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ELITE IDENTITY AND POLITICAL ACCOUNTABILITY:  
A TALE OF TEN ISLANDS

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**ABSTRACT**

Emancipation of slaves in the 1830s transformed the political elites of the British-Caribbean plantation islands. New elites were more accountable to the citizenry. We develop a theory in which two factors limit and possibly reverse the effect of this on political outcomes, with legislators (i) ‘stepping up to pass extractive policies and/or (ii) weakening democratic institutions. The theory is supported by an historical analysis of ten Caribbean plantation islands, based on original archival data on legislator race, occupation and roll-call voting. Eventually, all assemblies that experienced a significant change in composition dissolved themselves and converted to British ‘Crown Rule’.

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“If we want things to stay as they are, they will have to change.” — [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

In 1836, slaves were emancipated throughout the British Empire. In the British Caribbean ‘sugar islands’, this had dramatic consequences for the islands’ elites and their interaction with the newly formed citizenry. At the time of Emancipation, the population of the islands was two to three percent white; eight percent of mixed race, a group that “had been freed earlier and possessed, in many cases, substantial property”; and almost ninety percent black, newly emancipated ([Taylor](#), 1885, p. 207).<sup>1</sup> After Emancipation, many whites left the islands. The gradually increasing number of enfranchised freed blacks largely supported the new mixed-race elite (who met the property qualifications for office) to represent them in the islands’ legislative assemblies. As a result, the new elite gained political power. Figure 1 shows that within 20–30 years of Emancipation, this new elite made up sizeable portions, in many cases even majorities, of the islands’ legislative assemblies.<sup>2</sup>

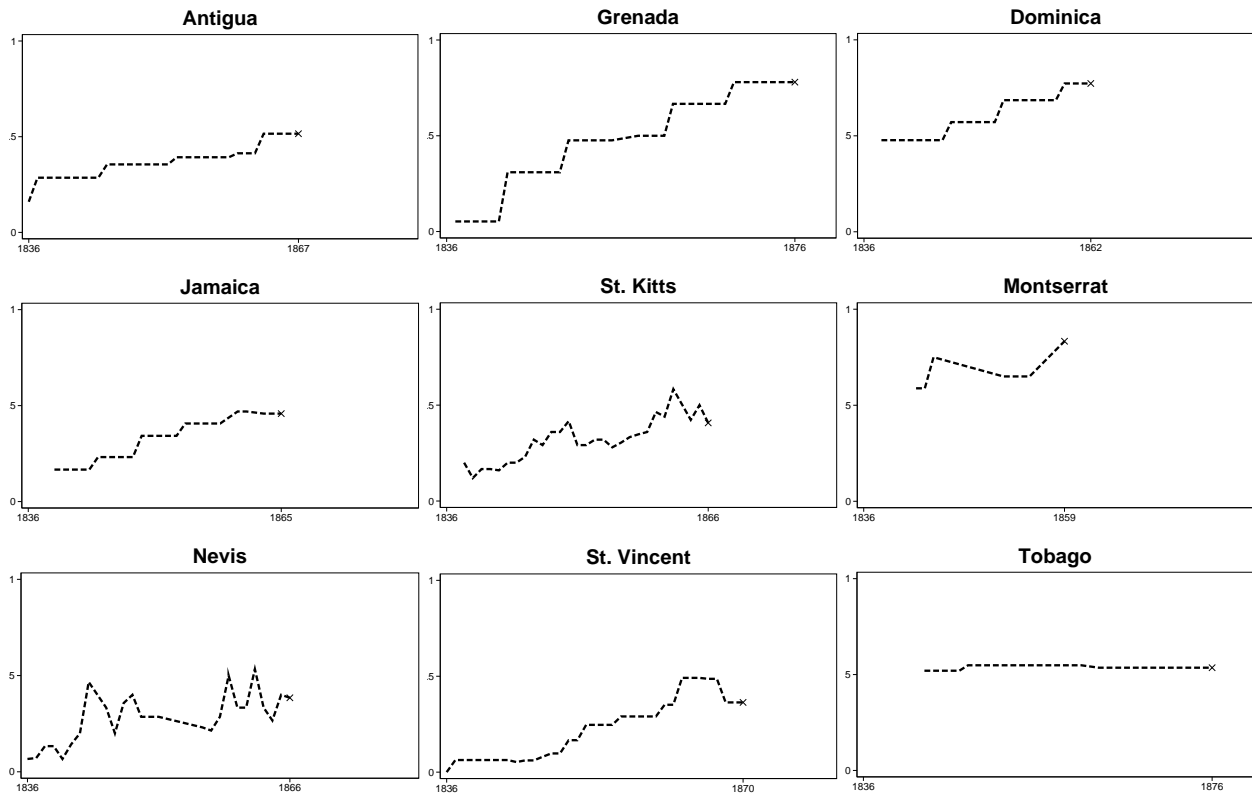
Despite the shifting identity of the political elite, political outcomes exhibited little change. New elites were expected by many to support policies that would benefit the new black citizenry, including expansion of education, health provision, and less regressive taxation. Yet, throughout this period, “each major inquiry [by English Parliament] into the British West Indies noted with amazement that nothing had been changed since the last report” ([Craton](#), 1988, p. 165). Between 1861 and 1877, legislators in all but one of the 10 islands dissolved their assemblies, and replaced them with legislative councils that were to be appointed by the British Crown. In Figure 1, the dissolution dates are the endpoints of the plots. The only island not to dissolve its assembly, Barbados, was also the only island not to experience significant change in the composition of the

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<sup>1</sup> This distinction between the new mixed-race elite and the black citizenry was rooted in the fact that non-white Caribbean elites were the descendants of white slave-owners and slave mistresses, subsequently freed and bequeathed property ([Lowes](#) 1995, p.37, [Patterson](#) 2013, p.16).

<sup>2</sup>We postpone a discussion of data sources until Section 4.

Figure 1: The New Elite's Share of Assembly Seats



Notes: The figure plots the evolution of the share of the new elite in the legislative assemblies of the nine Caribbean islands that eventually dissolved their assemblies. The end-point is marked in each island by its assembly's self-dissolution. All sub-figures are identically scaled: from 1836 to 1886 on the horizontal axis, and from 0 to 1 (denoting 100 percent) on the vertical axis. In Barbados, the only island not depicted, the share of new elites always stayed below fifteen percent throughout the nineteenth century, and Barbados was the only island that never dissolved its assembly (for reasons we will touch upon later).

political elite, with the old white elite holding over ninety percent of assembly seats.

How could the emancipation from slavery of over ninety percent of the population, a sizeable fraction of whom obtained the franchise, not lead to a more dramatic improvement in policies? The leading explanation for such continuity in political outcomes is the *iron law of oligarchy*, described by [Acemoglu and Robinson \(2006\)](#) as follows: "The reason for persistence is not persistence of the elites, but the persistence of incentives of whoever is in power to distort the system for their own benefit."<sup>3</sup> What we document is a more extreme version of the iron law. First, it is not hard to see how political outcomes might be independent from elite identity in non-democratic settings, e.g. when new elites hijack existing extractive institutions after military coups. It is

<sup>3</sup>[Michels \(1911\)](#) first coined the term to refer to the 'inevitable' emergence of a leadership class, or oligarchy, in organizations.

harder to see how this can occur in settings with electoral institutions. Second, in the Caribbean, elites were not replaced like for like, but rather new elites were more closely connected and thus accountable to the citizenry. Two mechanisms are identified that preserve an iron law of oligarchy in such settings.

We analyse repeating roll call voting over extractive policies in a legislature whose composition changes endogenously. Legislators differ in terms of (1) political accountability and (2) economic interests. Changes in the composition of the legislature, in terms of both political accountability and economic interests, do matter for political outcomes. Accountable types are less likely to vote for extractive policies, i.e. policies that benefit the elite at the expense of the citizenry.<sup>4</sup> Hence the likelihood that extractive policy is passed falls as the share of accountable legislators rises. But two factors limit and possibly reverse the effect of changes in political elite identity.

- (1) *Stepping up*. When accountable types are rare, it is mostly unaccountable types who vote for extractive policy because they do so at lower electoral cost. Accountable elites share an economic interest in extractive policy, but free ride when voting to avoid electoral punishment. Unaccountable types thus provide an elite ‘club good’. As the share of accountable types grows, however, they need to ‘step up’ and begin voting for the extractive policy for it to pass.

‘Stepping up’ is needed to maintain the legislative majority required to pass extractive policy, giving it the character of a threshold ‘club good’ (Schelling, 1978; Palfrey and Rosenthal, 1984).

However, there are limits to the extent to which ‘stepping up’ can compensate for a rising share of more accountable elites. When this share becomes large, ‘stepping up’ is not enough. In those cases, an extractive equilibrium that sustained only by a more drastic response.

- (2) *Institutional Change*. When new legislators face greater accountability, they may weaken electoral institutions to enact extractive policies at lower electoral cost.

That institutional change can be a means of preserving elite rents is well-known. What is new in our theory is that democratic institutions are not weakened by an old elite to shut out a new elite, but instead they are weakened by a coalition of old and new elites in response to the greater

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<sup>4</sup>Extractive policies are typically modelled simply as a regressive tax in the related literature (Meltzer and Richard, 1981; Acemoglu and Robinson, 2001). In our empirical application, we will have three types of extractive policies: (i) policies to depress agricultural wages, (ii) regressive land taxes, (iii) lowering of public-good provision.

accountability of the new elite. A modern-day example of such a phenomenon may be the constitutional reforms undertaken by the fledgling Mugabe regime in Zimbabwe in the late 1980s and early 1990s, which protected it from popular pressure for land reform.<sup>5</sup>

Our theory is applied to an historical analysis of ten British Caribbean sugar-plantation islands after the emancipation of slaves. The great strength of this application is that we can get an unusually sharp characterization of the social and economic identity of each elite member. Using novel archival data on Caribbean legislators' race and occupation, and their roll-call voting in the assemblies, we show that legislators from the new elite were more politically (electorally) accountable for voting for extractive policies, and that legislators' roll-call voting behaviour depended on their type and the overall composition of the legislature in the manner predicted by our theory.<sup>6</sup> As the share of white planters in the elite declined, individual members of the new elite indeed 'stepped up,' i.e. increased their support for extractive policies. Finally, we show that the timing of the dissolution of the assemblies is consistent with the political-accountability explanation suggested by our theory, but inconsistent with the conclusion of many Caribbean historians — who did not have access to our newly collected data on Caribbean elites' identities and their voting patterns — that the dissolution of the legislatures was as an attempt by white elites to prevent the new elite from taking control (Ashdown 1979, p.34, Lowes 1994, p.35).

Our theory and empirical analysis illustrate that democracy is not necessarily a self-enforcing system. Expansion of the franchise, as happened with a bang after Emancipation in the Caribbean, does not automatically produce an absorbing democratic state, but requires sufficient ongoing support among the elite. This support depends not only on conflict between the elite and the masses, but also crucially on inter-elite and intra-elite dynamics (North, Wallis, and Weingast, 2009). Moreover, it can be undermined by attempts to increase political accountability within the electoral system, without proper institutional safeguards of the electoral system.

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<sup>5</sup> Increasing pressure finally did force Mugabe into land reform in 2000.

<sup>6</sup> We compiled data on legislators' identity and on their political turnover for all ten islands. Voting data only exists for Barbados, Grenada, and Jamaica.

## 2 Existing Literature

By examining the effect of political elite identity on political outcomes, our paper is part of an expansion of the literature on the economics of identity into political economy (see [Akerlof and Kranton, 2000, 2010](#); [Shayo, 2009](#); [Bénabou and Tirole, 2011](#); [Akerlof, 2017](#)).<sup>7</sup> Major political transitions not only involve changes in formal institutions (e.g. [North and Weingast, 1989](#)), but also shifts in the composition of the political elite. Many countries have experienced a transition in power from elite groups with distinct social and economic identities (e.g. aristocrats, colonial elites) to elites that are more closely connected (and accountable) to the citizenry. Examples include the Reform Act in 1832 which made British Parliament more representative by removing rotten boroughs and the aristocrats elected by them. Latin America in the 18th century saw the emergence of ‘Creole elites’ who were tied to the land and had incentives that were fundamentally different from those of Spanish colonial administrators ([Anderson, 1983](#)). In much of the developing world, the end of colonialism saw the replacement of European elites with a mix of indigenous, mixed race, and transplanted elite groups. Despite the abundance of historical examples, there is relatively little work on the political consequences of changes in the identity composition of the elite.

Our focus is on how changes in the elite’s composition affect extractive policies through the elite’s changing *political accountability*. Political accountability is the degree to which elite members are punished for supporting extractive policies, through for example revolt ([Acemoglu and Robinson, 2000](#); [Aidt and Franck, 2015](#)), social sanctions ([Miguel and Gugerty, 2005](#)), and electoral punishment—voting against candidates who support extractive policies in subsequent elections. There is a large literature demonstrating that better institutions and policy outcomes are brought about by greater political accountability, due for example to shocks to the cost of collective action by citizens ([Acemoglu and Robinson, 2001](#); [Brückner and Ciccone, 2011](#)) and improvements in monitoring of elites ([Tabellini and Persson, 2000](#); [Besley and Prat, 2006](#); [Ferraz and Finan, 2008](#)). By contrast, elite identity has received relatively little attention as a determinant of political accountability, with [Corvalan, Querubin, and Vicente \(2016\)](#) being a notable exception. Yet, it is clearly important: Elites that are socially closer to the citizenry may face greater political accountability

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<sup>7</sup>The paper of course also speaks directly to the literature on Caribbean post-Emancipation political history. See for example [Rogers \(1970\)](#), [Heuman \(1981\)](#), [Brizan \(1984\)](#), [Craton \(1988\)](#), and [Holt \(1991\)](#).

because they have less control over voters, weaker military protection and poorer exit options than the aristocrats and colonial elites that came before them. In addition, social sanctions against elites may be more effective when social distance to the citizenry is low, as in [Miguel and Gugerty \(2005\)](#), and citizens may feel greater betrayal by leaders from their own group, as in [Di Tella and Rotemberg \(2016\)](#).<sup>8</sup>

Like us, [Acemoglu and Robinson \(2000\)](#), [Lizzeri and Persico \(2004\)](#), and [Ashraf, Cinnirella, Galor, Gershman, and Hornung \(2017\)](#) decompose the elite into groups by economic interest. Similarly, [Mattozzi and Snowberg \(2015\)](#) analyse a model of legislative bargaining with rich and poor legislators. None of these papers focus on the social distance between the elite and the citizenry. On the other hand, [Shayo \(2009\)](#) and [Abramson and Shayo \(2017\)](#) examine the identity composition of the citizenry but not in relation to the elite. In modelling an elite member's type as having both a social (political accountability) and economic dimension, our approach is closest to that of [Bisin and Verdier \(2015\)](#) who model elite heterogeneity along economic and cultural dimensions. Their focus is not on the political accountability channel we study here, however. Surprisingly, we find that increasing the political accountability of individual elite members does not necessarily aggregate to greater accountability of the political system as a whole.

We identify two mechanisms that preserve the iron law even when legislators tend to be replaced by more accountable types. How these mechanisms are related to the broader political economy literature is now discussed. First, to our knowledge, we are the first to uncover the 'stepping up' mechanism. This behaviour makes it difficult to infer the political preferences of minority political factions. We have chosen a model that conforms closely to our motivating Caribbean example, but the logic of 'stepping up' is more general. For example, 'stepping up' could occur if a shrinking bloc of unaccountable elites uses side-payments to co-opt accountable elites, as in the literature on vote-buying in legislatures (e.g. [Groseclose and Snyder, 1996](#)).<sup>9</sup> Another possible approach could focus explicitly on coalition formation, where a stable ruling coalition may re-form to include accountable elites (in a manner different to the process we analyse), as in [Acemoglu,](#)

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<sup>8</sup> Elite composition can also affect extractive policies because of *ingroup bias*; i.e. elite members who are socially closer to the citizenry may support non-extractive policies because of altruistic in-group preferences and norms ([Shayo, 2009](#); [Bramoullé and Goyal, 2016](#)). We recognize the potential importance of in-group altruism, but it does not generate either of the two patterns we focus on, namely stepping up and institutional change.

<sup>9</sup>See also [Auriol and Platteau \(2017\)](#) on co-option by an autocrat of religious elites through side payments. A setup like that could also see accountable elites being co-opted to permanently change electoral institutions.



Egorov, and Sonin (2008).

Second, we add to the literature on institutional change. [Acemoglu and Robinson \(2008\)](#) present a model in which elites respond to a loss of de jure power by investing in de facto power, e.g. collective action. In our case, the direction of causality is reversed. We show that extractive policies may persist despite increasing de facto accountability if elites can alter de jure institutions to protect themselves. The dissolution of legislative institutions in the Caribbean sets an interesting counter-point to the more common empirical pattern whereby temporary increases in political accountability tend to strengthen, reinforce and lock in democratization ([Acemoglu and Robinson, 2000](#); [Brückner and Ciccone, 2011](#); [Aidt and Franck, 2015](#)). Our analysis also contrasts with the more commonly proposed reason for institutional erosion, whereby old elites weaken institutions in order to protect their rents against an emergent new elite. See for example, [Trefler and Puga \(2014\)](#) who show that in Medieval Venice incumbent elites eroded formal institutions in an attempt to shut out new elites. Unlike this line of work, we focus on the interplay between different elite groups, and circumstance under which old and new elites work together to weaken institutions.

Setting aside the precise mechanisms of persistence that we focus on, our paper also adds broadly to the existing literature arguing that the interplay of institutional change and persistence are critical to economic development. The seminal papers by [Engerman and Sokoloff \(1997\)](#) and [Acemoglu, Johnson, and Robinson \(2002\)](#) both emphasize that institutional change reversed the positions of the U.S. and the Caribbean in the world income distribution. Implicit in both papers was a contrast between the *persistence* of extractive institutions in the Caribbean and the *change* towards more inclusive institutions in the U.S., but neither paper discussed Caribbean institutions in any detail. Even the comparative study of specifically electoral institutions in [Engerman and Sokoloff \(2005\)](#) does not provide any detail on the Caribbean. Our paper enriches the broad arguments in this literature by filling in many details of institutional change in the Caribbean.

### 3 The Theory

To examine the effect of elite identity on political outcomes, we examine repeated roll-call voting in an  $n$  member legislature with a changing distribution of legislator types. Legislators are het-

erogenous along two dimensions: (1) economic interests and (2) political accountability. In the Caribbean, economic interests were determined by occupation (planter or merchant) and political accountability by race (old white elite and new elite), as we shall see.<sup>10</sup> We focus on electoral accountability because it is the most prevalent form of political accountability in the literature.<sup>11</sup> Our equilibrium construction is in Markov strategies, which are simple enough to be played by plausible human players.

### 3.1 Setup

Consider an infinite-horizon model with discrete time indexed by  $t = 0, 1, 2, \dots$ . Each period, society consists of a finite and possibly changing set of players  $M_t$ , drawn from a universal player set  $M$  which is countably infinite. Society is divided into an elite and a citizenry. The elite is denoted by  $E_t \subset M_t$  with typical member  $i$ .

Policy is determined by voting in a legislature composed of  $n > 2$  members.<sup>12</sup> The set of legislators in period  $t$  is denoted by  $N_t$ . Legislators are drawn from the elite:  $N_t \subset E_t$ .<sup>13</sup> While the size of the legislature  $n$  is fixed, its composition  $N_t$  changes over time.

**Voting and Policy:** Each period  $t$ , every  $i \in N_t$  votes either for extractive economic policy  $v_{it} = 1$  or against it  $v_{it} = 0$ . Denote the profile of voting choices in period  $t$  by  $v_t \equiv (v_{it})_{i \in N_t}$ . The policy implemented is determined by majority rule and denoted by  $x_t \in \{0, 1\}$ , where  $x = 1$  is the extractive policy. For example,  $x = 1$  could be a wage-depressing policy which increases economic rents to the elite. Without loss of generality, ties are broken in favour of the extractive policy.

**Types:** Elite members (hence legislators) differ in terms of (1) economic interests and (2) political accountability, as in the Caribbean context. Agent  $i$ 's economic interest is  $\omega_i \in \{h, \ell\}$ , where  $h$  types receive a greater economic rent from extractive policy. Agent  $i$ 's political account-

<sup>10</sup>Occupational choice and race may be correlated. For example, most large farmers in Zimbabwe were of British origin under Mugabe until the land reforms in 2000.

<sup>11</sup>We examined the threat of revolt as a source of political accountability in an earlier version of the paper (Carvalho and Dippel, 2016).

<sup>12</sup>This is a departure from citizen-candidate models in which a single decision maker is selected from the citizenry (Osborne and Slivinski, 1996; Besley and Coate, 1997). Models of legislative bargaining have more than one political decision maker (Buchanan and Tullock, 1962; Weingast, 1979), but their focus is on dividing a fixed budget among districts (Baron and Ferejohn, 1989), whereas we examine voting over a common, extractive policy.

<sup>13</sup>This matches the Caribbean context, but does not qualitatively change any of the results. Relatedly, Corvalan et al. (2016) develop a citizen-candidate model with wealth restrictions for office that are higher than the wealth restrictions needed to vote.

ability is denoted by  $\theta_i \in \{L, H\}$ , where  $L$  ( $H$ ) denotes low (high) political accountability, in a manner to be made precise below. A legislator's two-dimensional type is denoted by  $\Theta_i = (\theta_i, \omega_i)$ , which is fixed for all time. The space of individual types is denoted by  $\mathcal{T} \equiv \{L, H\} \times \{\ell, h\}$ . Let  $n_t(\Theta) \equiv \sum_{i \in N_t} \mathbb{I}(\Theta_i = \Theta)$  be the number of  $\Theta$  types in the legislature at time  $t$ . The distribution of legislator types at time  $t$  is

$$z_t \equiv (n_t(\Theta))_{\Theta \in \mathcal{T}}.$$

**Payoffs:** Legislators maximize the expected discounted sum of their payoffs over time. There are two (additively separable) components of stage-game payoffs. First, every elected legislator receives per-period political rents worth  $r$ , which could be salary, perquisites, and 'ego rents' from being in office. All others receive no political rents. Second, each elite member (elected and unelected) receives an economic rent worth  $\pi(x, \omega_i)$ , which depends on whether extractive policy is passed,  $x$ , and  $i$ 's economic type,  $\omega_i$ . To simplify expressions, we set  $\pi(0, \omega_i) = 0$  for  $\omega_i = \ell, h$ . When extractive policy is passed, we assume

$$\pi(1, h) > \pi(1, \ell) > 0. \tag{1}$$

That is, both types receive economic rents from extractive policy but  $h$  types profit more than  $\ell$  types. In [Online Appendix A.1](#), we describe an economy in which this ordering of economic rents holds.<sup>14</sup>

### 3.1.1 Political Turnover

The composition of the legislature changes both endogenously (through elections) and exogenously (e.g. through out-migration of old elites).

**Attrition:** With probability  $1 - \delta$ ,  $i \in N_t$  is exogenously and permanently removed from the elite (and legislature) in period  $t + 1$ , earning a payoff of zero thenceforth. In this case,  $i$  is replaced in  $N_{t+1}$  with a player drawn uniformly at random from  $E_{t+1}$ . We refer to  $1 - \delta$  as the *attrition rate*, where  $\delta \in (0, 1)$  will serve as each player's discount factor.

**Elections:** With probability  $\delta$ ,  $i$  is not exogenously removed, and his likelihood of re-election

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<sup>14</sup>Another mechanism shaping economic rents, which we do not model here, is capital destruction by the citizenry. The citizenry might destroy capital to reduce rents from extraction and legislators might vote less frequently for extractive policy to reduce incentives to destroy capital.

depends on his roll-call voting choice. Though we do not explicitly model voting by the citizenry, re-election of legislators occurs in a manner consistent with retrospective voting by citizens (Barro, 1973; Ferejohn, 1986).<sup>15</sup> If legislator  $i$  votes against extractive policy in period  $t$  ( $v_{it} = 0$ ), he is re-elected with probability  $\bar{p} \in (0, 1]$ . If he votes for extractive policy in period  $t$  ( $v_{it} = 1$ ), his likelihood of re-election is a random variable  $P_{it}$ , which determines his electoral penalty for supporting extractive policy. The realization  $p_{it}$  is drawn from the distribution  $F_{\theta_i}$ , independently across agents and time.  $F_{\theta_i}$  is continuous and strictly increasing on  $[0, \bar{p}]$ , so that voting for extractive policy is almost always penalized ( $p_{it} < \bar{p}$ ). Naturally,  $H$  accountability types expect to pay a larger electoral penalty than  $L$  types when supporting extracting policy. Formally,  $F_L$  dominates  $F_H$  in the sense of first-order stochastic dominance:  $F_H(p) > F_L(p)$  for all  $p \in (0, \bar{p})$ .

In summary, a legislator's likelihood of re-election is

$$\delta [\mathbb{I}(v_{it} = 0)\bar{p} + \mathbb{I}(v_{it} = 1)P_{it}].$$

If a  $\Theta'$  type is replaced in period  $t$ , his successor is of type  $\Theta$  with probability  $q_t(\Theta|\Theta')$ . We restrict the replacement probabilities below so that when a legislator is unelected his successor is expected to have a weaker interest in extractive policy. Otherwise, voting out a legislator would make less sense. In addition, we assume there is no incumbency disadvantage: the likelihood that each  $i \notin N_t$  is newly elected to the legislature in  $t + 1$  is no greater than the likelihood that he is re-elected while in the legislature, denoted by  $\mathbb{E}[P_{it}] \equiv \int p_{it} dF_{\theta_i}$ .

Since legislators are selected from the elite  $E_t$ , changes in  $N_t$  are connected to changes in  $E_t$ . To guarantee enough examples of each type in  $E_t$  to fill all eligible legislative roles, we simply assume  $n_t(\Theta) \geq n$  for each  $\Theta \in \mathcal{T}$ . We need not otherwise restrict the evolution of  $E_t$ .

### 3.1.2 Timing

In each period  $t$ , voting choices are made after electoral penalties summarized by  $p_t$  are publicly observed.

At  $t = 0$ , the initial set of legislators  $N_1$  is determined. For all  $t \geq 1$ , the stage game unfolds as

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<sup>15</sup>The importance of retrospective voting in practice has been established since Fiorina (1978). Much of the literature focuses on the role of monitoring in political accountability (Besley and Burgess, 2002; Ferraz and Finan, 2008; Bobonis, Furtés, and Schwabe, 2016). Monitoring in our context is straightforward. An extractive policy can be unambiguously identified and support for extractive policy is observable from voting records.

follows:

1. The vector of electoral penalties  $p_t$  is publicly observed.
2. Each legislator  $i \in N_t$  votes for or against an extractive policy,  $v_{it} \in \{0, 1\}$ .
3. The policy  $x_t \in \{0, 1\}$  is implemented based on majority voting in the legislature.
4. Economic rents  $\pi(x_t, \omega_i)$  are received by all elite members  $i \in E_t$  and political rents  $r$  are received by all legislators  $i \in N_t$ .
5.  $N_{t+1}$  and  $E_{t+1}$  are determined by attrition and election, given voting behaviour  $v_t$  and electoral penalties  $p_t$ .

There is no discounting other than through attrition, producing a discount factor of  $\delta$ . The structure of the game is common knowledge.

### 3.2 Voting Equilibrium

We seek voting strategies that are robust and simple, yet still immune to one-shot deviations (i.e. constitute a subgame perfect equilibrium). They should be robust to incomplete information about the complex strategic environment (itself a simplification of the Caribbean context) and simple enough to be formulable by plausible human players. A player deciding whether to vote for extractive policy must compare the current gain in terms of economic rents to the long-term loss in economic and political rents from reducing his likelihood of re-election. This could require players to compute (among other things) expectations at each time  $T$  over all possible infinite-horizon trajectories of the distribution of legislator types  $\{z_t\}_{t=T}^{\infty}$ , where the probability distribution over trajectories is itself endogenously determined by voting choices  $\{v_t\}_{t=T}^{\infty}$ . We do not expect legislators to make such complex, forward-looking calculations.

Hence we focus on Markov voting strategies that do not require implausible levels of computational power, still constitute a subgame perfect equilibrium of the game (i.e. no profitable one-shot deviation by any player, no matter how sophisticated), and exhibit a useful form of monotonicity which links voting choices to the composition of the legislature.

Voting strategies are constructed as follows. Write  $\pi(1, \omega_i)$  simply as  $\pi_i$ . Define the following random variable as a function of the re-election probability  $P_{it}$ :

$$D_{it} = \pi_i - a_i(\pi_i + r), \quad (2)$$

where

$$a_i = \frac{\delta}{1 - \delta} \underbrace{(\bar{p} - P_{it})}_{\text{electoral penalty}}. \quad (3)$$

We refer to  $D_{it}$  and its realization  $d_{it}$  as  $i$ 's *interest in extractive policy* in period  $t$ . The first term is the economic rent to  $i$  in period  $t$  when extractive policy is passed. The second term is an upper bound on  $i$ 's expected loss of future economic and political rents from voting for extractive policy, given the electoral penalty  $\bar{p} - P_{it}$ . Thus,  $i$ 's interest in extractive policy is a lower bound on his current period net benefit from voting for extractive policy. This is useful because it is simple for players to compute and not very sensitive to details about the environment, especially those governing the evolution of legislator types over time. Notice that  $D_{it}$  is positive whenever the electoral penalty is sufficiently small.

We can now formally state the restriction on replacement probabilities mentioned above:

**Assumption 1**  $\mathbb{P}(D_{it} \geq 0) \geq \sum_{\Theta_j \in \mathcal{T}} q_t(\Theta_j | \Theta_i) \mathbb{P}(D_{jt} \geq 0)$ .

That is, when a legislator is unelected his successor has, in expectation, a weakly lower interest in extractive policy.

Denote the  $\lceil \frac{1}{2}n \rceil$ th largest values of  $D_{it}$  and  $d_{it}$  among  $i \in N_t$  by  $D_t^*$  and  $d_t^*$  respectively. Also define the rank of  $i$  as  $\tilde{R}_t(i) = 1 + \sum_{j \in N_t - \{i\}} \mathbb{1}(d_{it} \leq d_{jt})$ . The unique rank denoted by  $R_t$  is a bijective function ranking players as in  $\tilde{R}_t$  except with ties broken at random.

**Definition 1** A voting equilibrium is defined as follows. For each  $i \in N_t$  and  $t \geq 1$ :

- (i) If  $d_t^* \geq 0$ ,  $v_{it}^* = 1$  if only if  $R_t(i) \leq \lceil \frac{1}{2}n \rceil$ .
- (ii) If  $d_t^* < 0$ ,  $v_{it}^* = 0$ .

**Proposition 1** A voting equilibrium is a subgame perfect equilibrium of the game.

All proofs are in [Appendix A](#).

In a voting equilibrium, if at least a weak majority of legislators has a non-negative interest in extractive policy,  $x = 1$  passes.<sup>16</sup> The legislators voting for extractive policy are those with the largest interest in extractive policy. This is one sense in which voting choices are monotone. Notice that voting strategies are not conditioned directly on an individual's type  $\Theta_i$ . Rather, a legislator's type is probabilistically related to his voting behaviour through his interest in extractive policy. Thus, a voting equilibrium can be interpreted as a noisy kind of coalition formation through which different elite types cooperate to pass extractive policy, as we observe in the Caribbean context.<sup>17</sup> Still some types are more likely to participate in voting for extractive policy than others, in particular  $h$  types who expect greater economic rents from extractive policy and  $L$  types who expect a smaller electoral penalty.

It should be clear by now that rent extraction through roll-call voting is akin to provision of a threshold club good, the club here being the elite  $E_t$  and the club good being economic rents from extractive policy. A subset of the elite needs to contribute to the good (i.e., vote for extractive policy) for it to be provided. Only these contributors bear the cost of provision, in terms of an electoral penalty. For provision of the club good to be incentive compatible, the benefit must exceed the cost for the threshold number of club members. This is a simple but powerful insight which we exploit in the theoretical and empirical analysis.

### 3.3 Elite Composition and Political Outcomes

Voting choices depend on realized payoffs. The analyst, however, often observes only a noisy proxy for the precise payoffs, such as a legislator's identity  $\Theta_i$ . In our model, the randomness in the relationship between an agent's political type  $\theta_i$  and his 'electoral penalty' from voting for extractive policy can come from unobservable idiosyncratic factors and district-level conditions, such as electoral mobilization, information and discontent. In the Caribbean context, we can observe a legislator's race and occupation and want to know how voting for extractive policy varies

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<sup>16</sup>Note  $x = 1$  is passed by a minimum winning coalition. If we allow  $F$  to have a mass point at  $p_{it} = \bar{p}$  (i.e. no electoral penalty), as in a previous version, we get supermajorities voting for extractive policy without changing the other results.

<sup>17</sup>As [Frey \(1994, p. 340\)](#) suggests: "The Schumpeter-Downs model of democracy needs to be complemented by a model in which (between elections) [...] a coalition of all (established) legislators and parties stands against the voters and taxpayers [...] The members of parliament are a well-defined group jointly reaping rents. They have (with exceptions) spent their lives together in all kinds of meetings and sessions, committees and commissions."

with the racial and occupational composition of the legislature. Thus, we compute the expected likelihood that extractive policy is passed conditioning only on  $z_t$ , without any knowledge of  $p_t$  other than its distribution.

Across all elite members  $i \in N_t$ , we have  $n$  random variables  $(D_{it})_{i \in N_t}$ . Denote the  $\lceil \frac{1}{2}n \rceil$ th largest value by the random variable  $D_t^*$ . Under monotone voting, extractive policy is passed whenever its realization  $d_t^*$  is nonnegative. The *ex ante* likelihood that extractive policy is passed in state  $z_t$  (prior to the realization of  $p_t$ ) is

$$\mathbb{P}(x_t = 1 | z_t) = \mathbb{P}(D_t^* \geq 0 | z_t).$$

Observe that (2) is negative for some  $P_{it} \in [0, \bar{p}]$  if and only if

$$\frac{\pi_i}{\pi_i + r} < \frac{\delta}{1 - \delta} \bar{p}, \quad (4)$$

that is, if the economic rent from extractive policy  $\pi_i$  is sufficiently small relative to political rents from holding office  $r$ . If (4) is violated for all types  $\Theta \in \mathcal{T}$ , the likelihood that extractive policy is passed is invariant to elite composition:  $\mathbb{P}(D_t^* \geq 0 | z_t) = 1$  for all  $z_t$ . To focus on the more interesting case in which political outcomes depend on the distribution of legislator types, we henceforth impose:

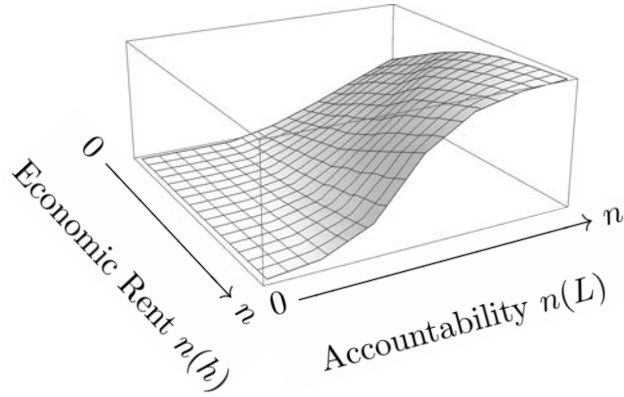
**Assumption 2** (4) holds for all types  $\Theta \in \mathcal{T}$ .

In [Online Appendix A.2](#), we formally state and prove that the likelihood extractive policy is passed is decreasing in the share of legislators with high political accountability ( $H$  types) and low economic rents ( $\ell$  types) ([Proposition A1](#)). This relationship between the composition of the elite and extractive policy is illustrated in [Figure 2](#).<sup>18</sup> When we start with a high proportion of  $(L, h)$  types, the likelihood of extractive policy being passed is high. As  $L$  accountability types are replaced by  $H$  types and  $h$  rent types are replaced by  $\ell$  types, the likelihood of extractive policy being passed falls.

<sup>18</sup> [Figure 2](#) is constructed as follows. Let  $n_h = n(L, h) + n(H, h)$  be the number of  $h$  types and  $n_H = n(H, h) + n(H, \ell)$  be the number of  $H$  types. Each point  $(n_h, n_H)$  can potentially be generated by a number of distributions  $z = (n(\Theta))_{\Theta \in \mathcal{T}}$ . Let  $S(n_h, n_H) = \{z | n(L, h) + n(H, h) = n_h \text{ and } n(H, h) + n(H, \ell) = n_H\}$ . For each  $s \in S(n_h, n_H)$ , we computed the probability that extractive policy is passed  $\mathbb{P}(D^* \geq 0 | s)$ . The functions depicted in the sub-figures are unweighted averages over all relevant combinations. That is, the function evaluated at  $(n_h, n_H)$  equals  $\frac{1}{|S(n_h, n_H)|} \sum_{s \in S(n_h, n_H)} \mathbb{P}(D^* \geq 0 | s)$ .



Figure 2: Probability of extractive policy being passed



Parameter values:  $\delta = 0.5$ ,  $\bar{p} = 1$ ,  $r = 6$ ,  $\pi(1, h) = 0.8$ ,  $\pi(1, \ell) = 0.2$ ,  $n = 6$ ,  $f_L(P_i) \sim \text{Beta}(3, 1)$ ,  $f_H(P_i) \sim \text{Beta}(1, 3)$ , where  $\text{Beta}(\alpha, \beta)$  is the pdf of the Beta distribution with parameters  $\alpha$  and  $\beta$ .

If we interpret  $(L, h)$  types as white planters in the Caribbean context, then political outcomes are improved by changes which make the political elite more representative of the citizenry. However, as we shall now show, this identity effect is muted (and possibly flipped) by two factors, one strategic and the other institutional.

### 3.4 Elite Composition and Voting Interactions: ‘Stepping Up’

How a legislator votes depends not only on his own type, but also on the distribution of types in the legislature  $z_t$ . We uncover a strategic effect that partially offsets the direct effect of changes to legislator identity described above. Passing extractive policy, as we have noted, is akin to provision of an elite club good. When types that provide the good at low cost exit, high cost types ‘step up’ and begin contributing to it. Here, a representative change in the composition of the legislature induces legislators with high political accountability and low economic rents to step up and vote more frequently for extractive policy.

**Proposition 2** *From state  $z$ , produce state  $z'$  by switching the type of one player  $j$ , such that  $n'(H, \omega) \geq$*

$n(H, \omega)$  for  $\omega = \ell, h$  and  $n'(\theta, \ell) \geq n(\theta, \ell)$  for  $\theta = L, H$ , with at least one inequality strict. For all  $i \neq j$ :

$$\mathbb{P}(x_t = 1 | z) - \mathbb{P}(x_t = 1 | z') < \mathbb{P}(v_{jt} = 1 | z) - \mathbb{P}(v_{jt} = 1 | z').$$

Raising  $j$ 's accountability or lowering his economic interest in extractive policy reduces the likelihood that  $j$  votes for extractive policy more than it reduces the likelihood that extractive policy is passed. The difference is made up by an increase in the frequency with which other members of the legislature  $i \neq j$  vote for extractive policy. We call this behaviour 'stepping up'. When  $H$  accountability types are rare, they tend to vote against extractive policy, free riding on the large number of  $L$  types who are likely to vote for it. An increase in the share of  $H$  types induces legislators who did not previously support the extractive policy to step up and vote for the policy in order to get it passed. The same applies to the economic dimension, given an increase in the share of  $\ell$  types. Thus one can underestimate the support for extractive policy by high accountability and low economic rent types when extrapolating from their voting behaviour when they are rare.

With this in hand, let us return to Figure 2. The graph can be understood as follows. Replace one  $L$  type with an  $H$  type. The direct effect is that the new member of the legislature votes for extractive policy at a lower rate. This is partially offset by stepping up by other legislators (Proposition 2)—the strategic effect. The two effects combine to produce the curvature of the graph, with the relative magnitude of the effects depending on the existing composition of the legislature.

### 3.5 Elite Composition and Institutions

At some stage, stepping up may not be enough to support extractive policy. Instead, legislators may pursue a more drastic and damaging option: weakening institutions to shield themselves from greater electoral accountability.

We focus on a particular kind of institutional change, namely the dissolution of the legislature. (Other institutional responses could be analysed in a similar manner.) We are particularly interested in how the composition of the legislature affects this choice.

Our motivation is evident in Figure 1 which depicts a rising share of legislators from the new

elite in nine out of ten British Caribbean plantation islands, culminating in the dissolution of the legislative assemblies of each of these islands. The tenth island, Barbados, experienced neither a significant rise in the share of new elite legislators nor the dissolution of its assembly. In the Caribbean, race maps to political accountability. To focus on this dimension, we simply assume equal economic rents  $\pi(1, h) = \pi(1, \ell)$ , so all that matters is a legislator's political accountability. That is, the number of  $H$  accountability types, denoted by  $n_t(H)$ , is sufficient to describe the distribution of types in the legislature.

Institutional change is incorporated as follows. For each period  $t \geq 1$ , introduce a date 0 at which legislators  $i \in N_t$  can vote to permanently dissolve the legislature and end elections at cost  $c$  to each legislator. Whether the legislature is dissolved is decided by majority rule. If dissolution occurs, extractive policy is permanently imposed and each  $i \in N_t$  receives political rents of  $r$  in all future periods in which he is not exogenously replaced. (Attrition still occurs with probability  $1 - \delta$ .) If not, the game proceeds as usual.

The cost  $c$  per legislator of dissolving the legislature can be (1) a reputational cost, (2) a direct payment to some outside entity (e.g. the payment required by the British crown to assume control), and/or (3) the cost of losing control over the island's politics. As we shall see in Section 4.5, Caribbean elites did not want to cede control over legislative institutions, and had historically resisted doing so.

**Proposition 3** *Let the initial state be  $n_1(H) = 0$ . The following constitutes a subgame perfect equilibrium of the game with institutional change.*

*There exist thresholds  $\underline{c}$  and  $\bar{c}$ ,  $\underline{c} < \bar{c}$ , such that:*

- (i) If  $c \leq \underline{c}$ , the legislature is dissolved immediately at  $t = 1$ .*
- (ii) If  $c > \bar{c}$ , the legislature is never dissolved.*
- (iii) If  $c \in (\underline{c}, \bar{c}]$ , there exists a value  $\bar{n} \in (0, n]$ , such that the legislature is dissolved as soon as the number of  $H$  accountability legislators  $n(H)$  reaches  $\bar{n}$ , which occurs in finite time  $t > 1$ .*

*Whenever the legislature is not dissolved, voting choices are given by the voting equilibrium in Proposition 1.*

The proposition has the game begin with all  $L$  accountability legislators (e.g. white planters). When institutions can be altered at low cost  $c \leq \underline{c}$ , the legislature is dissolved immediately. When institutions can only be altered at high cost  $c \geq \bar{c}$ , the legislature is never voluntarily dissolved by legislators. In this case, play proceeds according to the voting equilibrium in Proposition 1. In the intermediate range,  $c \in (\underline{c}, \bar{c}]$ , the decision to dissolve the legislature depends on the composition of the legislature. Not immediately, but eventually as the share of  $H$  accountable types grows, legislators vote to dissolve the legislature. Hence rising accountability of individual legislators *increases* the likelihood of extractive policy in ‘weakly institutionalized’ environments.

Caribbean historiography suggests that the cost to the political elites of giving up local control in the Caribbean islands fell in this intermediate range. We see in Figure 1 that electoral institutions were stable enough to deter white planters from immediately dissolving legislatures and forestalling change in the political elite after emancipation. But they were not stable enough to avoid dissolution once the share of new elite legislators became large.

The insight that elites may weaken institutions to preserve their rents is of course not new (see, for example, the many references in [Acemoglu and Robinson 2012](#) or the case study of Medieval Venice discussed earlier ([Trefler and Puga, 2014](#))). What is new is that this need not be driven by an old elite forestalling the rise of a new elite, but rather an old and new elite cooperating to preserve rents to both groups. Our theory explicates why the dissolution of legislatures in the Caribbean might have been supported by new elite legislators. The reason is that, as the share of (more accountable) new elite legislators rises, they have to step up to get extractive policy passed. They also face a larger electoral penalty when doing so. Hence new elite legislators may support dissolution as a less costly way of implementing extractive policy. We explore this prediction in Section 4.5.

## 4 The British Caribbean Sugar Islands After Emancipation

### 4.1 Historical Backdrop

We apply our theory of elite identity and politics to an historical analysis of ten British Caribbean sugar colonies, i.e. Antigua, Barbados, Jamaica, Montserrat, Nevis, St. Kitts, Dominica, Tobago, St. Vincent, and Grenada, where we can get an unusually complete picture of the identities of the local elites, and where the economic and social identities of each elite group are clearly identified by the islands' histories. Sugar was introduced into these islands around 1700, and with this emerged an elite that was dominated by a small white planter elite; white commoners left the islands for the American colonies, their place taken by an ever-expanding population of imported slaves (Taylor, 2002, ch. 11).<sup>19</sup> From around 1800 the tide turned against the Caribbean planters. Slavery, which was critical to Caribbean wealth, came under increasing attack from the rising Abolitionist movement in London (Ragatz, 1928, ch.10). In 1807, British parliament abolished the slave trade. Finally, in 1833, British parliament passed *An Act for the Abolition of Slavery* which ended slavery throughout the Empire in 1836. We study the islands in the decades that followed.

Next, we describe how the basic setup of the model in Section 3.1 maps into our data.

#### 4.1.1 Basic Features

**Legislators and the 'Assemblies':** One critical part of the model is that extractive policy is chosen through legislative voting. In the Caribbean, this occurred in the *legislative assemblies*, which had extensive legislative powers, including the power to set extractive policies. At the end of the 19th century, the assemblies had greater power vis-à-vis the colonial governor than the average British colony (Xu, 2018). The main reason for this was that the Caribbean colonies were considerably older than the average British colony, and had been formed with more decentralized institutions than later colonies. Green (1991, p. 68) writes that "in addition to their legislative functions, [the assemblies] had extensive executive powers. Colonial Acts assigned all important administrative tasks to special boards, or commissions, upon which members of the assembly

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<sup>19</sup> The first six (plus the Virgin Islands for which we have no data) were founded in the 1600s by British settler-farmers. The other four were annexed from France at the end of the Seven Years War in 1765, and were then resettled by sugar planters from the existing British Caribbean islands. The British annexed three more Caribbean colonies — Trinidad, St. Lucia, and Guyana — from Napoleon between 1797 and 1803, but these never had comparable legislatures.

enjoyed either exclusive or majority control". Similarly, [Rogers](#) writes that "in the West Indies, the executive was almost completely isolated from public finances, over which the assemblies exerted an extraordinary influence. Indeed, all representative bodies exercised the functions of three separate [British] agencies. As a lawmaking chamber, it imposed truces. In an executive role, it collected revenue, voted appropriations, expended monies, and, along with the upper house, administered public services. Lastly, acting as an audit board, the island assemblies checked their own expenditures" (1970, p. 77–79).

As in the model, the assemblymen were a subset of the broader elite whose changing composition we have just described. The assemblymen were drawn from the islands' elite through regular parish-level elections. The franchise itself was not very restrictive, requiring only 10 acres of land ownership in all the islands. It had traditionally been small, not because of tight restrictions such as property requirements, but simply because of the small number of free people.<sup>20</sup> The property (or income) requirements for holding office were very restrictive however. In this respect, the relationship between electorate and political class in the ten islands was thus very similar to that in the original 13 colonies and states of the United States in the 18th and early 19th century ([Corvalan et al., 2016](#)).

**Data on Legislators and Assemblies:** The *Records of the Colonial Office*, housed at *The National Archives* in London, maintain 6 data-series for each former colony: (i) *Original correspondence*, (ii) *Entry Books*, (iii) *Acts*, (iv) *Sessional Papers*, (v) *Gazettes*, and (vi) *Miscellanea*. The bulk of the *Miscellanea* series is made up of the *Colonial Blue Books*, annual statistical accounts that were sent to London from each individual colony to report on local conditions. For years before the 1890s, only (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. Starting from around 1836, sometimes earlier, sometimes later, the *Blue Books' Councils and Assemblies* section reported the names of all elected assemblymen, related election dates and the parishes they represented.

**The Social (Racial) Composition of the Islands' Elites:** Shortly after Emancipation, the *Colonial Office* drew a distinction between 'whites, mostly landed', people of mixed race "who had been freed earlier and possessed, in many cases, substantial property", and "blacks, recently

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<sup>20</sup> Before Emancipation 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).

emancipated” (Taylor, 1885, p. 207). The reader may refer back to footnote 1 for the distinction between the new (mixed-race) elite and the black citizenry in Caribbean historiography.<sup>21</sup> Emancipation was followed by steady exodus of whites returning to England. As new elite members filled the void left by the old white elites, the social composition of the Caribbean elite became far more mixed.<sup>22</sup>

**The Economic Composition of the Islands’ Elites:** While planters were still predominantly British in the early years after Emancipation, this too changed. Green (1991, p. 199) writes that “the planter oligarchy was, over time, no longer almost exclusively white;” Brizan (1984, p.201–202) writes that “the vacuum created by the exodus of white planters was now being filled by the rich [men of color];” and Craig-James (2000, p.200, 296) writes that “men of color [...] acquired the plantation property,” and by the 1870s in Tobago they “owned or operated 32 of the 73 estates [in Tobago]”. Craig-James recounts the story of Brutus Murray, a man of colour who was born a slave in Tobago in 1797, appeared in the public records in 1842 as a sharecropper at Orange Valley Estate, then in 1852 as a manager of Belle Garden Estate, in 1862 as a part-owner of Pembroke Estate, and finally in 1870 as the exclusive owner of Pembroke and Cardiff Estates (Craig-James, 2000, p.165). Stories like Murray’s abound in the detailed island histories of Craig-James (2000), Lowes (1994), Holt (1991) and others. Nonetheless, the new elite segment was economically “far more heterogeneous than the class it was gradually displacing [...] consisting of merchants, successful estate owners, members of the professions, and an expanding managerial sector” (Meditz and Hanratty, 1987, p.31).

**Measuring Elite Types:** As in our model, we assign each elite member  $i$  in our data a two-dimensional type denoted by  $\Theta_i = (\theta_i, \omega_i)$ , consisting of a political accountability type  $\theta_i \in \{L, H\}$ , where  $L$  ( $H$ ) denotes low (high), and an economic interest type  $\omega_i \in \{h, \ell\}$ , where  $h$  ( $\ell$ ) indicates a higher (lower) direct benefit from extractive policy. In the post-Emancipation British Caribbean context, these labels had very specific meanings that we can observe in the data. Political accountability to the citizenry was determined by the most salient dimension of elite social identity,

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<sup>21</sup> The non-White non-British elites were by and large mixed-race, but beyond this fact, the distinction between the new elite and black citizenry plays no special role in either the theory or our historical case study. We refer the reader to the excellent social histories on this topic in Carmichael (1833), Smith (1953) and Cox (1984).

<sup>22</sup> Craig-James (2000, p. 201) emphasizes that there “was little intermarriage” between whites and the new elite, so that the latter “must be seen as a distinct segment of the dominant class.”

namely their race. An extensive collection of individual islands' social histories helped us establish each legislator's race, our measure of  $\theta_i \in \{L, H\}$ . To avoid clogging the paper's references with citations of island-specific source materials, the sources are listed in [Online Appendix B](#). These historical accounts are often focused on the issue of race to an extent that would seem strange in other socio-historical contexts. For example, [Heuman \(1981\)](#) and [Holt \(1991\)](#) make explicit mention of every single non-white legislator who ever sat in Jamaica's Assembly, and contrast the new elite's incentives very explicitly with those of the old white elite. The Caribbean's mono-crop plantation agriculture also meant economic interest  $\omega_i \in \{h, \ell\}$  can be meaningfully captured by a simple binary classification of elites into planters and non-planters ('merchants'). For the traditional British planter elites, *Slave Ownership Registries* from the pre-Emancipation period and the *Emancipation Compensation Tables* issued in 1835 listed all families who had owned plantations. For the planters emerging from the new elite in the post-Emancipation period, we found 61 distinct island-specific plantation surveys that help us further validate the economic identity of legislators after Emancipation, which was especially useful to establish whether a new elite member was a plantation owner. We coded all elites who were not planters as 'merchant', a group that de facto included also lawyers and professionals. The key point to us is that plantation owners had a more pronounced interest in a wage-reducing policy than any other elite group.<sup>23</sup> British planters were  $(L, h)$  types, new elite non-planters (merchants) were  $(H, \ell)$  types, and new elite planters  $(H, h)$  types. [Online Appendix B](#) describes all data sources and the details of the coding.

**Drawing Legislators from the Elite:** Before Emancipation, legislators were drawn from an elite that was entirely British, and whose economic interest was entirely in the plantation economy. According to [Green \(1991, pp.73\)](#), only "a few merchants, lawyers, and medical practitioners secured seats in the Jamaica Assembly before 1840. In 1837, twenty-two of twenty-five Antigua assemblymen were planters." As the broader elite became more economically and socially mixed after emancipation, as described above, so did the islands' assemblies. The main reason for this was that a substantial number of freed slaves obtained the franchise. Franchise requirements remained at ten acres after Emancipation, in large part "because of pressures from the Colonial Office, [which meant that] a comfortable translation of pre-emancipation legal distinctions into

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<sup>23</sup> There were also some  $(L, \ell)$  types in the assemblies, i.e. British but not planters. They were few and often British colonial administrators, meaning their incentives were likely different to the payoffs in our model. To maintain our focus on political accountability, we group these with the British planters, which does not affect any of empirical results.



distinctions of skin color was not possible” (Lowes, 1994, ch. 5).<sup>24</sup> The “growth in the extent of smallholding after 1838” thus led to a significant expansion of the franchise to the black citizenry (Higman, 2001), although we unfortunately do not have good data on the franchise. The vote of the black citizenry went largely to the new elite (Rogers, 1970, p. 187).<sup>25</sup> As the assemblies became racially more mixed, they also became more mixed in economic interests: Holt (1991, p. 221) writes that between Emancipation and its self-dissolution “more than a third of the brown representatives [in Jamaica’s assembly] were lawyers. Several others were merchants, editors, or public employees, not dependent on agriculture. Unlike the planters, they did not identify the interests of the island exclusively with the success of its plantations.”

**Measuring Voting Behavior:** Colonies recorded the proceedings of their legislative and executive councils in the *Blue Books’ Sessional Papers*. If the legislative body was locally elected, as in the case of our ten islands, these proceedings were titled the *Assembly Minutes*. We photographed the *Assembly Minutes* of each of the ten islands. Votes were unfortunately often not recorded in practice. Only Barbados, Dominica, Grenada, Jamaica, Montserrat and Tobago ever reported any roll-call data in the *Minutes*. In Dominica, Montserrat and Tobago this data was exceedingly scattered, and very few bills had any roll-call information attached to them at all. In Barbados and Grenada, roll-call information was more regularly attached to the bills, but these revealed very little information on the content of each proposal. The final conclusion was that we had enough roll-call information in Barbados and Grenada to study the network of voting blocs in these islands (depicted, e.g. in Figure 3), but that we could not know whether individuals’ supported extractive bills specifically. This we could only do in Jamaica, because Jamaica kept a separate and proper *Hansard*, the so-called *Jamaica Vote Book* which was unrelated to the *Assembly Minutes*.<sup>26</sup> Jamaica also had the longest historical records of its assemblymen, going back to its assembly’s founding in 1664 (Roby, 1831).

Postponing a discussion of the construction of the voting network to the paragraph preceding

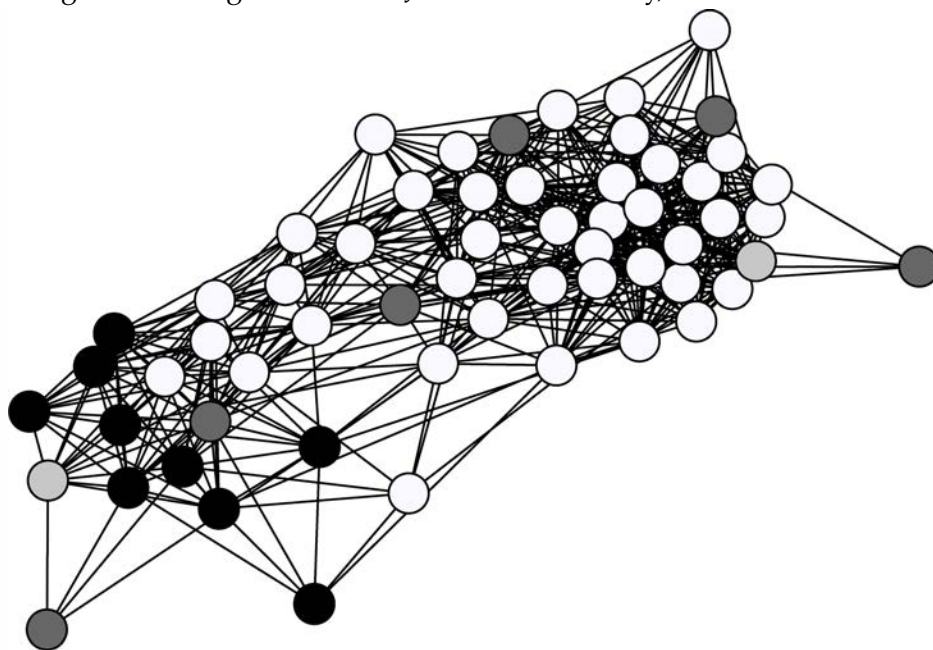
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<sup>24</sup> The threat of brute force was not viable for whites in the Caribbean, given their tiny numbers.

<sup>25</sup> Black (as opposed to mixed-race) legislators were exceedingly rare. In his investigation of Jamaican post-Emancipation politics, Holt (1991) finds that there were a total of two black assemblymen between 1836–1865, compared to over 30 mixed-race ones.

<sup>26</sup> The *Jamaica Vote Book* had before us already been used in parts by Holt (1991). We owe a debt to Tom Holt who had saved the *Jamaica Vote Book* on a magnetic tape recording when he was working on his 1992 book, and generously sent this tape recording to us. Unfortunately, it had not withstood the test of time so that we had to scan and digitize the hardcopies of the books anew.

Figure 3: Voting Network in Jamaica’s Assembly, 1844–1848 Session



*Notes:* White nodes are ‘old elite planters’, the dark-grey nodes are the ‘new elite planters’, black nodes are ‘new elite merchants’. The two light-grey nodes on the far-left and far-right are ‘old elite merchants’ ( $\Theta_i = (L, \ell)$ ). The old elite planters and the new elite merchants appear to be separate blocs because they tended to agree among themselves and disagree with each other.

equation (7), Figure 3 displays the extent to which the assemblies after Emancipation were made up of a racially and economically mixed elite. The figure depicts the voting network (over all proposals) for the assemblymen in Jamaica’s 1844–1848 legislative session. White nodes are white planters ( $\Theta_i = (L, h)$ ), the dark-grey nodes are new elite planters ( $\Theta_i = (H, h)$ ), and black nodes are new elite merchants ( $\Theta_i = (H, \ell)$ ). In this visualization, two nodes are connected by an edge if they agreed on more than two-thirds of the bills on which both voted, or not connected if they agreed on less.<sup>27</sup>

There are clearly discernible blocs for white planters and for new elite merchants, while new elite planters’ voting connections were more spread between the two blocs. In our theory, voting blocs result from shared accountability or shared economic interests, since an elite member decides whether to support extractive policies solely based on their individual payoffs. All accounts of politics in the Caribbean assemblies are consistent with this view in that they emphasize the ab-

<sup>27</sup> This network visualization has no scale and no axis. Two nodes are connected by an ‘edge’ if they agreed on more than two-thirds of the bills on which both voted, or not connected if they agreed on less. The placement of nodes in the graph is determined by these edges. Figure 3 was built in Gephi, using the Yifan Hu visualization algorithm.

sence of stable coalitions or any form of party discipline (Heuman, 1981; Holt, 1991; Honychurch, 1984). Figure 3 depicts a period in Jamaican politics when white planters still had a firm grip on the assembly. Our theory suggests assemblymen from the new elite had no need to support extraction in this period. The visual blocs in Figure 3 are consistent with our theory, but on their own they are not enough to support it as a plausible alternative to potential competing theories. In the following, we will present more rigorous evidence for our theory.

#### 4.1.2 Political Accountability

A premise of our theory is that elites varied in their ‘social proximity’ to the citizenry, and that closer proximity meant greater political accountability. On the ten islands, new elites are of the  $\theta_i = H$  type, while old elites are of the  $\theta_i = L$  type.

**Electoral Accountability as Political Accountability:** In the model as well as the data, we focus on differences in *electoral* accountability. Voting in the Caribbean assemblies was by voice vote, and thus publicly observable. Assemblymen were therefore politically accountable for their voting record. However, British white assemblymen were less accountable to the black citizenry than their counterparts from the new elite. A major reason for this difference was that almost all white elites were planters, and these white planters were returned to the assemblies via long-standing landlord-tenant patronage relations. For the traditional Caribbean British planter-legislator, his “relationship to his constituents had a similarity to the relationship of the classic English patron and his retainers; the core of his political support appeared to come from tenants on his own estates, whose taxes and voter registration fees he paid” (Holt, 1991, p. 293).<sup>28</sup> New plantation owners did not have the same patronage networks, particularly when compared to the ‘great attorneys’ who were often in charge of twenty or more estates at the same time and who constituted a majority of the white planters in many of the islands (Smith, 1953, p.56).

**Other Forms of Accountability:** While electoral accountability is the focus of our analysis, there were other dimensions along which new elites were more accountable to the citizenry. One dimension that may have mattered to an extent was that new elites were “accountable to themselves” in the sense that a behavioural force of in-group altruism could have played some role

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<sup>28</sup> Baland and Robinson (2008) describe such relational voting and its pernicious effect on political development in Chile.

in shaping new elites' empathy towards the citizenry, as in [Akerlof and Kranton \(2000\)](#), [Shayo \(2009\)](#) and [Bramoullé and Goyal \(2016\)](#). Another dimension may have been social stigma or social sanctions for supporting extractive policies. Such forces should be more effective when social distance to the citizenry is low, as in [Miguel and Gugerty \(2005\)](#). Also, citizens may feel greater betrayal by leaders from their own group, as in [Di Tella and Rotemberg \(2016\)](#). Lastly, political accountability may have gone beyond electoral accountability in the case of violent uprisings. The threat of violent uprisings loomed ever-large over Caribbean elites and it was the new elite who was most exposed to it, as it could not count on the protection of the British Naval garrison and the colonial judicial apparatus to the same degree as British citizens ([Trouillot, 1988](#), p. 101).<sup>29</sup> An earlier version of this paper studied these non-electoral sources of political accountability, and found similar results to the ones presented here ([Carvalho and Dippel, 2016](#)), but had to rely on scarce and potentially inconsistently reported episodes of local riots. We therefore re-focused the analysis on electoral accountability.

**Measuring Electoral Accountability using the number of districts assemblymen ever represented:** The historical narrative above suggests that lower political accountability came about in part from local patronage networks. Since patronage networks are immobile, one way to empirically test for differences in electoral accountability is to check whether unaccountable assemblymen were less likely than their new elite counterparts to represent several different electoral district over the course of their tenure. The assemblymen's electoral districts were reported in the *Colonial Blue Books* discussed earlier.<sup>30</sup> In [Table 1](#), we relate each assemblyman's type to the number of parishes that represented during their tenure. Columns 1–2 focus on assemblymen in all 10 islands for the roughly 30 years from Emancipation to the island-specific year an assembly was dissolved. Instead of comparing assemblymen only within the post-Emancipation period, in Jamaica we can also compare them prior to Emancipation because we have Jamaica's full history of assemblymen going back to 1664 from [Roby \(1831\)](#). This is done in columns 3–4. We find in column 3 that new elite assemblymen on average represented more parishes during their tenure

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<sup>29</sup> Selective protection by British troops in the middle of an uprising was probably not the important point of distinction between old and new elites. Rather, it was clear that the colonial judicial administration would go hard after anyone who injured or killed a British citizen, while the same could not be said for injuring a local elite member. Reinforcing this was the fact that white elites were often more physically removed from the consequences of policies on the ground. As British citizens, they were in fact frequently absent from the islands.

<sup>30</sup> [Online Appendix Table 2](#) lists these electoral districts (islands' parishes) from which assemblymen were returned.

Table 1: Electoral Accountability by Social Group

outcome:	No. of Parishes Represented				Re-Election		
	(1)	(2)	(3)	(4)	(5)	(6)	
I(New Elite)	0.089* [0.065]		0.394*** [0.000]		I(New Elite) x I ( $v_{it}=1$ )	-0.879*** [0.006]	
I(New Elite Planter)		0.125* [0.073]		0.413** [0.047]	I(New Elite Planter) x I ( $v_{it}=1$ )	-1.156** [0.034]	
I(New Elite Merchant)		0.102* [0.086]		0.387*** [0.002]	I(New Elite Merchant) x I ( $v_{it}=1$ )	-0.653* [0.071]	
First Year in Assembly	-0.013*** [0.000]	-0.013*** [0.000]	-0.011*** [0.000]	-0.011*** [0.000]	I(Old Elite Merchant) x I ( $v_{it}=1$ )	0.196 [0.215]	0.166 [0.304]
					I(New Elite)	0.532*** [0.001]	
					I(New Elite Planter)	0.404 [0.187]	
					I(New Elite Merchant)	0.481*** [0.007]	
Sample:	All Islands, from 1838		Jamaica, from 1664				
fixed effects	island	island	-	-	election	election	
Observations	867	867	329	329	204	204	
R-squared	0.077	0.078	0.149	0.149	0.160	0.134	

*Notes:* In columns 1–4, the outcome is the number of different electoral districts an assemblyman represented over their tenure. Columns 1–2 report on all assemblymen we observe across the 10 islands and who first appeared in the assemblies after 1838. Columns 3–4 report on Jamaica only, where we observe all assemblymen from the assembly’s inception in 1664. The two data-sets partially overlap for Jamaican legislators from 1838 onwards. The number of observations equals the number of individual legislators in columns 1–4. (b) In columns 5–6 we investigate (in Jamaican voting data) whether an individual’s re-election penalty for supporting extractive policy depended on his social identity, as assumed in the model. The number of observations equals the number of legislator-elections. (c) *p-values* for are reported in square brackets, standard errors are robust in columns 1–4, and clustered at the individual level in columns 5–6. \*\*\*, \*\*, \* denote 1%, 5% and 10% statistical significance.

than white assemblymen, both in the post-Emancipation period, and in a long-run comparison going back to the 17th century.<sup>31</sup> Column 4 shows that this is not due solely to new elites being more likely to be merchants, and thus more mobile. Indeed new elite planters appear to be just as likely to represent several parishes as new elite merchants.

**Measuring Electoral Accountability in the Voting Data:** We interpret Table 1 as *prima facie* evidence that assemblymen from the new elite were more electorally accountable because they could not rely on established patronage networks.<sup>32</sup> When we restrict ourselves to only Jamaica, we can confidently assign roughly one quarter of bills to one or more of the three types of ex-

<sup>31</sup> To address truncation at the end of the data, when an assembly was dissolved, we control for the first year an assemblyman entered, a variable that should shorten political careers, and thereby also reduce the number of parishes represented. To address truncation at the beginning of the data in columns 1–2, we include only assemblymen who appeared in the first election we observe, which was typically one or two years after Emancipation.

<sup>32</sup> We would have also liked to verify that expansions in the franchise were associated with the rise of new elite assemblymen, something which is strongly suggested by historical accounts. Unfortunately, the *Blue Books* do not report data on the franchise until the late 1850s and in some colonies the early 1860s.

tractive policies described.<sup>33</sup> This allows us to more directly test the premise that new elites were more politically accountable than white elites. Specifically, we can ask if a legislator’s re-election probability was more negatively affected by having supported extractive bills if he was an  $H$  type:

$$\mathbb{P}(reelect_{it} = 1) = \alpha_t + \sum_{\Theta \in \mathcal{T}} \gamma_{\Theta} \times \mathbb{I}(\Theta_i = \Theta) \times \mathbb{I}(v_{it} = 1) + \epsilon_t. \quad (5)$$

If our basic premise is true we should see a differential effect for  $(H, h)$  types (new elite planters) and  $(H, \ell)$  types (new elite merchants) relative to the omitted category of  $(L, h)$  types (white planters) in our data. Since the question is defined on electoral cycles, we can include electoral cycle fixed effects  $\alpha_t$  to control for any time-variation in re-election probabilities.

This is done in columns 5–6 of Table 1. We recognize that individual elite member  $i$ ’s voting decisions  $\mathbb{I}(v_{it} = 1)$  are endogenous to his electoral accountability, in accordance with our theory. As such, the coefficients in columns 5–6 should therefore not be interpreted as the causal effect of a new elite member’s support of extraction on their re-election probabilities. Instead, the key point is that our theory assumes that the average white elite member who supports the extractive policy is less accountable for doing so than the average new elite member who supports the extractive policy. The data support this assumption. We find no electoral penalty for supporting extraction among traditional British elites ( $\gamma_L > 0$  with a  $p$ -value of at least 0.215), whereas new elites appear to incur a pronounced re-election penalty for supporting extraction, with a highly significant coefficient of  $-0.879$ . We recognize that we are slightly abusing notation here since the reported effect of supporting extraction on re-elections  $\gamma_L = 0.196$  in column 3 is common to both elite groups, so that the new elites’ re-election penalty for supporting extraction is  $\gamma_H = 0.196 - 0.879 = -0.683$ .

## 4.2 Equilibrium

In Section 3.2 we describe a voting equilibrium in which rent extraction through voting is akin to the provision of a threshold club good, the club here being the elite and the club good being economic rents from extractive policy. Here, we describe this club and the club good in their practical incarnations on the ten islands.

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<sup>33</sup> To validate our coding of extractive bills we verified that they were more contentious, i.e. were passed (or defeated) with narrower margins. Using the totality of bills, we regressed the vote-margin on an indicator for a bill being classified as extractive and indeed found that such bills had a 6% smaller vote margin, an effect that was highly significant.

**The Club:** In our model—conditional on  $\omega_i \in \{h, \ell\}$ —new elite members are less likely to support extraction because of their higher political accountability  $\theta_i \in \{L, H\}$ . While we do not discount the possibility that new elites felt more altruism towards the black citizenry (see footnote 8), the historiography of the ten islands suggests that any such *ingroup bias* was dominated by factors that connected the old British and new elites.<sup>34</sup> Not only were the new elite and the black citizenry “two entirely separated classes of people” at the time of Emancipation (Baker, 1994, p129), it is clear the new elite was if anything growing closer to the old British elite over time: Henry Taylor, a high-ranking official in the *Colonial Office* at the time, stated that “it was common knowledge that [the new elite] tended to amalgamate with the whites in their uncharitable disposition toward the [black] peasantry” (Taylor, 1885, p. 216); Craig-James (2000, p. 201) writes that “the rigid barriers” that had divided whites from the new elite “were eroded in the free period” and “the most established [new elites] attended the governor’s balls, their wives and daughters were pillars of the Church of England”; and Green (1991, p.296) writes that “although whites continued to dominate society in most colonies [...] in numbers [the new elite] constituted the largest segment of the *European culture group* at the end of the period.”

**The Club Good:** In the model, the elite votes on a binary extractive policy proposal  $x_t \in \{0, 1\}$ . In practice, extractive policies in the post-Emancipation Caribbean could be grouped into three categories: (i) policies were passed to depress wages and ensure a steady supply of plantation labour. These included anti-squatting and anti-vagrancy laws.<sup>35</sup> (ii) There was political conflict over revenue raising, especially land taxes and customs duties. Plantations favoured land-taxes that taxed any land-holdings but had declining marginal tax rates for larger holdings. Black small-scale farmers protested that “parochial land taxes pressed hard on small proprietors” (McLewin, 1987, p. 184). Political conflict also centred on customs duties. Perhaps surprisingly, import tariffs on foodstuffs were one of the most progressive forms of taxation because food was imported almost exclusively to feed plantation workers, with the plantations otherwise buying provisions from peasants. Food tariffs not only raised the plantations’ cost of feeding workers but also “tended to deplete labor reserves by driving workers from plantations to the hinterland, where they grew ground provisions” (Rogers, 1970, p.96). Policies in categories (i) and (ii) had

<sup>34</sup> Moreover, ingroup altruism generates neither stepping up nor institutional change.

<sup>35</sup> According to McLewin (1987, p. 189), “assemblies brought into law an umbrella of coercive acts with the purpose of creating a landless peasantry.”

closely related aims: high taxes on small-holds were not only regressive, but also contributed to sustaining a labour pool because failure to pay them led to loss of title (Satchell, 1990, ch. 4). (iii) A third contentious issue was policies about public good provision. The emancipated former slaves' primary concerns were land redistribution and public good provision. Elites were disinterested in the expansion of education and health services because they provided these to themselves as club goods rather than as public goods (Sewell 1861, p. 39, Dookhan 1977, Brizan 1984, p. 163).<sup>36</sup>

In our theory, *all* elite members derive an economic benefit from extractive policies, and are only kept from supporting them by re-election concerns. While it is plausible in the Caribbean that new elite merchants ( $(H, \ell)$  types) would have favoured some of the extractive policies discussed above, it is also possible that they would not have favoured others. Revenue raising and public good provision were the areas of policy where the incentives of all elite members were closely aligned, hence  $\pi(1, \ell) - \pi(0, \ell) > 0$ . Policies aimed at securing a steady labour supply and undermining small-scale farming were more critical to the landed gentry. Therefore, in the overall policy bundle  $\pi(1, h) - \pi(0, h) > \pi(1, \ell) - \pi(0, \ell) > 0$ , as in our model. These inequalities highlight the importance of being able to identify a legislator's economic as well as social type, which we can do in our data.

### 4.3 Elite Composition and Political Outcomes

In Section 3.3 we describe how support for the extractive policy varies with elite type. The theory suggests that new elite planters should be less likely than white elites to vote for extractive policies, and new elite merchants should be least likely to do so. We can test this hypothesis by estimating equation

$$\mathbb{P}(v_{it} = 1) = \alpha_t + \sum_{\Theta \in \mathcal{T}} \kappa_{\Theta} \times \mathbb{I}(\Theta_i = \Theta) + \epsilon_{it}, \quad (6)$$

which expresses assemblyman  $i$ 's support for extractive policies as a function of his identity  $\Theta_i$  (as well as capturing broad changes in voting behaviour with year fixed effects  $\alpha_t$ ).

We pursue two alternative approaches in dealing with the voting data. In a first approach, we use assemblyman  $i$ 's overall voting agreement with the white planters to proxy for  $\mathbb{P}(v_{it} = 1)$ .

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<sup>36</sup>Holt (1991, p.196) argues that "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. The wealthier resident planters sent their children to a few select private academies on the island and to England." The same was arguably true for the islands' non-planter elites.



Only in Barbados, Grenada and Jamaica did the *Assembly Minutes* report roll-call voting information regularly enough to allow us to construct voting networks.<sup>37</sup> We measure voting agreement as follows: We collapse the entire network of pairwise voting relations from the *Assembly Minutes* measured over all bills for Barbados, Grenada and Jamaica. This approach is visually represented in Figure 3. We aggregate voting relations for a full year to compensate for the fact that we include procedural and ambiguous votes. In this approach we take as given that the white planter bloc is the most supportive of extractive policies, and calculate each assemblyman  $i$ 's voting agreement with this bloc. We interpret an individual who displays higher average agreement with all white planters in a given year as being more supportive of extractive policies. To be precise, let  $I_{ijk} = 1$  if assemblymen  $i$  and  $j$  agree on bill  $k$ , and let  $K_{ijt}$  be the set of bills that both  $i$  and  $j$  voted on in year  $t$ . We define their voting overlap as  $vo_{ijt} \equiv \frac{1}{|K_{ijt}|} \sum_{K_{ijt}} I_{ijk} \in [0, 1]$ . With  $n_{\Theta_i}$  denoting the number of type  $\Theta_i$  elites,  $\mathbb{P}(v_{it} = 1)$  is measured as assemblyman  $i$ 's voting agreement with the white planters,<sup>38</sup> defined as

$$\frac{1}{n_{(L,h)}} \sum_{\Theta_j=(L,h)} vo_{ijt}. \quad (7)$$

While illustrative, results based on measuring  $\mathbb{P}(v_{it} = 1)$  by equation (7) need to be taken with a grain of salt because measured in this way, the outcome is averaged over many bills that are not necessarily coercive, i.e. procedural bills and bills where it is very difficult to say exactly what they were about.<sup>39</sup> In a second approach, we therefore restrict ourselves to records from the *Jamaica Vote Books* where we can isolate extractive bills, and measure  $\mathbb{P}(v_{it} = 1)$  directly. (We refer the reader back to Section 4.1.2, "Measuring Electoral Accountability in the Voting Data".)

Table 2 reports on the results of estimating equation (6). In Panels A and B, the outcome is as defined in (7). Panel A, for Jamaica, presents results for eight specifications. Across columns 1–4, the data suggest new elites were on average about ten percentage points less likely to vote with white planters over all bills. Column 1 reports results of a univariate regression on only an indicator that  $i$  is a new elite member (in the model, a high-accountability social type  $\theta_i = H$ ).

<sup>37</sup> The colonial records contain some rudimentary voting records of the assemblies, but as we discussed, the records were sparse. We refer the reader back to the paragraph titled "Measuring Voting Behaviour" in Section 4.1.1.

<sup>38</sup> If  $i$  is himself a white planter, he is naturally excluded from this summation.

<sup>39</sup> A typical record for a purely procedural bill is an October 22nd 1839 bill that read "A bill to prepare an address to the governor for the opening of the legislative session." A typical record where it was impossible to determine a bill's meaning even though the bill may well be important was a June 17th 1864 bill that read "a motion that the house do disagree to the third amendment proposed by the legislative council in their said message to the bill mentioned," with no further explanation on the bill in question.

Table 2: Voting for Extraction by Group

Panel A. *Voting Overlap* with the White Planters: Jamaica

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
I(New Elite)	-7.810*** [0.000]	-8.903*** [0.000]	-10.089*** [0.000]	-11.028*** [0.000]				
I(New Elite Planter)					-2.077 [0.369]	-3.075 [0.172]	-3.009 [0.317]	-3.696 [0.235]
I(New Elite Merchant)					-9.101*** [0.000]	-10.158*** [0.000]	-11.374*** [0.000]	-12.293*** [0.000]
weighted <i>p-val</i> [New Pl.= New Mer.]			Y	Y			Y	Y
year FE		Y		Y		Y		Y
Observations	999	999	999	999	999	999	999	999
R-squared	0.092	0.193	0.160	0.243	0.110	0.211	0.184	0.268

Panel B. *Voting Overlap* with the White Planters: Barbados & Grenada

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
I(New Elite)	-3.788* [0.100]	-3.645** [0.033]			-4.300*** [0.007]	-4.049** [0.021]		
I(New Elite Planter)			-2.816 [0.158]	-1.610 [0.374]			-3.722** [0.018]	-3.528** [0.032]
I(New Elite Merchant)			-4.319 [0.177]	-4.744** [0.014]			-4.609** [0.015]	-4.456** [0.044]
island:	Barbados				Grenada			
<i>p-val</i> [New Pl.= New Mer.]			0.6865	0.2276			0.6114	0.626
year FE		Y		Y		Y		Y
Observations	1,064	1,064	1,064	1,064	733	733	733	733
R-squared	0.009	0.156	0.010	0.158	0.011	0.097	0.012	0.098

Panel C. Voting for Extractive Bills: Jamaica

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
I(New Elite)	-3.503* [0.051]	-3.547** [0.049]	-0.304 [0.757]	0.084 [0.928]				
I(New Elite Planter)					-0.262 [0.939]	0.255 [0.940]	-0.796 [0.687]	-0.520 [0.786]
I(New Elite Merchant)					-4.223** [0.025]	-4.400** [0.021]	-0.195 [0.851]	0.220 [0.825]
Bills:	Extractive				Extractive			
<i>p-val</i> [New Pl.= New Mer.]					0.2627	0.1878	0.7692	0.7142
year FE		Y		Y		Y		Y
Observations	3,848	3,848	22,249	22,249	3,848	3,848	22,249	22,249
R-squared	0.001	0.023	0.000	0.007	0.002	0.024	0.000	0.007

Notes: (a) In Panel A and B, the outcome is an assemblyman's average voting overlap with all white planters in a given year. Panel A shows eight specifications. Panel B shows the 4 core specifications for each of Barbados and Grenada. 999, 1064, and 733 are the number of assemblyman-year observations in each island. Data in panels A and C are for Jamaica only. In Panel C, we organize the data by bill, and the outcome is simply an indicator for whether an assemblyman supported a bill, separately considering extractive and non-extractive bills. We can only reliably glean the bills' content in Jamaica, where the data comes from a *Hansard*. The number of observations is thus the product of bills and legislators voting on them. (b) The omitted category in all regressions is white planter, i.e. the  $\Theta_i = (L, h)$  type. (c) *p-values* for standard errors clustered at the individual level are reported in square brackets, \*\*\*, \*\*, \* denote 1%, 5% and 10% statistical significance.

The omitted category is white planters. New elite legislators agreed eight percentage points less with white planters than white planters agreed among themselves.<sup>40</sup> Column 2 includes year fixed effects to allow for broad trends in the composition of bills (extractive vs non-extractive) tabled for vote. Columns 3–4 weight the regressions by the number of bills over which each observation was averaged, since legislative sessions with more voting should arguably receive higher weight. This sharpens the results. Columns 5–8 repeat 1–4 but further partition new elites by their economic identity, i.e. being a planter or a merchant (or, in the model, a  $\omega_i = h$  or a  $\omega_i = \ell$  type). Columns 5–8 show that new elite planters indeed display much closer voting overlap with white planters than new elite merchants. Panel B shows only the un-weighted specifications for the two other islands for which we have a sufficient number of bills, namely Barbados and Grenada. The results are very similar to those for Jamaica in Panel A, although the distinction between new elite planters and merchants is less sharp in Grenada than in Jamaica and Barbados. In summary, across the three islands, new elite planters are less likely than white elites to vote for extractive policies, and new elite merchants are least likely to do so, as hypothesized. [Online Appendix Table 3](#) re-estimates Panels A and B, which results in somewhat smaller point estimates but similar levels of statistical significance on the coefficient of interest.

We now hone in more precisely on the extractive content of the bills, focusing on Jamaica, where good information on bills exists. The data is organized by bill, and the outcome is simply an indicator for whether an assemblyman supported a bill. Columns 1–2 and 5–6 in Panel C focus on bills that we coded as extractive in the sense described beforehand.<sup>41</sup> By contrast, and serving as a placebo test, columns 3–4 and 7–8 use the other bills that were either procedural or had no relation or an ambiguous relation to extractive policies. Column 1 again reports on a univariate regression of only an indicator (scaled to be 0 or 100) for supporting an extractive bill on an indicator that  $i$  is new elite member. Column 2 adds year fixed effects. Unlike in panel A, year controls do not matter since we have already isolated bills that are extractive. In columns 1 and 2, new elites are 3.5 percentage points less likely than white elites to support an extractive bill. Columns 5–6 again break down the new elite by economic identity. As before, new elite planters are closer to whites than new elite merchants. In panel C they in fact do not vote differently from white elites. It is only

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<sup>40</sup>On average, a white planter agreed with all other white planters on about 65% of bills in a given year.

<sup>41</sup> If a bill was for a policy against extraction, e.g., a progressive land tax, then votes were inverted so that after inversion a ‘yes’ vote always meant supporting an extractive policy.

new elite merchants who are about four percentage points less likely than white elites to support an extractive bill. Indeed, columns 3–4 and 7–8 do not exhibit the difference in voting by legislator identity seen in the rest of panels A and B.

#### 4.4 Elite Composition and Voting Interactions: ‘Stepping Up’

Section 3.4 describes one of the key mechanisms by which extractive policies persist even as the share of accountable elites rises: Proposition 2 of the theory postulates that when less accountable  $(L, \omega)$  types are replaced with more accountable  $(H, \omega)$  types, individual elite members ‘step up’, i.e. become more likely to support extractive policies.<sup>42</sup> A pertinent example of such a dynamic that is discussed in some detail in historical accounts involved proposals to tighten suffrage rules in Jamaica. During the period we study, two local acts attempted to raise suffrage qualifications in order to put a lid on Jamaica’s expanding franchise. The first, narrowly defeated in 1854, saw nine of 12 new elite assemblymen vote against it. However, five years later, the Franchise Act of 1859 instituted a more stringent tightening of franchise qualifications, and this time seven of 13 new elite assemblymen voted for it (Holt 1991, ch.8, Heuman 1981, p.159-163). Holt notes of this change in new elite legislators’ voting behaviour that “some brown assemblymen obviously voted against the interests of their constituents,” and his interpretation is that “many brown assemblymen might have anticipated the imminent flowering of majority rule, with the uneasy realization that they might themselves not be part of that majority.”

We can also test Proposition 2 statistically by interacting individual elites’ support for extractive bills with the time-varying share  $\frac{n^{(L,h)}}{n}_t$  of white planters in the assembly

$$\mathbb{P}(v_{it} = 1) = \alpha_i + \sum_{\Theta \in \mathcal{T}} \beta_{\Theta} \times \mathbb{I}(\Theta_i = \Theta) \times \frac{n^{(L,h)}}{n}_t + \epsilon_{it}. \quad (8)$$

Because this share  $\frac{n^{(L,h)}}{n}_t$  varies by electoral cycle, and individual legislators held their seats across electoral cycles, equation (8) allows us to study changes in voting behaviour conditional on individual preference fixed effects  $\alpha_i$ , i.e. controlling for  $i$ ’s baseline likelihood of supporting extractive policies. If the stepping-up prediction holds in the data we should see a differential effect

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<sup>42</sup> The same prediction is made when more economically invested elite types  $(\theta, h)$  are replaced with less economically invested  $(\theta, \ell)$  types.

Table 3: Evidence for ‘Stepping Up’

		(1)	(2)
I(Old Elite)	x $n^{(L,h)}/n$	-0.253 [0.192]	-0.164 [0.292]
I(New Elite)	x $n^{(L,h)}/n$	-0.550*** [0.009]	
I(New Elite Planter)	x $n^{(L,h)}/n$		-0.965*** [0.000]
I(New Elite Merchant)	x $n^{(L,h)}/n$		-0.373** [0.030]
fixed effects:		individual	
Observations		3,848	3,848
R-squared		0.066	0.067

Notes: (a) In this table we investigate whether individual support for extractive policy depends on the composition of the legislature. ‘Stepping up’ predicts an increase in support for extraction among new elites when  $\frac{n^{(L,h)}}{n}$  falls, i.e. a negative coefficient. Standard errors are clustered at the individual level for 100 Jamaican legislators from 1838–1865, *p-values* are reported in square brackets. (b) All data in this table are for Jamaica only; \*\*\*, \*\*, \* denote 1%, 5% and 10% statistical significance.

for  $(H, h)$  types (new elite planters) and  $(H, \ell)$  types (new elite merchants) relative to the omitted category of  $(L, h)$  types (white planters) in our data. We recognize that we treat the colony-level variation in  $\frac{n^{(L,h)}}{n}_t$  as econometrically exogenous to the individual assemblyman when estimating equation (8). Our justification for doing so that is the primary source of identifying variation in  $\frac{n^{(L,h)}}{n}_t$  is a secular decline in the share of white planters over time (see Figure 1), which can arguably be viewed as exogenous to the individual assemblyman.

Table 3 reports on the results of estimating equation (8). Indeed we see that new elites increase voting for extractive policies when the white planter bloc shrinks, i.e. when  $\frac{n^{(L,h)}}{n}_t$  falls. Column 2 shows that this interaction is more pronounced for new elite planters than merchants. While the theory does not deliver a clear prediction on this difference, the patterns makes sense because new elite planters have a larger economic payoff than new elite merchants from stepping up. It also matches the empirical observation (Panel C of Table 2, columns 5–6) that new elite planters were on average much more likely than new elite merchants to support extractive bills. The variable  $\frac{n^{(L,h)}}{n}_t$  is scaled to lie between 0 and 100; the indicator  $\mathbb{P}(v_{it} = 1)$  is scaled to take values 0 or 100. Therefore, the estimated coefficient  $-0.965$  implies that a one percentage point decrease in the white planter bloc increased a new elite planter’s likelihood to support an extractive bill by one percentage point.

This stepping up behaviour is consistent both with the new elite sharing the old elite’s eco-

conomic interest in extractive policy, and with our theory on how extractive policy comes to pass even in the face of rising accountability.

## 4.5 Institutional Change

There are limits to the extent to which ‘stepping up’ can compensate for a rising share of more accountable elites. When this share becomes large, ‘stepping up’ is not enough and the equilibrium that sustains extractive policies is likely to fracture. Section 3.5 analyses how elites may then, as a last resort, “pull the ripcord” of changing the formal institutions that govern accountability. Such institutional change can take many forms. In our Caribbean case study, it meant that local elites switched to ‘Crown Rule,’ which quite literally meant an assembly had to dissolve itself. The *Colonial Office* described one such switch succinctly: “The assembly [...] addressed the Queen that it had passed a bill for its own extinction” (Britain, 1879, p. 188). These switches were a remarkable form of institutional change. As described in Section 4.1.1, the assemblies had extraordinary local powers, and the islands’ elites had for two centuries “jealously guarded [them] against interference by the colonial administration” (Wrong 1923, p. 70).

In our setup, institutional change occurs when the share of accountable elites rises too much to be absorbed by ‘stepping up.’ In our historical setting, this is illustrated well by Barbados. Barbados was the special case among the ten islands. It shared with them a history of slave-based sugar production, and it shared with them the existence of a potential new (mixed-race) elite. However, Barbados was unique among the islands in that it consisted of flat limestone rather than rugged volcanic stone.<sup>43</sup> This meant plantations comprised 95% of land on the eve of emancipation, compared to under 50% elsewhere in the Caribbean (Engerman, 1984; Patterson, 2013). Therefore, post-Emancipation Barbados had no hinterland that black citizens could purchase, therefore they obtained the franchise at a much lower rate than elsewhere, and therefore the share of new elites in the Barbadian assembly remained below ten percent throughout the nineteenth century. Changes in the composition of the Barbadian assembly were so muted that institutional change never became necessary; and indeed, Barbados was the sole island that never did dissolve its assembly.

All of the history we have read agrees with the broad assessment that institutional change happened because “it was hoped that Crown Colony Government would preserve the existing

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<sup>43</sup> We discuss the geography more in [Online Appendix C](#).

political status quo” (Dookhan, 1977, p202-205). Most Caribbean historians also agree that change was necessitated by the changing composition of the elite. However, they disagree on *why* the changing composition of the elite necessitated institutional change. Some argue that the dissolution of the assemblies was a case of white elites trying to shut down the emergent new elites: Lowes (1994, p.35) argues that “in the end, the demand of an increasingly restive nonwhite middle class for a voice in island affairs proved the greater fear [than ceding power to the colonial office], and the white elites voted themselves out of office.” Ashdown (1979, p.34) argues in a similar vein 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 [new elite] who were slowly obtaining greater representation in the legislative councils.” This is more akin to the narrative where institutional change is driven by an old elite thwarting the rise of a new elite (as in Acemoglu and Robinson 2012; Trefler and Puga 2014). Others argue for an interpretation that is much closer to our theory and narrative: Rogers argues that “fear of political displacement by the [new] middle class was a primary reason for its cooperation in destroying representative government” (1970, p. 316). Similarly, Fergus (1994, p.81) concludes that the point of *Crown Rule* was to alleviate the elite’s accountability for an extractive system as it created “a more subtly exclusive system as far as free blacks were concerned. There was only room [in it] for whites and their wealthy [mixed-race] equivalents.” This is more akin to our narrative where old and new elites cooperate to preserve rents to both groups.

We now offer four observations in favour of our narrative: First, the vote to dissolve the assembly was everywhere shrouded in deep secrecy, and there was no public outcry about it by the new elites on any of the islands, whilst there does appear to have been great concern about an outcry by the black citizenry. Lowes (1995, p.46) suggests that in Antigua “the vote took place in secrecy to forestall any public protest,” and the *Assembly Minutes* in Nevis reveal that the meeting of June 14th 1866, when the dissolution of the assembly was voted on, began with the reading of a petition by smallholders against the dissolution of the Assembly. We screened all of the islands’ *Assembly Minutes* for the relevant sessions, and there were no voting records on the decision to dissolve the assembly even in Jamaica, where the *Jamaica Vote Books* (unlike other islands’ *Assembly Minutes*) recorded practically all votes.

Second, in the only two islands where the *Minutes* reported on the votes for the dissolution—

St. Vincent and Grenada — the majority of new elites voted in favour of dissolving the assembly: In St. Vincent, five of the nine new elite legislators voted in its favour; and in Grenada eight of thirteen new elite legislators voted in its favour. Support by new elite legislators was thus not uniform, but this would be expected given some variation in the cost of voting for dissolution.

Third, the new elite was a majority in many of the assemblies when they voted to dissolve themselves. This can be clearly seen in Figure 1, where the dissolution and concurrent switch to ‘Crown Rule’ marks the end-point in each panel. Dominica, Montserrat, Grenada, Tobago and Antigua had majorities of assemblymen from the new elite when the assemblies voted to dissolve themselves, while Jamaica, St Kitts, Nevis, and St Vincent, had large minorities. On the islands, the vote to dissolve the assembly could not have passed if new elite assembly-members had systematically opposed it, and there would have been records of this in the *Minutes* if they had.

Fourth, the citizenry’s increasing discontent with the persistence of extractive policies was very tangible in the years leading up to the dissolutions of the assemblies, and this discontent manifested itself in a threat of riots and violent uprisings that was at least as worrisome if not more for new elites than it was for the British elites. Indeed, violent uprisings were arguably the primary form of political accountability elites faced in the years immediately before the assemblies’ dissolution: Rogers (1970, p. 262-266) argues that violent uprisings in St Vincent, which lasted from September 25 to October 8 1862 and had “many members of the upper class, white and [mixed race], fear for their lives,” were the direct precursor to the initiation of constitutional reform. Similarly, the ‘Bellmana Riots’ in April 1876 directly preceded the dissolution of Tobago’s assembly (Craig-James, 2000, p.237,251). The same is true in Jamaica, where it has long been held that the Assembly’s dissolution was a direct response to the Morant Bay Rebellion (Lewis, 2004, p.96).<sup>44</sup>

In combination, these four observations are consistent with our narrative and (at least the first three) are inconsistent with the alternative narrative whereby old British elites dissolved the assemblies to shut out an emergent elite.

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<sup>44</sup> As we discuss in Section 4.1.2, electoral accountability was not the only form of political accountability. We load political accountability onto electoral accountability in our theory because we want to stay within the legislative voting framework, but the threat of violent uprisings hung over the Caribbean islands throughout the period we study.



## 5 Discussion & Conclusion

In 1836, the emancipation of slaves in the British Caribbean freed over ninety percent of the population, a sizable fraction of which obtained the franchise, i.e. the right to vote. This transformed the political elite, with a new group of legislators emerging who were socially closer and more accountable to the citizenry. Yet this dramatic change did not produce the expected improvements in political outcomes. For decades, “the dead hand of the past” continued to lie on the Caribbean, until increasing political unrest culminated in nine out of ten legislative assemblies voting to shut down the democratic process and hand over executive control to the British crown.

We analyse theoretically the mechanisms that could preserve an “iron law of oligarchy” even under conditions thought to be conducive to political reforms. Two key mechanisms are identified: First, when the share of accountable legislators increases, legislators who previously free rode ‘step up’ and vote in favour of extractive policies. Second, when accountable legislators become too numerous, they may cooperate with old elites in weakening democratic institutions (at a cost) to shield themselves from their higher electoral accountability.

Using novel archival data, we apply our theory to an historical analysis of the post-Emancipation Caribbean, where we can get an unusually sharp characterization of the social and economic identity of each elite member. Our analytic narrative shows why changes in political identity may not translate into improvements in political outcomes, even under electoral institutions and where new elites are more accountable to the citizenry. Raising political accountability through the electoral system can only be achieved when there are proper institutional safeguards of the electoral system. This is a strong form of the “iron law of oligarchy”.

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## Appendix A Mathematical Appendix

**Proof of Proposition 1.** (i) Consider an arbitrary time  $T$ . By hypothesis  $d_T^* \geq 0$ .

In a voting equilibrium,  $v_{iT} = 1$  for exactly  $\lceil \frac{1}{2}n \rceil$ . Consider such an  $i$ .

We first compute bounds on  $i$ 's continuation payoffs. Define two states,  $s_{it} = 1$  if  $i \in N_t$  and zero otherwise. Let  $V_0$  and  $V_1$  be the expected discounted sum of payoffs to  $i$  in state 0 and state 1, respectively. We can construct an upper bound on the difference  $V_1 - V_0$ , which is independent of  $z$ , by supposing extractive policy is passed if and only if  $s_{it} = 1$ ,  $s_{it} = 0$  is absorbing, and  $P_{it} = \bar{p} = 1$  for all  $t \geq T$ . This yields:

$$V_1 - V_0 = \pi_i + r + \delta(V_1 - V_0) \quad (9)$$

or

$$V_1 - V_0 = \frac{\pi_i + r}{1 - \delta}. \quad (10)$$

Because  $i$  is pivotal, a lower bound on the difference between his equilibrium payoff and the payoff from a one-shot deviation to  $v_{iT} = 0$  is

$$\pi_i - \delta(\bar{p} - P_{iT})[V_1 - V_0]. \quad (11)$$

Substituting in (10), there is no profitable one-shot deviation if

$$\pi_i - \delta(\bar{p} - P_{iT}) \frac{\pi_i + r}{1 - \delta} \geq 0 \quad (12)$$

$$d_{iT} \geq 0. \quad (13)$$

$$(14)$$

This holds since  $d_{iT} \geq d_T^* \geq 0$  by hypothesis.

Now consider  $i$  for which  $v_{iT} = 0$  in equilibrium. We again begin by computing  $i$ 's continuation payoffs.

The expected continuation payoff at  $T + 1$  to  $i \in N_{T+1}$  is

$$U_i(s_{iT+1} = 1) = r + \mathbb{P}(D_{T+1}^* \geq 0 | s_{iT+1} = 1) \pi_i \\ + \delta \mathbb{E}[P_{iT+1}] U_i(s_{iT+2} = 1) + \delta(1 - \mathbb{E}[P_{iT+1}]) U_i(s_{iT+2} = 0). \quad (15)$$

Let  $\mathbb{E}[\tilde{P}_{it}]$  be  $i$ 's expected likelihood of being elected to the legislature in  $t+1$  given  $i \notin N_t$ . Hence for  $i \notin N_{T+1}$ , the expected continuation payoff is

$$U_i(s_{iT+1} = 0) = \mathbb{P}(D_{T+1}^* \geq 0 | s_{iT+1} = 0) \pi_i \\ + \delta \mathbb{E}[\tilde{P}_{iT+1}] U_i(s_{iT+2} = 1) + \delta \left(1 - \mathbb{E}[\tilde{P}_{iT+1}]\right) U_i(s_{iT+2} = 0). \quad (16)$$

Now consider a one-shot deviation at time  $T$ . As  $i$  is not pivotal, the difference between his



equilibrium expected payoff and his deviation payoff from playing  $v_{iT} = 1$  is

$$\delta(\bar{p} - p_{iT}) [U_i(s_{iT+1} = 1) - U_i(s_{iT+1} = 0)]. \quad (17)$$

First,  $\mathbb{P}(D_t^* \geq 0 | s_{it} = 1) \geq \mathbb{P}(D_t^* \geq 0 | s_{it} = 0)$  independently of  $z_t$ , because  $\mathbb{P}(D_{it} \geq 0) \geq \sum_{\Theta_j \in \mathcal{T}} q_t(\Theta_j | \Theta_i) \mathbb{P}(D_{jt} \geq 0)$  (Assumption 1). Second,  $\mathbb{E}[P_{it}] \geq \mathbb{E}[\tilde{P}_{it}]$  by assumption (no incumbency disadvantage). Taken together, this rules out a profitable one-shot deviation.

(ii) By construction  $v_{iT} = 0$  for all  $i \in N_T$ . Since no legislator is pivotal, the argument in part (i) (for  $i$  voting against extractive policy) rules out a profitable one-shot deviation for any player.  $\square$

### Proof of Proposition 2.

For convenience, suppress time notation. Consider state  $z$  with  $j \in N$ .

Define  $A$  as the event in which  $D_i \geq 0$  for exactly  $\lceil \frac{1}{2}n \rceil - 1$  players other than  $j$ . Define  $B$  as the event in which  $D_i \geq 0$  for at least  $\lceil \frac{1}{2}n \rceil$  players other than  $j$ . The likelihood that extractive policy is passed is:

$$\mathbb{P}(x = 1 | z) = \mathbb{P}(D_j \geq 0) \mathbb{P}(A | z) + \mathbb{P}(B | z). \quad (18)$$

Define  $D_{-j}^*$  as the  $\lceil \frac{1}{2}n \rceil$ th largest value of  $D_i$  among  $i \in N_t - \{j\}$ . The likelihood that  $j$  votes for extractive policy is:

$$\mathbb{P}(v_j = 1 | z) = \mathbb{P}(D_j \geq 0) \mathbb{P}(A | z) + \mathbb{P}(D_j \geq D_{-j}^* | z) \mathbb{P}(B | z). \quad (19)$$

Replace legislator  $j$  with  $j'$  as hypothesized to create state  $z'$ . Define  $z_{-j}$  as the distribution of types among  $i \in N_t - \{j\}$ . Then:

$$\mathbb{P}(x = 1 | z) - \mathbb{P}(x = 1 | z') = [\mathbb{P}(D_j \geq 0) - \mathbb{P}(D_{j'} \geq 0)] \mathbb{P}(A | z_{-j}). \quad (20)$$

In addition:

$$\begin{aligned} \mathbb{P}(v_j = 1 | z) - \mathbb{P}(v_{j'} = 1 | z') &= [\mathbb{P}(D_j \geq 0) - \mathbb{P}(D_{j'} \geq 0)] \mathbb{P}(A | z_{-j}) \\ &\quad + [\mathbb{P}(D_j \geq D_{-j}^* | z_{-j}, B) - \mathbb{P}(D_{j'} \geq D_{-j}^* | z_{-j}, B)] \mathbb{P}(B | z_{-j}). \end{aligned} \quad (21)$$

(21) is larger than (20) if

$$\mathbb{P}(D_j \geq D_{-j}^* | z_{-j}, B) > \mathbb{P}(D_{j'} \geq D_{-j}^* | z_{-j}, B). \quad (22)$$

By hypothesis, the switch from  $j$  to  $j'$  involves the type switch  $L \rightarrow H$ , or  $h \rightarrow \ell$ , or both. Hence  $\mathbb{P}(D_j \geq d^*) > \mathbb{P}(D_{j'} \geq d^*)$  for all possible values  $d^* \geq 0$ . Therefore, (22) is satisfied.  $\square$

### Proof of Proposition 3.

For convenience, suppress time notation. It is straightforward to verify that the proof of Proposition 1 still applies to voting over extractive policy, so a voting equilibrium is part of a subgame

perfect equilibrium of the game with institutional change.

This produces an expected discounted payoff to  $i \in N_t$  in state  $n(H)$  under elections, written as

$$r + \mathbb{P}(x = 1|n(H)) \pi_i + \delta V(\theta_i, n(H)), \quad (23)$$

where  $V(\theta_i, n(H))$  is  $i$ 's (time  $t$ , date 0) expected continuation payoff in state  $n(H)$ .

The expected discounted payoff to  $i$  when permanently ending elections is  $[\pi_i + r]/(1 - \delta) - c$ . Hence, for  $i$  to vote for dissolution of the legislature:

$$\frac{\pi_i + r}{1 - \delta} - c \geq r + \mathbb{P}(x = 1|n(H)) \pi_i + \delta V(\theta_i, n(H)) \quad (24)$$

$$c \leq \frac{\pi_i + r}{1 - \delta} - r - \mathbb{P}(x = 1|n(H)) \pi_i - \delta V(\theta_i, n(H)) \quad (25)$$

$$\equiv c(\theta_i, n(H)). \quad (26)$$

Let the threshold in the statement of the proposition be  $\underline{c} = c(L, 0)$ . Hence (26) establishes part (i): dissolution occurs in the initial state  $n(H) = 0$  if and only if  $c \leq \underline{c}$ .

Part (ii) follows immediately from (26).

To establish part (iii), note that, because of uniform random replacement of types under attrition, the type distribution hits each state  $n(H) \in \{0, 1, \dots, n\}$  in finite time with probability one.

W.l.o.g. assume  $n$  is odd. From the initial state  $n(H) = 0$  up until  $n(H) \geq \lceil \frac{1}{2}n \rceil - 1$ , there is a majority of  $L$  type legislators, who must vote for dissolution for it to pass:  $c \leq c(L, n(H))$ . The payoff from elections to a given  $L$  type  $i$  is strictly decreasing in  $n(H)$ , because (1) the likelihood of extractive policy being passed is strictly decreasing (Proposition A1) and (2) the likelihood  $i$  has to vote for extractive policy is strictly increasing. Hence  $c(L, n(H))$  is strictly increasing along this interval.

From  $n(H)$  equals  $\lceil \frac{1}{2}n \rceil$  to  $n$ ,  $H$  types are in the majority and must vote for dissolution for it to pass:  $c \leq c(H, n(H))$ . As with  $L$  types, the payoff from elections to a given  $H$  type  $i$  is strictly decreasing along this interval, and hence  $c(H, n(H))$  is strictly increasing.

Therefore, the maximum cost  $c$  for which dissolution occurs is:

$$\bar{c} \equiv \max \left\{ c(L, \lceil \frac{1}{2}n \rceil - 1), c(H, n) \right\}. \quad (27)$$

We have just established that  $c(L, \lceil \frac{1}{2}n \rceil - 1) > c(L, 0) = \underline{c}$ . Hence  $\bar{c} > \underline{c}$ . This establishes part (ii) and indeed the proposition.  $\square$

**Online Appendix**

**to**

**“Elite Identity and Political Accountability:  
A Tale of Ten Islands”**

## Online Appendix A Online Mathematical Appendix

### Online Appendix A.1 Determination of Economic Rents

We now describe an economy resembling the Caribbean setting in which the ordering of economic rents in (1) holds, with  $h$  types being planters and  $\ell$  types being merchants.

There are a finite number of planters  $n_P$  and merchants  $n_M$ , as well as a citizenry/workforce which is a continuum with unit mass. All agents are risk neutral.

Plantation production uses labour inputs and exhibits constant returns to scale. Each worker hired produces output of  $\lambda > 0$  units of sugar. Sugar is entirely exported at the price prevailing on international markets, which we normalize to one. Planters collude in setting the wage  $w$  to maximize planter profits. In doing so, they are constrained by a worker's outside option of becoming a smallholder. This option is worth  $\tau(x)y$  to a worker, where  $y$  is determined by an independent draw from the distribution  $U(0, 1)$  and  $\tau(1) < \tau(0)$  so that the extractive policy makes each worker's outside option less attractive (and thereby depresses wages). In the Caribbean, reducing workers' outside options was the primary way in which wages could be reduced. One reason was because London abolitionists kept a watchful eye on labour practices on the plantations themselves. Another reason was that smallholding truly was the relevant alternative to plantation labour so that wages were set at that margin as opposed to the standard assumption of wages being set at the margin of labour productivities in two-wage paying sectors. See [Dippel, Greif, and Trefler \(2018\)](#).

The profits of planters and plantation workers are spent entirely on a good which is imported by merchants. Workers who exercise their outside option and become smallholders engage in subsistence production. They exit the formal economy and do not purchase goods from merchants. Merchants import the consumption good at cost  $c$  and sell the good at price  $p > c$ , which is the cost to non-merchants of importing the good.

Let us now solve for the equilibrium profits of planters and merchants. To preserve symmetry within each occupational class, we assume that (1) workers are evenly distributed among planters and (2) sales to planters and workers are evenly distributed among merchants.

A worker will accept a wage  $w$  if  $w > \tau(x)y$  or  $y < \frac{w}{\tau(x)}$ . Hence by paying a wage of  $w$ , each planter will hire mass  $\frac{w}{n_M \tau(x)}$  of workers. Thus a wage of  $w$  yields profit of

$$\pi_P(w; x) = \frac{w}{n_P \tau(x)} (\lambda - w).$$

When planters collude in setting  $w$  to maximize planter profits, the equilibrium wage is  $w^* = \lambda/2$  yielding equilibrium profit of

$$\pi_P(x) = \frac{\lambda^2}{4n_P \tau(x)}.$$

The equilibrium revenue of merchants is the sum of sales to planters and plantation workers, which is simply equal to total planter revenue (i.e., wages are transfers between planters and plantation workers), which equals  $\frac{\lambda^2}{2n_P \tau(x)}$ . Hence the profit to each merchant is

$$\pi_M(x) = \frac{1}{n_M} \frac{p - c}{p} \frac{\lambda^2}{2\tau(x)}.$$

As  $\tau(1) < \tau(0)$ ,  $\pi_P(1) > \pi_P(0)$  and  $\pi_M(1) > \pi_M(0)$ .

In addition, planters gain more from extractive policy than merchants, i.e.,  $\pi_P(1) - \pi_P(0) > \pi_M(1) - \pi_M(0)$ , if

$$\begin{aligned}
 \frac{\lambda^2}{4n_P\tau(x)} \left[ \frac{1}{\tau(1)} - \frac{1}{\tau(0)} \right] &> \frac{1}{n_M} \frac{p-c}{p} \frac{\lambda^2}{2\tau(x)} \left[ \frac{1}{\tau(1)} - \frac{1}{\tau(0)} \right] \\
 \frac{1}{2} &> \frac{n_P}{n_M} \frac{p-c}{p} \\
 \frac{1}{2} \frac{n_M}{n_P} &> \frac{p-c}{p},
 \end{aligned} \tag{28}$$

that is the merchants' markup must be sufficiently small relative to the share of merchants.

In sum, if (28) holds, then  $\pi_P(1) - \pi_P(0) > \pi_M(1) - \pi_M(0)$ , which is the condition we impose in the paper, with planters being  $h$  types and merchants  $\ell$  types.

## Online Appendix A.2 Elite Composition and Political Outcomes

**Proposition A1** Construct state  $z'$  from state  $z$  by switching  $\theta_i = L$  to  $H$  for  $n_1$  players and switching  $\omega_i$  to  $\ell$  for  $n_2$  players, for any feasible  $(n_1, n_2)$ .

The likelihood that extractive policy is passed is lower in state  $z'$ :

$$\mathbb{P}(x_t = 1 | z) > \mathbb{P}(x_t = 1 | z').$$

**Proof of Proposition A1** Suppress time notation. In equilibrium, extractive policy is passed if and only if  $d^* \geq 0$ . Hence the likelihood that extractive policy is passed is  $\mathbb{P}(D^* \geq 0)$ .

Let  $\gamma(N, k)$  denote the set of  $k$ -subsets of  $N$ . Define

$$\Gamma(N, K) \equiv \bigcup_{k=K}^n \gamma(N, k),$$

with typical member  $A$ . Then

$$\mathbb{P}(D^* \geq 0) = \sum_{A \in \Gamma(N, \lceil \frac{1}{2}n \rceil)} \prod_{j \in A} \mathbb{P}(D_j \geq 0) \prod_{j' \notin A} \mathbb{P}(D_{j'} < 0). \tag{29}$$

Note that the following statements are equivalent:

$$\begin{aligned}
 D_j &\geq 0 \\
 \pi_j - \frac{\delta}{1-\delta} (\bar{p} - P_j) (\pi_j + r) &\geq 0 \\
 \bar{p} - \frac{1-\delta}{\delta} \frac{\pi_j}{\pi_j + r} &\leq P_j.
 \end{aligned} \tag{30}$$

Define

$$\Delta_j \equiv \bar{p} - \frac{1-\delta}{\delta} \frac{\pi_j}{\pi_j + r}, \tag{31}$$

which is less than  $\bar{p}$  and positive due to Assumption 2. Hence  $\mathbb{P}(D_j \geq 0) = 1 - F_{\theta_j}(\Delta_j) \in (0, 1)$ . (29) can then be reexpressed as

$$\mathbb{P}(D^* \geq 0) = \sum_{A \in \Gamma(N, \lceil \frac{1}{2}n \rceil)} \prod_{j \in A} [1 - F_{\theta_j}(\Delta_j)] \prod_{j \in N-A} F_{\theta_j}(\Delta_j) \quad (32)$$

$$\begin{aligned} &= \sum_{A \in \Gamma(N - \{i\}, \lceil \frac{1}{2}n \rceil - 1)} [1 - F_{\theta_i}(\Delta_i)] \prod_{j \in A} [1 - F_{\theta_j}(\Delta_j)] \prod_{j \in N-A} F_{\theta_j}(\Delta_j) \\ &\quad + \sum_{A' \in \Gamma(N - \{i\}, \lceil \frac{1}{2}n \rceil)} F_{\theta_i}(\Delta_i) \prod_{j \in A'} [1 - F_{\theta_j}(\Delta_j)] \prod_{j \in N-A'} F_{\theta_j}(\Delta_j) \end{aligned} \quad (33)$$

$$\begin{aligned} &= -F_{\theta_i}(\Delta_i) \sum_{A \in \Gamma(N - \{i\}, \lceil \frac{1}{2}n \rceil - 1)} \prod_{j \in A} [1 - F_{\theta_j}(\Delta_j)] \prod_{j \in N-A} F_{\theta_j}(\Delta_j) \\ &\quad + \sum_{A' \in \Gamma(N - \{i\}, \lceil \frac{1}{2}n \rceil - 1)} \prod_{j \in A'} [1 - F_{\theta_j}(\Delta_j)] \prod_{j \in N-A'} F_{\theta_j}(\Delta_j). \end{aligned} \quad (34)$$

Now replace  $i$  with  $i'$  such that  $\theta_i = L$ ,  $\theta_{i'} = H$  and  $\omega_i = \omega_{i'}$  as hypothesized. By (34), the difference in probabilities is

$$\mathbb{P}(D^* \geq 0 | \theta_i = L) - \mathbb{P}(D^* \geq 0 | \theta_{i'} = H) \propto F_L(\Delta_i) - F_H(\Delta_{i'}). \quad (35)$$

As  $\omega_i = \omega_{i'}$ ,  $\Delta_i = \Delta_{i'}$ . In addition,  $F_H(\Delta) > F_L(\Delta)$  for all  $\Delta \in (0, \bar{p})$  by assumption. Hence (35) is negative.

Similarly replacing  $i$  with  $i'$  such that  $\omega_i = h$ ,  $\omega_{i'} = \ell$  and  $\theta_i = \theta_{i'}$  as hypothesized yields

$$\mathbb{P}(D^* \geq 0 | \omega_i = \ell) - \mathbb{P}(D^* \geq 0 | \omega_{i'} = h) \propto F_{\theta_i}(\Delta_i) - F_{\theta_i}(\Delta_{i'}). \quad (36)$$

$\Delta'_i > \Delta_i$ , because  $\pi(1, h) > \pi(1, \ell)$ . Hence (36) is negative as  $F$  is strictly increasing.

Iterating this procedure establishes the proposition.  $\square$

## Online Appendix B Measuring Legislator Types

The secondary sources that we consulted were, for each island separately:

1. for Jamaica: [Heuman \(1981\)](#) and [Holt \(1991\)](#)
2. for Antigua: [Oliver \(1896\)](#), [Lowes \(1994\)](#), [Lowes \(1995\)](#), [Dyde \(2000\)](#) and [Lightfoot \(2007\)](#)
3. for Barbados: [Schomburgk \(1848\)](#), [Hoyos \(1978\)](#) and [Beckles \(2006\)](#)
4. for Dominica: [Trouillot \(1988\)](#), [Honychurch \(1984\)](#) and [Baker \(1994\)](#)
5. for Grenada: [Brizan \(1984\)](#) and [Cox \(2007\)](#)
6. for Montserrat: [Davy \(1854\)](#), [Fergus \(1994\)](#), and [Berleant-Schiller \(1995\)](#)
7. for St. Kitts: [Britain \(1840, p.94-96\)](#), [Hall \(1971\)](#) and [Dyde \(2005\)](#)
8. for Nevis: [Iles \(1871\)](#), [Hall \(1971\)](#) and [Olwig \(2005\)](#)
9. for St. Vincent: [Sheppard \(1831\)](#), [West Indies Royal Commission \(1884, p.101-126\)](#), [Smith \(2009\)](#) and [Smith and Forster \(2013\)](#)
10. for Tobago: [Craig-James \(2000\)](#)

Elite members' racial identity was primarily determined based on the above sources, as well as on whether a family was listed in the 1820s *Slave Registries*, or in the *Emancipation Compensation Tables* in 1835. For the new elite planters emerging in the post-Emancipation period, we perused the distinct island-specific plantation surveys in [Online Appendix Table 1](#).

To assign each legislator one of the four group labels, our starting point were plantation ownership records. Before emancipation, all planters were white. In a first step, we therefore coded legislators that belonged to families that were pre-Emancipation plantation owners as 'white planters.' Before Emancipation, plantation owners were recorded in the *Slave Registries* in the 1820s and then again in the *Emancipation Compensation Tables* in 1835.<sup>45</sup> Most families that appeared in the assemblies before 1838 were also recorded as plantation owners, but if they were not we coded them as white merchants. For legislators whose families first appeared after Emancipation we consulted post-Emancipation plantation surveys to establish if they were planters or merchants, and we consulted an extensive list of island-specific social and political histories to establish whether they were white or not. Given the salience of race as a feature of Caribbean history, these island-specific accounts are usually quite explicit in this regard. The historical accounts almost never contradicted the coding based on pre-Emancipation plantation ownership records, except in rare cases of shared last names. They were essential for establishing the social type of legislators whose families' names had not appeared anywhere before Emancipation, particularly because there was a substantial number of white planters in the data that first appeared after Emancipation, apparently mostly 'estate attorneys' that managed the plantations of older established planter families.

Despite the wealth of information we collected, we still had to make some judgement calls on some individuals in islands where the social histories and records were less extensive and detailed

<sup>45</sup> From 1813 on, the Crown required colonies to register all slaves. Most colonies have three iterations of the *slave registries*, but each new iteration simply updated the previous for births and deaths. When England abolished slavery, it set aside money to compensate slave owners for their loss. The disbursement of that money was recorded in the *Compensation Tables*. We digitized the *Slave Registries* ourselves, while the *Compensation Tables* data had been digitized by a research project at University College London; all 30,308 claimants can be viewed on consecutive url's running from <http://www.ucl.ac.uk/lbs/claim/view/1> to [.../30308](http://www.ucl.ac.uk/lbs/claim/view/30308).

than in Jamaica. Importantly, however, the thrust of our empirical analysis, especially on the key predictions on roll-call voting behavior, is based on Jamaican data. Jamaica, being the biggest and most important of the islands, had the richest records so that there was no ambiguity in measuring elite types.



Table Online Appendix Table 1: Data Sources for Plantation Surveys

Antigua	1817	Slave Registries - Antigua	Montserrat	1835	Compensation Tables
Antigua	1829	Johnson (1830), A Descriptive Account of Antigua	Montserrat	1848	House of Commons Papers 1847-48 (399), p.116-118 <sup>e</sup>
Antigua	1835	Compensation Tables	Montserrat	1858	House of Commons Papers 1857-58 [2403], p.99-101 <sup>c</sup>
Antigua	1843	Hart, the 1843 Antigua Almanac & Registry	Nevis	1817	Slave Registries
Antigua	1851	The 1852 Antigua Almanac	Nevis	1835	Compensation Tables
Antigua	1858	House of Commons Papers 1857-58 [2403], p.74-77 <sup>c</sup>	Nevis	1878	The 1879 Leeward Islands Almanac
Antigua	1878	The 1879 Leeward Islands Almanac	Nevis	1897	House of Commons Papers 1898 [C.8669], p.229-232 <sup>b</sup>
Antigua	1891	Hall (1971), Five of the Leewards, Appendix A	St. Lucia	1852	The 1852 St. Lucia Almanac
Barbados	1817	Slave Registries - Barbados	St. Lucia	1897	House of Commons Papers 1898 [C.8669], p.56-57 <sup>b</sup>
Barbados	1835	Compensation Tables	St. Kitts	1835	Compensation Tables
Barbados	1848	Barbados Almanac for 1848	St. Kitts	1847	House of Commons Papers 1847-48 (245), p.121-124 <sup>d</sup>
Barbados	1854	Barbados Almanac for 1854	St. Kitts	1850	The 1850 St. Christophers Almanac
Barbados	1861	Barbados Almanac for 1861	St. Kitts	1878	The 1879 Leeward Islands Almanac
Barbados	1865	Barbados Almanac for 1865	St. Kitts	1897	House of Commons Papers 1898 [C.8669], p.229-232 <sup>b</sup>
Barbados	1870	Barbados Almanac for 1870	St. Vincent	1817	Slave Registries - St. Vincent
Barbados	1898	Barbados Almanac for 1898	St. Vincent	1827	Shephard (1831), Historical Account of St. Vincent, T.6
Dominica	1817	Slave Registries - Dominica	St. Vincent	1831	Slave Registries - St. Vincent
Dominica	1835	Compensation Tables	St. Vincent	1835	Compensation Tables
Dominica	1878	The 1879 Leeward Islands Almanac	Tobago	1819	Slave Registries - Tobago
Grenada	1817	Slave Registries - Grenada	Tobago	1832	Woodcock (1867), A History of Tobago, Appendix
Grenada	1835	Compensation Tables	Tobago	1835	Compensation Tables
Grenada	1849	House of Commons Papers 1849 [1126], p.180-181 <sup>s</sup>	Tobago	1847	House of Commons Papers 1847 [869], p.32-33 <sup>a</sup>
Grenada	1867	The 1867 Grenada Almanac	Tobago	1862	Woodcock (1867), A History of Tobago, Appendix
Guyana	1833	House of Commons Papers 1833 (700), p.4-11 <sup>f</sup>	Tobago	1881	Craig-James (2008), Tables 5.9-5.11
Guyana	1838	House of Commons Papers 1847 [869], p.94-98 <sup>a</sup>	Tobago	1894	The Trinidad Almanac 1894
Guyana	1846	House of Commons Papers 1847 [869], p.94-98 <sup>a</sup>	Trinidad	1813	Slave Registries - Trinidad
Guyana	1860	The Guyana Almanac 1860	Trinidad	1835	Compensation Tables
Guyana	1879	The Guyana Almanac 1879	Trinidad	1882	The Trinidad Almanac 1882
Jamaica	1829	The 1829 Jamaica Almanac	Trinidad	1888	The Trinidad Almanac 1888
Jamaica	1835	Compensation Tables	Trinidad	1894	The Trinidad Almanac 1894
Jamaica	1840	The 1840 Jamaica Almanac			

Notes: House of Commons Parliamentary Papers: (a) "1847 [869] The reports made for the year 1846 to the Secretary of State having the Department of the Colonies. Transmitted with the blue books for the year 1846." (b) "1898 [C.8669] West India Royal commission. Report of the West India Royal commission. Appendix C., vol. III., containing parts VI. to XIII. Proceedings, evidence, and documents relating to the Windward Islands, the Leeward Islands, and Jamaica." (c) "1857-58 [2403] The reports made for the year 1856 to the Secretary of State having the Department of the Colonies. Transmitted with the blue books for the year 1856." (d) "1847-48 (245) Seventh report from the Select Committee on Sugar and Coffee Planting; together with the minutes of evidence, and appendix." (e) "1847-48 (399) West India colonies and Mauritius. Returns to two addresses of the Honourable the House of Commons, dated respectively 8 & 31 May 1848." (f) "1833 (700) Slave population. (Slave registries.) Return to an address to His Majesty, dated 29 July 1833." (g) "1849 [1126] The reports made for the year 1848 to the Secretary of State having the Department of the Colonies. Transmitted with the blue books for the year 1848."

Table Online Appendix Table 2: The Parishes in the Ten Islands

<u><i>Jamaica</i></u>	<u><i>Antigua</i></u>	<u><i>Barbados</i></u>	<u><i>St. Kitts</i></u>
Clarendon	Belfast	Bridgetown	Anguilla
Hanover	Dickensons Bay	Christ Church	Christ Church
Kingston	Five Islands	St Andrew	St Anne
Manchester	New North Sound	St George	St George
Metcalfe	Nonsuch	St James	St John Capisterre
Port Royal	Old North Sound	St John	St Mary
Portland	Old Road	St Joseph	St Paul
St Andrew	Popeshead	St Lucy	St Peter
St Anne	Rendezvous Bay	St Michael	St Thomas
St Catherine	St John	St Peter	Trinity
St David	Town of St John	St Philip	
St Dorothy	Willoughby Bay	St Thomas	<u><i>Tobago</i></u>
St Elizabeth	Town of Parham		
St George	Towns of Falmouth	<u><i>Montserrat</i></u>	St Andrew
St James	& English Harbor		St David
St John		St George	St George
St Mary	<u><i>Dominica</i></u>	St Patrick	St John
St Thomas East		St Peter	St Mary
St Thomas in Vale	St Andrew	Plymouth & Kinsale	St Patrick
Trelawny	St David	St Anthony	St Paul
Vere	St George		Town of Plymouth
Westmoreland	St John	<u><i>St. Vincent</i></u>	Town of Scarborough
	St Joseph		
<u><i>Nevis</i></u>	St Luke	Charlotte	<u><i>Grenada</i></u>
	St Mark	Grenadines	
St George	St Patrick	Kingstown	Carriacou
St James	St Paul	St Andrew	St Andrew & St David
St John	St Peter	St David	St George & St John
St Paul	Town of Portsmouth	St George	St Mark & St Patrick
St Thomas	Town of Roseau	St Patrick	

Notes: This table simply lists the the islands' parishes, i.e. the electoral districts returning assemblymen.

Table Online Appendix Table 3: Re-Estimating Table 2 with District Fixed Effects

Panel A. *Voting Overlap* with the White Planters: Jamaica

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ℓ(New Elite)	-5.176*** [0.001]	-6.306*** [0.000]	-5.370*** [0.006]	-6.358*** [0.001]				
ℓ(New Elite Planter)					-1.689 [0.428]	-2.850 [0.184]	-2.287 [0.405]	-3.558 [0.198]
ℓ(New Elite Merchant)					-6.987*** [0.000]	-8.069*** [0.000]	-6.762*** [0.006]	-7.581*** [0.002]
weighted year FE		Y	Y	Y		Y	Y	Y
Observations	999	999	999	999	999	999	999	999
R-squared	0.153	0.249	0.255	0.340	0.159	0.255	0.259	0.343

Panel B. *Voting Overlap* with the White Planters: Barbados & Grenada

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ℓ(New Elite)	-3.016 [0.151]	-2.650* [0.053]			-3.514** [0.019]	-3.329** [0.039]		
ℓ(New Elite Planter)			-3.040 [0.137]	-1.654 [0.359]			-2.629 [0.116]	-2.446 [0.151]
ℓ(New Elite Merchant)			-3.000 [0.339]	-3.262* [0.067]			-4.016** [0.023]	-4.025** [0.041]
island:	Barbados				Grenada			
year FE		Y		Y		Y		Y
Observations	1,064	1,064	1,064	1,064	733	733	733	733
R-squared	0.039	0.185	0.039	0.185	0.041	0.130	0.042	0.131

Notes: This table re-estimates Table 2 with district fixed effects added, resulting in a larger R squared and somewhat smaller point estimates on the coefficient of interest. *p-values* for standard errors clustered at the individual level are reported in square brackets, \*\*\*, \*\*, \* denote 1%, 5% and 10% statistical significance.

## Online Appendix C Barbados's Geography

Barbados was an outlier among the Caribbean slave societies in its geography. While all Caribbean islands shared their climatic conditions, there was large variation in geographic characteristics like elevation and soil. The typical Caribbean sugar colony was characterized by sugar-suitable coastal plains and a rugged interior that lay fallow during slavery. Barbados was the only Caribbean sugar island that combined the advantages of limestone rather than volcanic soil with a high enough elevation to protect sugar from saltwater and storm surges. The Caribbean is divided into three island chains: The Greater Antilles are large islands with mountainous interiors and coastal plains. Of these, only Jamaica was a British colony, the others are Cuba, Haiti and the Dominican Republic. Most British Caribbean colonies—Dominica, the British Virgin Islands, Grenada, Montserrat, Nevis, St. Kitts, St. Lucia, and St. Vincent—belonged to the inner chain of the Lesser Antilles, which is volcanic and mountainous. The outer chain of Lesser Antilles—Anguilla, Bahamas, Barbados, Turks and Caicos—consists of flat limestone. This limestone was more suitable for sugar cultivation because it retained water better than the volcanic land on the inner chain (Richardson, 1997, p. 147) and because sugar does not like high elevations. In Barbados, the *entire* land area was highly sugar-suitable land, and over 95% of its land was under cultivation on the eve of emancipation, compared to under 50% elsewhere in the Caribbean (Martin, 1839, p.32–102). While Barbados was not particularly unique during slavery, it was unique *after* emancipation its ability to offer extremely low wages for lack of any other options to the citizenry. Consequently, a merchant class catering to local markets did not develop, and emancipated blacks did not obtain the franchise for a lack of available land for purchase.

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