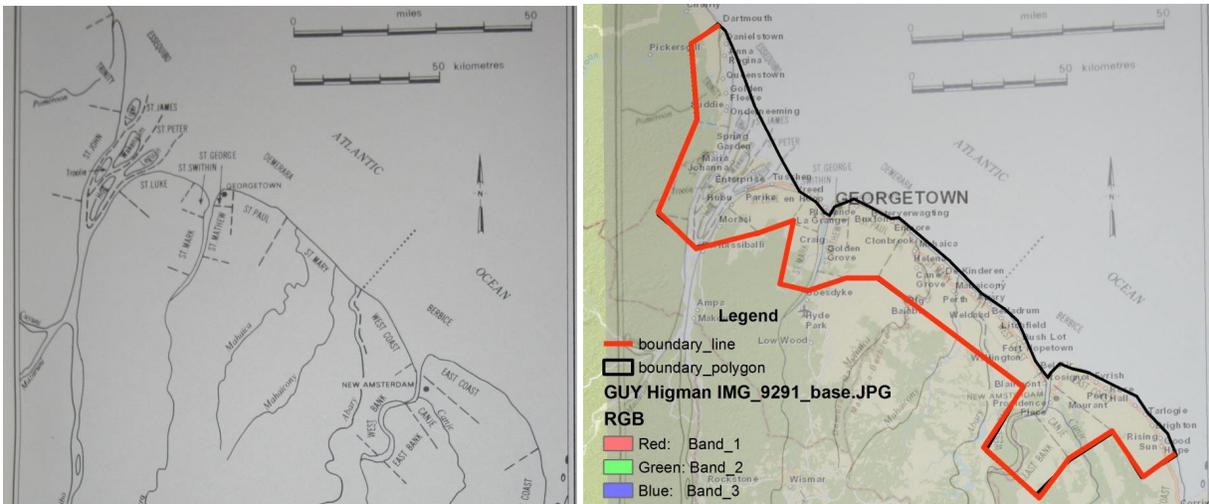
Notes: The left panel shows the historical boundaries of Guyana as dashed lines. The panel is from Higman (2000, figure 1.8). The right panel shows the results of geo-coding the map.

Online Appendix Figure 2: The Secular Decline in Sugar Prices (Figure 4 in Dippel et al. (2015))
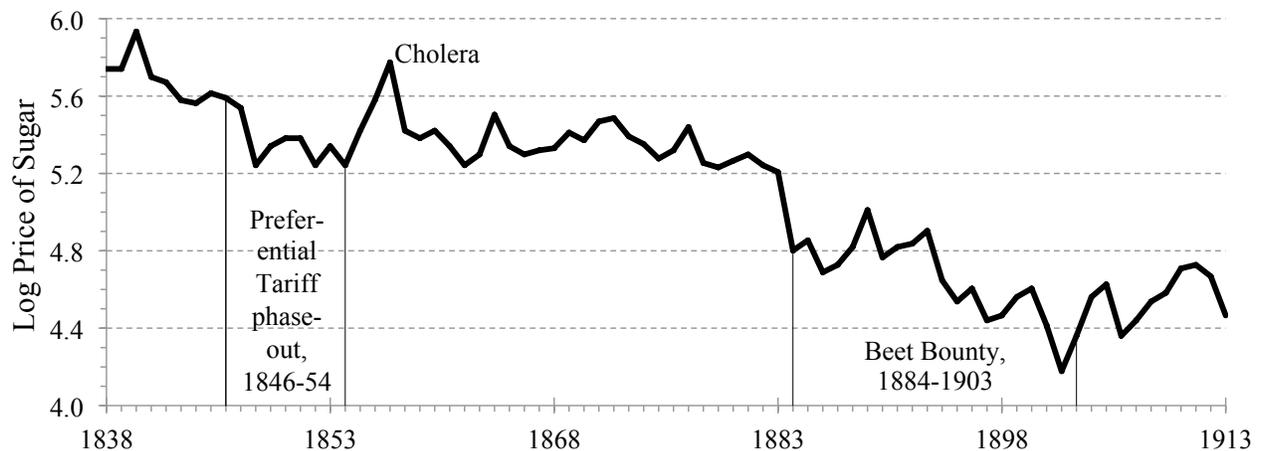
Notes: This figure plots the log of the London price of sugar. Two events stand out. As part of the repeal of the Corn Laws and the move to Free Trade, Britain's preferential tariff on West Indies sugar was phased out over the period 1846–54 (Curtin, 1954). Second, France and Germany subsidized domestic production of beet sugar during 1884–1903, which further drove down sugar prices.

Online Appendix Figure 3: World Sugar Production by Region and the British West Indies' Share (Figure 3 in Dippel et al. (2015))
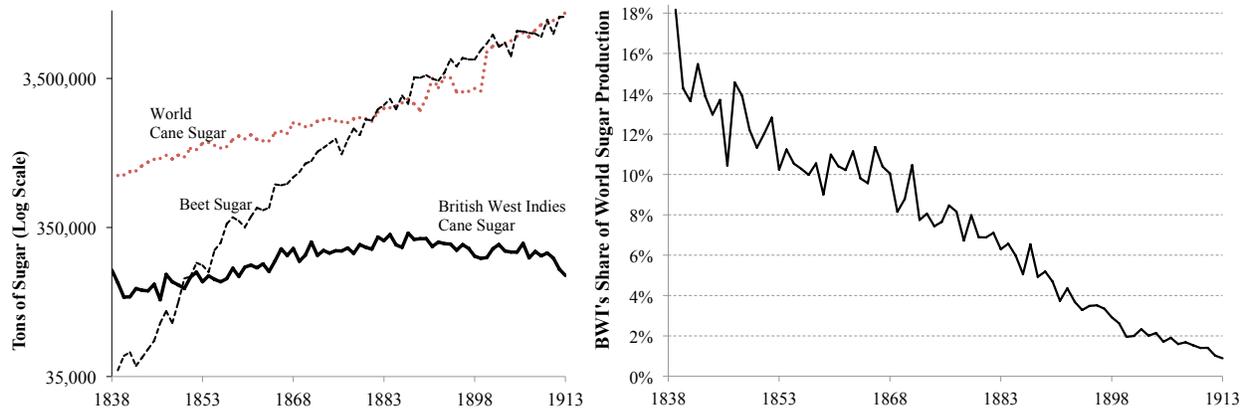
Notes: The left-hand panel is the log output of sugar (measured in tons) by source: (1) cane sugar grown in our sample of 14 British West Indies sugar colonies, (2) cane sugar grown worldwide, and (3) beet sugar. The right-hand panel is the British West Indies' share of world sugar output i.e., (1) divided by (2)+(3). Data are from Deere (1950).

Online Appendix Figure 4: The Share of Sugar in Total Exports and its Differential Decline (Figure 6 in Dippel et al. (2015))
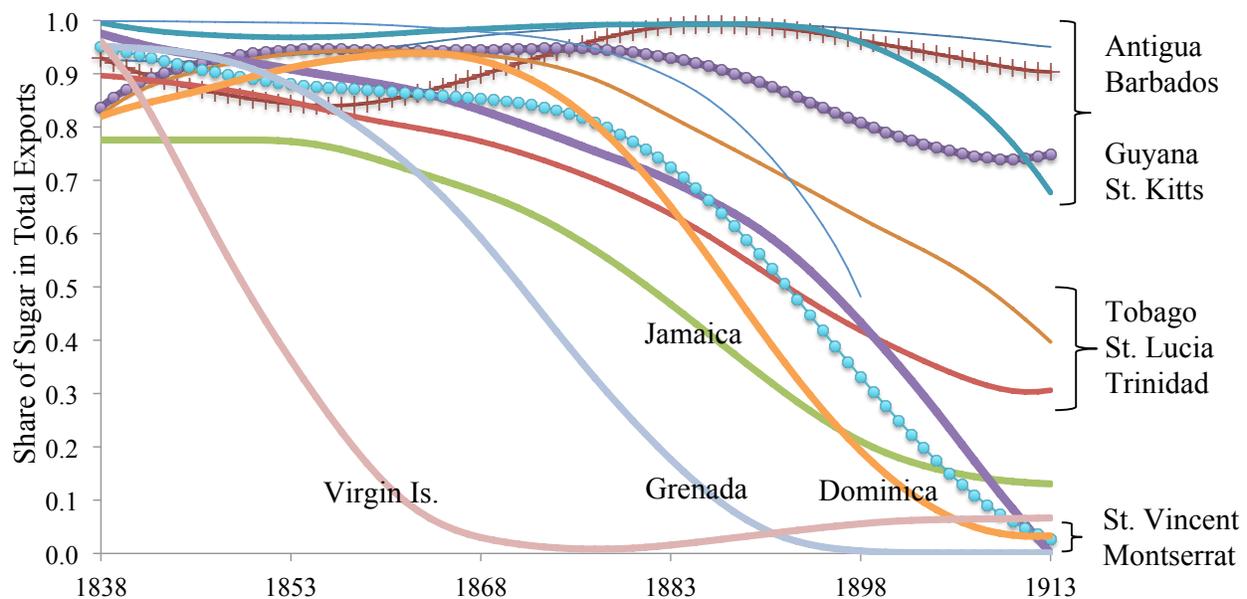
Notes: This figure reports the share of sugar in total exports. Nevis is not reported because it stayed between 0.95 and 1.00 throughout. Also, Nevis merged with larger St. Kitts in 1883 and Tobago merged with larger Trinidad in 1899. Each series is lowess smoothed. Data are from the *Colonial Blue Books*.

Online Appendix D   Additional Results

First, we show that freedmen had gained real political influence in the lead-up to the regime switches. Under the democratic regime, there was a clear electoral cycle in public spending favoring the rural poor. In election years, parliaments voted systematically more expenditure on education and on a basket of other public goods that freedmen favored but elites did not, relative to other years in the same electoral cycle.[27]

Second, we study the effects of abolishing the Assemblies by comparing public expenditures before and after the regime switch. Across specifications, spending on education and on other public goods declined with the dismantling of elected parliaments, both in specifications with only common time-trends (where the control is colonies that had not yet switched), and in specifications with colony-specific time trends (where the control is also each colony's own counterfactual trend had it not abolished its Assembly). I also investigate more closely the time-path of public expenditure, specifically around the years of regime change. There is some evidence that public-good provision actually increased from one year before to one year after the Assembly's abolition, perhaps because elites wanted to secure a smooth transition.

Third, I check directly whether elites were able to maintain insider access to the colonial administration after the regime switch. Two facts are consistent with this insider-access hypothesis: One, old political families continued to hold about 80 % of *appointed* legislative positions as late as 20 years after the regime switch, and two, within each colony, these old families came disproportionately from the plantation parishes.

Online Appendix D.1   Evidence of Political Pressure on Elites in the Lead-Up to the Regime Switch

If political competition from freedmen had real bite, then politicians should have had to cater to freedmen in election years, leading to electoral cycles (Besley and Case (1995)). The historical record suggests that the interests of the freedmen and the elite were conflicting on several dimensions, including taxation sources, land redistribution, and public spending (Holt (1991, ch. 7)). I focus on public spending because this is the only one of these dimensions on which there is data in the *Blue Books*. Two expenditure categories were consistently reported in the *Blue Books*, and evinced clear conflict between freedmen and planters: spending on education and expenditures related to health provision. Both were either irrelevant to the planters or could be provided privately (Lowes (1994)).[28] I therefore look for evidence of increased spending on education and health-provision in election years, i.e., when politicians had re-election concerns. Specifically, I estimate

$$\text{Policies}_{it} = \beta D(\text{election-year})_{it} + \gamma X_{it} + \phi_{el-cycle} + \epsilon_{it}, \qquad (4)$$

where $\phi_{el-cycle}$ is a fixed effect for an electoral cycle in a colony so that the effect of an election year is identified only relative to other years in the same electoral cycle.

Table 1 reports the results of this estimating specification (4). Columns 1 through 3 report on educational expenditure and columns 4 through 6 on expenditure for health provision. The first column includes only colony-electoral-cycle fixed effects, i.e., each electoral cycle is colony-specific. The second column also controls for more high-frequency variation in total expenditure.

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[27]Educational expenditure was the expenditure category that was most consistently available. The basket of other public goods contains all public goods associated with public health. On both dimensions, the interests of freedmen and planter elites diverged strongly.

[28]The children of the Caribbean great planters were almost always educated in England, and even their wives frequently lived there (Lowes (1994)).

Online Appendix Table 1: Electoral Cycles: Did Elites Cater to Freedmen at Election Time?

Dependent:	*log(educational expenditure)*			*log(sanitation & health expenditure)*		
	(1)	(2)	(3)	(4)	(5)	(6)
D(electoral year)	0.200**	0.184**	0.174**	0.224**	0.210**	0.180**
	(2.283)	(2.263)	(2.057)	(2.617)	(2.470)	(1.992)
log(total exp)		0.830**	0.675*		0.387*	0.288
		(2.447)	(1.864)		(1.802)	(1.301)
Fixed Effects			decade			decade
Observations	172	172	172	243	243	243

Notes: All specifications include colony-electoral-cycle fixed effects so that the election-year effect is identified relative to the rest of the electoral cycle. Reported regressions use only the data before the switch since there are no elections after. D(electoral year) equals 1 only in the year before the election. The number of observations is less than for the regressions relating institutional change to political competition, because the Tables of Revenue and Expenditure did not report fine categories in the early years.

The third column also adds decade fixed effects to further controls for any broad shifts in public spending. There is consistent evidence for the existence of an electoral cycle. Within an electoral cycle, politicians spent about 20 % more on both categories in election years. This evidence suggests that the freedmen were a political force to be reckoned with in the period after abolition and leading up to the regime changes. Because specification (4) uses within-electoral-cycle variation, as opposed to within-colony, standard errors should be clustered at the electoral-cycle level. And with 163 electoral cycles in the data, there should not be an issue with the asymptotics of clustering (Cameron and Miller (2013)). Indeed the p-values for wild-bootstrapped standard errors (clustered at the colony level), are 0.000 and 0.0033 in columns 2 and 5 respectively.[29] This is smaller than the p-values of 0.0266 and 0.0150, obtained with standard clustering at the electoral-cycle level.

Online Appendix D.2   The Consequences of Regime Change

Next, I investigate the consequences of abolishing parliament. Because of the endogeneity of the regime-switch, the time-window just around it is of separate interest here. For example, it is possible that elites strategically delayed utilizing the regime change in order to secure a smooth transition to the new regime. To pick up such transition-patterns in addition to the level effect of Crown Rule, I regress

$$\text{Policies}_{it} = \beta \textbf{Crown Rule}_{it} + \sum_{k=-3}^{2} \lambda_k \textbf{Regime-Switch}_{it+k} + \phi_t + \theta_i + \epsilon_{it}, \tag{5}$$

where Policies$_{it}$ are the two measures of expenditure, on education or health. The main coefficient of interest is on **Crown Rule**$_{it}$, which estimates the *permanent* effect of the regime switch; it turns from 0 to 1 on the year of the regime change, and stays at 1 afterward. $\sum_{k=-3}^{2} \lambda_k \textbf{Regime-Switch}_{it+k}$ is a set indicators for the 6 years around the year of the change.[30] Lastly, θ_i are colony fixed effects,

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[29] A p-value of 0.000 means that there was not a single draw in the bootstrap procedure, that generated a t-value above the one obtained with standard clustering.

[30] I show a window of six years because the only significant movement is in the four years around the change, and coefficients get monotonically less significant away from the regime switch.

and the counter-factual time-trend ϕ_t is modeled with either year fixed effects only or year fixed effects plus a colony-specific linear trend. Table 2 shows the results of estimating specification (5). The first two columns consider educational expenditure, the next two expenditure on health-provision. All columns include colony and year fixed effects and columns 2 and 4 add colony-specific linear trends. The permanent effect of abolishing parliament appears to have reduced educational expenditure by about 50 percent and reduced expenditure for health-related public goods by about 30 percent while the estimates in Table 6 suggest that it increased by about 20 percent in an election year.[31,32] Overall, the estimates clearly suggest that Crown Rule helped the elites. For the main regressor **Crown Rule**$_{it}$, table 7 also reports p-values for wild-bootstrapped standard errors in addition to those clustered by colony. Unlike in Table 1 (where the 163 electoral cycles seemed like a more reasonable cluster-dimension) and in tables 4 and 5 (where the data was set up as duration data), here the wild-bootstrapped p-values are bigger than the conventional ones, although the results do remain largely significant at conventional levels. Especially in columns 2 and 4, which include colony-specific time trends, the wild bootstrap makes little difference.

The coefficient-estimates λ_k are of separate interest from the main result. They display a very specific time-path of public-goods provision around the regime change. There was systematically higher expenditure on public goods from about two years before the change to about two years after. These results are more clear for education, but also come close to 10% significance for the other public good category. Educational expenditure, was between 50% and 90% higher in the three years around the regime switch. This at least strongly suggests that elites strategically delayed utilizing the regime change in their favor, in order to secure a smooth transition to the new regime.

Online Appendix D.3   Did Elites Maintain Insider Access

A possible explanation for the findings in Table 7 is that the switch to Crown rule shielded elites from popular pressure but in fact preserved their insider access and influence on the colonial administration's policies. Since elites' access would have depended on them actually staffing critical administrative positions, I look for direct evidence of this in the data of appointed legislators under Crown rule. I link all individuals into families based on last name, and calculate the share of appointed legislators whose families ever held elected office under the old Assembly system.[33] I pool all appointed legislators into a common appointed legislature defined by event time, i.e. year 1 pools the eleven legislatures after each one's switch to Crown rule. I then calculate the share of legislators whose families ever held elected office under the old Assembly system.[34]

Table 3 shows that this share is both very high and very stable over time. Twenty-one years

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[31]This makes sense because educational expenditure was arguably even less in the interest of elites. While there were some positive externalities from better health even if health was a private good to elites, education have have even had negative externalities. An obedient and stable workforce was key for the profitability of elites' plantations in the Caribbean (Dippel et al. (2015)), and higher education would have raised the outside options of plantation workers, a pattern observed in other agricultural labor markets as well (Bobonis and Morrow (2014)).

[32]Obviously, if expenditure on public goods shrank as a relative share of total expenditure, some other expenditures must have increased. I found some evidence that aggregate salaries for the civil administrators increased. This is consistent with anecdotal evidence that black leaders were co-opted by the planters (Honychurch (1995), Brizan (1984)). However, this evidence was weak because aggregate salaries were reported in inconsistent ways across colonies and over time.

[33]Under Crown rule, legislative chambers were appointed by the governor. Legislators' names and appointment dates continued to be reported in the *Blue Books*.

[34]A family is specific to a colony in this calculation, although some influential families owned plantations in several of the colonies (Taylor (2002)).

Online Appendix Table 2: The Consequences of Regime Change

Dependent:	*log(educational expenditure)*		*log(sanitation & health expenditure)*	
	(1)	(2)	(3)	(4)
Crown Rule$_{it}$	-0.546**	-0.404**	-0.353**	-0.379**
	(-2.877)	(-2.241)	(-2.260)	(-2.221)
p-val [cluster(colony)]	[0.045]	[0.048]	[0.015]	[0.046]
p-val [wild bootstrap]	[0.084]	[0.064]	[0.104]	[0.046]
regime-switch$_{it-3}$	-0.104	-0.036	-0.139	-0.203
	(1.352)	(0.371)	(0.693)	(1.043)
regime-switch$_{it-2}$	0.241*	0.277	0.185	0.101
	(1.931)	(1.651)	(0.955)	(0.530)
regime-switch$_{it-1}$	0.560***	0.582**	0.248	0.214
	(3.733)	(2.712)	(1.367)	(0.993)
regime-switch$_{it}$	0.371	0.566*	0.416	0.39
	(1.223)	(1.974)	(1.783)	(1.577)
regime-switch$_{it+1}$	0.825**	0.916**	0.291	0.206
	(3.045)	(2.816)	(1.451)	(0.988)
regime-switch$_{it+2}$	0.328	0.332	-0.063	-0.124
	(1.587)	(1.748)	(0.602)	(1.172)
colony-specific linear trend:		Y		Y
Observations	494	494	509	509
R^2	0.942	0.951	0.921	0.934

Notes: All regressions control for colony-fixed effects, year fixed effects and a log(total expenditure). The main regressor Crown Rule$_{it}$ turns to 1 the year of the regime switch and stays at 1 after that; it estimates the one-time level effect of the regime change. Each of the six regime-switch indicators turns to 1 only in a single year (e.g., regime-switch$_{it-3}$ turns to 1 only in the single year 3 years before the regime switch); they trace out how the dependent changes around the time of the regime change. The regime-switch indicators show that there was systematically higher expenditure on public goods just around the regime switch. Columns 1 and 3 have year fixed effects and columns 2 and 4 add colony-specific linear trends. Data for the Tables of Revenue and Expenditure runs from 1838 to 1900 for both variables. However, in early years, education expenditure was often not separately reported so that N is smaller for educational expenditure. All s.e. clustered at the colony-level.

Online Appendix Table 3: Measured Elite Persistence

Years Since Switch to Autocracy (Crown Rule):	3	6	9	12	18	21
Share Appointees from Elected Families:	87.04	88.33	91.23	91.04	90.32	86.67
Slave-Density of Appointee's Former Elective Parishes: (relative to equal representation)	3.19	2.66	2.55	2.56	2.64	2.53

Notes: This table reports two measures of persistence, in 3-year steps after the switch to Crown rule. Both measures are calculated by pooling all appointed legislators after the switch to Crown rule into one legislature and calculating shares so that all appointed legislators of all 11 colonies are represented in each year. "Appointees from Elected Families" are those whose family had held an assembly seat at any time before a colony's abolition of its assembly. To construct the second measure, I calculate for each parish its slave-density (number-slaves/area) in 1836, relative to the colony-average. This proxies for the dominance of the plantation-system in a parish, and is divided by the colony average to make it comparable across colonies. The table reports the average of this relative slave-density across all appointed legislatures.

after parliaments were abolished, almost 90 % of the appointed positions continued to be held by locals whose families had at one time held elected office in their colony. A shortcoming of this measure is that I cannot distinguish between elites' last names and the last names of politicians who represented freedmen. Therefore, while this share displays a high degree of persistence, it is not clear whether this persistence differentially favored the planter elites. To better gauge this, I calculate a measure of the degree to which appointed legislators represented the plantation economy. To do this, I first take the 1834 slave-density of each parish from Higman (1995), then average over all parishes that each family had represented in elected parliament to get a family's "implied" slave-density.[35] For each year since the regime change, I then average this family-specific measure over all appointed legislators across colonies. If this average is larger than 1, then plantation districts are systematically over-represented across colonies. Table 3 shows that this measure remains very stable at around 2.5 over the two decades after parliaments were abolished. This evidence suggests that the planters continued to wield disproportionate influence over policy making long after the regime changes.

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[35]I normalize this measure by a colony's total slave-density to create a measure that is comparable across colonies.