# The Control of Politicians in Divided Societies: The Politics of Fear

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## Abstract

Autocrats in many developing countries have extracted enormous personal rents from power. In addition, they have imposed inefficient policies including pervasive patronage spending. I present a model in which the presence of ethnic identities and the absence of institutionalized succession processes allow the ruler to elicit support from a sizeable share of the population despite large reductions in welfare. The fear of falling under an equally inefficient and venal ruler that favors another group is enough to discipline supporters. The model predicts extensive use of patronage, ethnic bias in taxation and spending patterns and unveils a new mechanism through which economic frictions translate into increased rent extraction by the leader. These predictions are consistent with the experiences of bad governance, ethnic bias, wasteful policies and kleptocracy in post-colonial Africa.

JEL Classification Code: D72, O17, H2

# 1 Introduction

Institutions are important determinants of economic development, as different strands of research have emphasized. Political institutions in particular, influence policy determination by placing constraints on the behavior of leaders and inducing them to take into account the well-being of their citizens. When these institutions are weak, examples abound of rulers who have been able to extract enormous rents from power in a seemingly unconstrained manner.[1] However, these rulers have also engaged in extensive redistribution of resources in surprisingly inefficient ways, which suggests the existence of constraints on the exercise of power. Specifically, they often raised revenue through costly market manipulations and then spent on inoperative bureaucracies that served as distribution channels for patronage.[2] Surprisingly, in spite of their conspicuous wealth accumulation and their mismanagement of the economy many of these leaders have enjoyed active support from sizeable shares of their impoverished populations.[3] This raises the following questions: why does any part of the population support these leaders? Why do these leaders choose to engage in wasteful patronage transfers? Why are these leaders seemingly unaccountable to their own supporters?

To answer these questions, this paper develops a simple framework to analyze political accountability when societies are ethnically divided and institutions are weak. The starting point is a political agency model in which three assumptions are maintained:

1. A Ruler needs the support of his ethnic group in an ethnically divided society

2. Ruler replacement leads to political instability and increases the likelihood of a switch of power between ethnic groups

3. Taxation can only vary by economic activity while transfers can directly target groups

Assumption 1 captures the political salience of ethnicity in these societies. Assumption 2 captures a particularity of weak institutions that is fundamental in understanding

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[1]Since this is particularly the case in Post-Colonial Sub-Saharan Africa, I will concentrate on illustrative examples from this continent. Several rulers such as Mobutu, Moi or Houphouet-Boigny have been estimated to posess personal fortunes equivalent to the total foreign debt accumulated by their countries (see Ayittey (1992) or Mbaku (2000) for an account of the extent of rent extraction).

[2]See Bates (1981), Collier and Gunning (1999) and Easterly and Levine (1997) for an account of the long list of inefficient redistributive interventions and their economic effects in Africa.

[3]In many instances large populations are easily mobilized by the regime: ethnic voting is such an example and is pervasive in the African continent. This support can also include decentralized violence against the opposition such as in Rwanda in 1994 or in contemporary Zimbabwe. Note also that some of the presumed authoritarian leaders, such as Benin's Kérékou, have been reelected when multiparty elections have been introduced.

accountability. These two assumptions together imply the following result: the ruler can enjoy support from his ethnic followers despite the fact that he is extracting resources from them. In equilibrium, a leader steals resources from his supporter group, but extracts even more from the opposition group. If the group in power decides to support the leader, the status quo is maintained with high probability. However, if they decide to oust him they face a chaotic succession process in which they cannot guarantee whether the next leader will belong to their group. Since their predicament under the leadership of a politician from another group is worse than under their own ethnic ruler, they are forced to provide support to the current kleptocrat.[4] I call this mechanism the Politics of Fear: the fear of falling under an equally inefficient and venal ruler that favors another group is sufficient for disciplining supporters.

Assumption 3 captures the fact that in poor countries income taxes have historically been unfeasible due to bureaucratic incapacity. As a consequence, rulers typically resort to indirect taxation that can only vary by economic activity. Hence, groups can only be discriminated by taxation to the extent that they are economically specialized.[5] As long as groups retain the ability of choosing economic activities, taxation must move in parallel across groups. The three assumptions together provide two additional insights.

First, the fear of exclusion spreads across groups and compounds the ability of all leaders to extract resources. For simplicity, suppose that there is no public spending and group $A$ is vulnerable to high taxes due to its specialization in a particular activity while group $B$ can perfectly arbitrage taxes across activities. Since group $B$ cannot be discriminated against, one would be tempted to conclude that $B$ leaders are not able to extract resources from their followers. However, since $A$ members know that a $B$ leader would strongly discriminate against them, $A$ leaders are able to extract large rents from their supporters. As noted above, this means that an $A$ leader will be able to heavily tax *both* groups. This implies that $B$ citizens also fear an $A$ leader that cannot be reigned in by his $A$ supporters. As a consequence, when a $B$ leader captures power, his supporters allow him to steal from them even though they cannot be discriminated against in taxation.

Second, the model provides a rationale for the inefficient use of public funds as resources for patronage to the ethnic kin of the leader. As discussed above, when the ruler wants to increase rent extraction, he needs to increase taxes in parallel for both groups. This is constrained by the need to provide his group with enough utility to keep its sup-

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[4]The opposition leader would like to promise to current supporters that he will not expropriate from them. However, such promises are not credible in this institutional environment.

[5]For instance, a comparative advantage in a particular activity provides such specialization. Indeed, the fact that there is stratification in economic activities across ethnic groups has long been noticed. In a classic study, Horowitz (1985) writes "Cementing the ethnic division of labor is the preeminent role of ascriptive ties in economic relations in the developing world".

port. This constraint can be satisfied by redistributing targeted patronage to his group.[6] For every unit of patronage he supplies to his supporters, he can tax *both* his supporters (who are left indifferent) *and* his opponents. Hence, patronage provides returns to the ruler above the utility of those who receive it. This implies that patronage is provided to the point where the marginal return to the receiver is well below the marginal cost of public funds.

This framework accounts for the existence of regimes in which weak leaders (that need a sizeable share of the population to defend the regime) are able to extract enormous resources from the economy and their own supporters. It is also consistent with excess public employment, ethnic bias in patronage, regional bias in expenditure targeting, and the coexistence of heavy rates of taxation and inefficient subsidization to supporter groups that is typical of kleptocracies. Moreover, the model links economic ethnic segmentation and specialization with the venality of rulers.

Most qualitative analyses of weakly institutionalized regimes agree that in these countries, the arrangements described in the constitution are systematically ignored and informalism prevails in every political transaction.[7] Following this, Assumptions 1 and 2 describe an institutional setting that is different from a textbook democracy. In a democratic election citizens express their approval of the incumbent government through voting. If they disapprove, they designate its replacement with the same means. These two functions are separated in the model. A dictator needs a basis of support for his rule which means that this basis may cause his downfall if alienated. However, unlike a democracy, when institutions are weak the process of replacing a leader is typically chaotic and lies beyond the control of the citizenry.

As a consequence of this succession frictions, the relative status of the group is contingent on the survival of the ruler. In their analysis of personal rule regimes in Africa, Jackson and Rosberg (1982) write:

> "a succession [...] alters at least some of the important relationships and standings among leaders and factions-for example, the standing of big men and the clan and ethnic communities they represent" and "[t]he ultimate uncertainty in a system of personal rule lies in the key point of vulnerability: the ruler. [...] If he falls, his relatives, friends, lieutenants, clients and followers

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[6] The role of ethnicity as an exclusion device is already present in Bates (1983) and Caselli and Coleman (2003). As opposed to taxation, patronage can easily be ethnically targeted by biasing the allocation of funds and bureaucratic posts and using ethnic identification as a discrimination device.

[7] See Bratton and van der Walle (1997), Jackson and Rosberg (1982) and Migdal (1988) among many others. See also Herbst (2000) and Cooper (1999) for a discussion on the historical roots of this weak institutionalization.

also may fall, and the ensuing political disruption may threaten the political peace."

Hence, ousting a leader initiates an uncertain process that involves potential change in the relative status of different groups. The cases of Kenya in 1978 or Cameroon in 1982 are good examples of successions that eventually lead to important switches in the standing of different ethnic groups.[8]

Acemoglu, Robinson and Verdier (2004) have emphasized the importance of weak institutions in explaining the existence of kleptocracies. Their analysis shows that weak institutions allow leaders to exacerbate the collective action problem of society. My approach abstracts from collective action and concentrates on the instability of succession rules, thereby unveiling a different mechanism. In addition to tackling the weakness of political accountability, my model explains why some exploited groups explicitly support kleptocratic leaders and also accounts for their inefficient provision of patronage.

Acemoglu and Robinson (2001), Ellman and Wantchekon (2000), La Ferrara and Bates (2001), Robinson and Verdier (2005), and Robinson and Torvik (2005) present models of electoral competition enriched to capture diverse characteristics of the political game in weakly institutionalized polities. In this literature, the presence of ethnic groups, the absence of commitment technology or the capacity to resort to violence are introduced to explain inefficient policy choices. My model shows that these insights are also applicable to a political agency approach on weak institutions. Additionally, it explains why internal competition within the ruling group cannot dissipate kleptocratic rents.

Ferejohn (1986) and Myerson (1993) present models in which politicians favor a subset of ex-ante homogeneous citizens to gain reelection. In this work, citizens may or may not be included in the favored set, which in the former paper creates accountability problems and in the latter generates asymmetric allocations of patronage. The nature of my mechanism is different: a ruler is tied to his group, but the prospect of future exclusion forces supporters to defend the regime and to keep the leader in power. In this sense my analysis is closer to Bueno de Mesquita et al. (2003) and Iaryczower (2006) in which manipulation of the continuation values is essential to keep a supporting coalition in place.

The remainder of the paper is organized as follows. The next section presents the model and the equilibrium concept that will be used. Section III analyzes the model, describes

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[8]At the death of Kenyatta in 1978, Daniel arap Moi reaches power. Kenyatta belonged to the Kikuyu ethnic group that dominated politics in Kenya since independence. After the transition, the balance of power moved to the Kalenjin group to which Moi belongs. A similar pattern can be found in the transition from Ahidjo to Biya in Cameroon and elsewhere in Africa.

the equilibrium and shows the comparative statics. Section IV offers an interpretation of the findings. Finally, the last section concludes.

# 2 The model

## 2.1 The Environment

Consider an infinitely repeated economy populated by a continuum of citizens of mass 1. Citizens belong to one of two ethnic groups, $A$ and $B$. The size of group $A$ is $\pi^A$. There are two economic activities, denoted $a$ and $b$. A group is defined by two distinct sets of characteristics. First, there are some ascriptive characteristics such as skin color (maybe geographical distribution or language) that are identifiable and, for simplicity, impossible to change.

Second, each group possesses a comparative advantage in a different portfolio of economic activities. A group $A$ citizen obtains $\omega^a$ per period in activity $a$. Should she decide to take activity $b$ she would earn $\omega^a - \theta^A$ per period. Symmetrically, a $B$ citizen obtains $\omega^b$ in activity $b$ and $\omega^b - \theta^B$ in activity $a$, per period. $\theta^i$ captures the extent to which a group's income is specific to a particular activity.[9] Groups decide which economic activity to take in every period. Let $z_t^i = 1$ if group $i$ does not take the activity in which it enjoys comparative advantage in period $t$. Otherwise $z_t^i = 0$.[10]

There is a state that performs two functions: it taxes economic activities and uses the proceeds to provide benefits to groups.

These benefits constitute pure patronage such as the allocation of public resources to the region of a group or the granting of lucrative bureaucratic posts (or posts in the army, police, etc.) to members of the favored group. The state is able to discriminate across recipients of public expenditure thanks to the ascriptive characteristics of groups.

Taxes are activity specific because in particularly poor developing countries as in Africa, the absence of a competent bureaucracy forces governments to raise their revenue from indirect taxation.[11] Thus note that the fundamental difference between expenditures

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[9] For example, a group that is specialized in cash-crops, especially tree crops, has no way to transfer its planted capital to another activity. The same is true for groups that rely on ethnic networks to perform particular activities. Also, $\theta^i$ can capture the degree to which specialized knowledge is useless in another sector. Finally, a small value of $\theta^i$ also captures the possibility that ethnic groups are not segmented in different economic activities. For simplicity, in this article I take $\theta^A$ and $\theta^B$ as given. However, as an anonymous referee suggested, such frictions may be created by the ruler. The Apartheid regime in South Africa provides such an example.

[10] To avoid collective action issues, which are not the focus of the model, I treat groups as unitary actors. This is natural in this model because of the absence of heterogeneity and imperfect information.

[11] For instance, the use of Marketing Boards for agricultural products and other manipulations of the pricing system have been pervasive. Bates (1981) provides a detailed account of these practices. In

and taxation is that patronage can be perfectly targeted to specific groups.

At any point in time, one ethnic group has control of the government. However, real power is exercised by a narrow elite inside the group, and I will call it the Leader. Denote by $L^i$ the leader if he is from group $i$. In the remainder of the paper, I refer to the group to which the leader belongs as the "supporter" group, and the other is called "excluded" group for reasons that will become apparent. Each group has an unlimited supply of identical leaders.

Denote $\tau^{ik}$ the tax level that a leader of group $i$ levies on activity $k$. Similarly, let $\eta^{ij}$ be the amount that a leader of group $i$ spends on patronage for group $j$, where $i, j \in \{A, B\}$ and $k \in \{a, b\}$. The amount $\eta^{ij}$ provides utility $R(\eta^{ij})$ to group $j$ with $R' > 0$, $R'(0) > 1$, $R'' < 0$ and $R(0) = 0$. Group $-j$ receives no utility from $\eta^{ij}$.

This economy has two states, $S_t \in \{A, B\}$, denoting whether power is captured by group $A$ or group $B$ in period $t$. The instantaneous utility of a citizen of group $A$ in state $S$ (the expression for $B$ is symmetric) is thus:

$$C(S, z^A) = (1 - z^A)(\omega^A - \tau^{Sa}) + z^A(\omega^A - \theta^A - \tau^{Sb}) + R(\eta^{SA})$$

where time subscripts have been omitted for notational simplicity. Both groups have identical preferences represented by $\mathbf{E} \sum_{t=0}^{\infty} \delta^t C_t^j$, where $C_t^j$ is the instantaneous utility of group $j$ at time $t$, and $\delta$ is the discount factor.

Even though the leader belongs to group $S_t$, he has self-serving interests. In particular, he wants to maximize the funds that he can divert for his own uses. A leader of group $A$ obtains instantaneous utility (the expression for $B$ is symmetric) as long as he is in power:

$$U^A = \tau^{Aa} \left( \pi^A(1 - z^A) + (1 - \pi^A)z^B \right) + \tau^{Ab} \left( \pi^A z^A + (1 - \pi^A)(1 - z^B) \right) - \pi^A \eta^{AA} - (1 - \pi^A)\eta^{AB}$$

and discounts future payoffs by $\delta$. When a leader is not in power, he obtains 0 utility per period.

The weakness of institutions, the importance of ethnic links and the succession frictions are captured in the model by the following assumptions. First, assume that whenever the incumbent leader retains the support of his kin group, he maintains his position with probability $\bar{\gamma}^A$. With probability $1 - \bar{\gamma}^A$ group $B$ is able to dislodge the leader from power and install a $B$ leader even against a united $A$ group.

Second, if the supporters of an incumbent leader decide to subvert the authority of

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addition, Bates (1989) shows that these manipulations are inefficient to the point of contributing to famines.

their leader and want to oust him from power, they succeed automatically, as a leader with no basis of support cannot survive. Hence the relevant constraint on the interests of the leader is the need to keep the support of his group. This is the sense in which the position of the leader is weak: he needs the active support of a sizeable share of the population to maintain power.

Third, when a leader is ousted from power by his own supporters the state does not perform its functions for that period. Moreover, the group that is not in power will find it easier in this turmoil to grab power and seat a leader from its ranks. Thus, I assume that the status of the group in power will change with probability $1 - \underline{\gamma}^S$. Hence, $\underline{\gamma}^S$ captures the degree to which the grip on power of group $S$ is solid independently of the personality of the ruler. In other words, $\bar{\gamma}^S - \underline{\gamma}^S > 0$ captures the importance of "Personal Rule" since it measures the increased stability that retaining the incumbent buys to his supporters. In essence this assumption means that stability is good to maintain power.

The timing of each stage game, given state $S_t$, is the following:

1. Leader $L^S$ announces the policy vector $P_t = \{\tau_t^{Sa}, \tau_t^{Sb}, \eta_t^{SA}, \eta_t^{SB}\}$

2. The citizens of group $S_t$ decide to support, $s_t = 1$ or not, $s_t = 0$

3. All groups decide to switch activities or not, $z_t^A, z_t^B \in \{0, 1\}$

4. If $s_t = 1$, $P_t$ is implemented and payoffs are realized. Next period starts with $S_{t+1} = S_t$ with probability $\bar{\gamma}^S$ and the state switches with probability $1 - \bar{\gamma}^S$.

5. If $s_t = 0$, the leader is ousted immediately and the "revolt" vector $P_r = \{0, 0, 0, 0\}$ is implemented. With probability $1 - \underline{\gamma}^S$, group $S$ loses power and the next period starts with $S_{t+1} = -S_t$. Otherwise, the next period starts with a new leader from group $S$.

There are a number of features of the model that are worth stressing. First, note that collective action within a group is not an issue in this model. The focus of the argument is on the forces that allow a weak leader to appropriate rents and keep power by securing the support of a fraction of the population. Adding heterogeneity and a collective action problem would only help the current leader to steal even more, because he would find it easier to disrupt coordination. Second, and in the same spirit, I do not allow the leader access to any repression instrument: if he loses the support of his group, he is replaced at no explicit cost. Third, it is important to note that the excluded group in this model always tries to unseat the incumbent. This is a simplifying assumption introduced because the focus of the analysis is in explaining why the ethnic base supports a kleptocratic ruler.

However, it does not capture cases in which the leader is forced to subsidize the opposition group because support from his own group is not enough.

## 2.2  Definition of Equilibrium

The equilibrium concept to be used is pure strategy Markov Perfect Equilibrium (MPE). In this type of equilibria, strategies can only be contingent on the payoff-relevant state of the world and the prior actions taken within the same period.

The state space of this economy is $S = \{A, B\}$, denoting whether power is captured by group $A$ or group $B$ at the beginning of period $t$. Denote the state at each period by $S_t$. At any point in time, the leader in power is denoted by $L^S$. The strategy of the current leader $L^A$ is denoted $P^A$ and is a four-tuple $\{\tau^{Aa}, \tau^{Ab}, \eta^{AA}, \eta^{AB}\} \in \mathbb{R}_+^4$. The symmetric definition holds for the strategies of leaders $L^B$.

The strategy of group $A$ is denoted $\sigma^A(S, P^S)$ and depends on both the state of political capture and the policy vector proposed by the leader. It determines two actions, $\{s^A, z^A\}$. If $S_t = A$, then $s^A \in \{0, 1\}$. Therefore, if the leader is from group $A$, his group can decide to give him support or to subvert his authority. On the other hand, if $S_t = B$, $s^A = \emptyset$. $z^A \in \{0, 1\}$ independently of the state. The symmetric definition holds for the strategy space of citizens of group $B$.

State transitions work as follows: whenever $s_t^S = 1$, $S_{t+1} = S_t$ with probability $\bar{\gamma}^S$. If $s_t^S = 0$, then $S_{t+1} = S_t$ with probability $\underline{\gamma}^S$. Denote this transition function $T(\sigma^S, S)$.

Consider the following set of Bellman equations:

$$V^A(S) = \max_{\sigma^A}\{C^A(\tilde{P}^S, \sigma^A(S, P^S), \tilde{\sigma}^B) + \delta \sum_S V^A(S')T(\sigma^S, S)\} \tag{1}$$

$$V^B(S) = \max_{\sigma^B}\{C^B(\tilde{P}^S, \sigma^B(S, P^S), \tilde{\sigma}^A) + \delta \sum_S V^B(S')T(\sigma^S, S)\} \tag{2}$$

$$W^A(A) = \max_{P^A}\{U^A(P^A, \tilde{\sigma}^A, \tilde{\sigma}^B) + \delta \sum_S W^A(S')T(\tilde{\sigma}^A(A, P^A), A)\} \tag{3}$$

$$W^B(B) = \max_{P^B}\{U^B(P^B, \tilde{\sigma}^B, \tilde{\sigma}^A) + \delta \sum_S W^B(S')T(\tilde{\sigma}^B(B, P^B), B)\} \tag{4}$$

where $C^j$ denotes the consumption of citizen $j$ as a function of the strategies of the leader in power and both sets of citizens. $V^j(S)$ denotes the value function for citizen $j$ in state $S$. $W^i(S)$ denotes the value function for leader from group $i$ in state $S$. By assumption, $W^A(B) = W^B(A) = 0$. A pure strategy MPE for this game is a combination of strategies $\{\tilde{P}^A, \tilde{P}^B, \tilde{\sigma}^A, \tilde{\sigma}^B\}$ such that $\tilde{\sigma}^A$ solves (1), $\tilde{\sigma}^B$ solves (2), $\tilde{P}^A$ solves (3) and $\tilde{P}^B$ solves (4). In other words, all four strategies are best responses to the other three for all possible

states.

# 3 Analysis

Assume without loss of generality that $S_t = A$. The equilibrium is characterized by backwards induction within each stage game. I examine first the decision to switch the economic activity. Take $B$ producers first. Note that the decision to switch does not affect continuation utilities, hence only the static difference in payoffs is relevant. After observing the policy vector $P_t$, they will switch sector only if the loss in wealth is smaller than the difference in taxation. Formally,

$$z_t^B = 1 \;\; \text{iff} \;\; \omega^b - \tau^{Ab} < \omega^b - \theta^B - \tau^{Aa}$$

The ruler wants to avoid this switch because it reduces revenue. Hence, this ability to switch provides an upper bound on the differential taxation that the ruler can levy on group $B$. The effective constraint on the ruler will thus be

$$\tau^{Ab} \leq \theta^B + \tau^{Aa} \tag{5}$$

The equivalent restriction for group $A$ is then

$$\tau^{Aa} \leq \theta^A + \tau^{Ab} \tag{6}$$

Obviously, both restrictions cannot be binding at the same time.

I examine now the decision to support by $A$ members. Upon observing $P^A$, if they support ($s_t = 1$), $A$ supporters obtain:

$$\omega^a - \tau^{Aa} + R(\eta^{AA}) + \delta\bar{\gamma}^A V^A(A) + \delta(1 - \bar{\gamma}^A)V^A(B)$$

Alternatively, if they withdraw their support ($s_t = 0$) they expect:

$$\omega^a + \delta\underline{\gamma}^A V^A(A) + \delta(1 - \underline{\gamma}^A)V^A(B)$$

Hence the support condition reduces to:

$$\tau^{Aa} - R(\eta^{AA}) \leq \delta(\bar{\gamma}^A - \underline{\gamma}^A)(V^A(A) - V^A(B)) \tag{7}$$

Note that the ruler will always satisfy this constraint by subgame perfection. Not satis-

fying it gives him no benefit because in the period he is thrown out he already receives 0 utility (and he obtains 0 forever after). Condition (7) embodies the "Politics of Fear" mechanism. Note that when the left hand side is positive, the ruler is actually *reducing* the utility of his supporters. Two elements are needed for this phenomenon to occur. First, the right hand side of the condition is positive when $V^A(A) - V^A(B) > 0$, namely when the group fares worse under the leadership of another group than under a leader from their midst. This gap creates the fear that allows the ruler to extract resources from his supporters. Second, keeping power has to depend on political stability. That is why the difference in future utilities is multiplied by $(\bar{\gamma}^A - \underline{\gamma}^A)$. This captures the incumbency advantage that the group as a whole loses when it decides to replace the leader. The more the group's hold on power is dependent on the current ruler, the more he can exploit his position.[12]

For notational simplicity, and because the values will be determined in equilibrium, denote $\Phi^A = \delta(\bar{\gamma}^A - \underline{\gamma}^A)(V^A(A) - V^A(B))$. With this simplification, the problem that a ruler $L^A$ solves at the beginning of each period is the following:

$$\max_{\{\tau^{Aa}, \tau^{Ab}, \eta^{AA}, \eta^{AB}\}} \pi^A(\tau_t^{Aa} - \eta_t^{AA}) + (1 - \pi^A)(\tau_t^{Ab} - \eta_t^{AB}) + \delta\bar{\gamma}^A W^A(A) \qquad (8)$$

$$\begin{aligned}
\text{subj.to} \qquad \tau^{Ab} &\leq \theta^B + \tau^{Aa} \\
\tau^{Aa} &\leq \theta^A + \tau^{Ab} \\
\tau^{Aa} - R(\eta^{AA}) &\leq \Phi^A \\
0 &\leq \eta^{AB}
\end{aligned}$$

This program takes as given the equilibrium continuation values of the game and solves for the best policy vector that the ruler can propose given the two no switching constraints, (5) and (6), and the need to keep support from his group. Since (5) and (6) are respected, by subgame perfection there is no switching. Note that $z^A = z^B = 0$ is already taken into account in the objective function of the ruler.

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[12] This is a partial equilibrium result. Below, the full effect of $(\bar{\gamma}^A - \underline{\gamma}^A)$ and $(\bar{\gamma}^B - \underline{\gamma}^B)$ is shown to be even more important as fear amplifies across groups.

**Lemma 1** *The solution of program (8) has the following structure:*

$$\eta^{AB} = 0$$

$$R'(\eta^{AA}) = \pi^A \tag{9}$$

$$\tau^{Aa} = \Phi^A + R(\eta^{AA}) \tag{10}$$

$$\tau^{Ab} = \theta^B + \Phi^A + R(\eta^{AA}) \tag{11}$$

This lemma is proved in the appendix. This solution is intuitive once it is clear that, at the optimum, all but the second constraints of the program are binding. First, it is obvious that $\eta^{AB} = 0$. Providing patronage to the excluded group is costly and yields no benefit, since what is critical is the support from the leader's group. The third constraint is binding because it puts an upper bound to the amount of rent extraction from the leader's group. Given the amount of taxation to the supporter group, the first constraint can be read as an upper bound to the amount of taxation on the excluded group and thus it is also binding at the optimum. In intuitive terms, the ruler extracts from his group just to the point of subversion and given that, he overtaxes the excluded group to the point in which they would switch activities.

The optimal level of taxation depends on $\Phi^A$ and hence on future play, but this is not the case for optimal patronage provision. Given the technology, a social planner would provide patronage to the point where $R'(\eta^{AA}) = 1$. However, from (9) it is clear that patronage is overprovided to the supporter group. Why does the leader provide excess costly patronage to his supporters?

The answer lies in the fact that the switching constraint for group $B$ is binding. As a consequence, any increase in $\tau^{Aa}$ allows the ruler to increase $\tau^{Ab}$ on a one-to-one basis. Constraint (7) shows that increasing $R(\eta^{AA})$ and $\tau^{Aa}$ in parallel maintains the support of the group, leaving supporters indifferent. However, the ruler is not indifferent: every unit of patronage to his group costs him only $\pi^A < 1$, but it allows him to increase taxation to all groups, which means that his return is 1. As a consequence, he overprovides patronage to his followers and overtaxes both his group and his opponents. Since the disparity between $\pi^A$ and 1 is the reason for this inefficiency, this distortion is worse the narrower the basis of support of the ruler (the smaller $\pi^A$).

From (11), the excluded group is discriminated not only in terms of patronage, but also in terms of taxation. However, to say something about the level of taxation in equilibrium I need to fully solve for the dynamic equilibrium. For notational simplicity, denote $\Psi^i = \frac{\delta(\bar{\gamma}^i - \gamma^i)}{1 + \delta(1 - \bar{\gamma}^A - \bar{\gamma}^B)} \geq 0$. Proposition 1, proven in the appendix, states the result:

**Proposition 1** *This model presents a unique MPE. In equilibrium, in state $S = A$ (when $S = B$ the expressions are symmetric):*

1. $L^A$ *proposes the following policy vector* $P^{MPE}$:

$$\eta^{AA} \equiv \eta_*^A \text{ such that } R'(\eta_*^A) = \pi^A$$

$$\eta^{AB} = 0$$

$$\tau^{Aa} = \frac{\Psi^A(1 + \Psi^B)\theta^A + \Psi^A\Psi^B\theta^B}{1 + \Psi^A + \Psi^B} + \frac{\Psi^A\Psi^B R(\eta_*^A) + \Psi^A(1 + \Psi^B)R(\eta_*^B)}{1 + \Psi^A + \Psi^B} + R(\eta_*^A) \tag{12}$$

$$\tau^{Ab} = \tau^{Aa} + \theta^B$$

2. *The citizens of group $A$ support the ruler ($s^A = 1$) if he proposes $P^{MPE}$ and oust him if he proposes any other policy vector that provides less instantaneous utility.*

3. $z^A = 0$ *only if* $\tau^{Aa} \leq \theta^A + \tau^{Ab}$ *and* $z^B = 0$ *only if* $\tau^{Ab} \leq \theta^B + \tau^{Aa}$

Expression (12) clarifies the substantive forces that allow $L^A$ to extract resources from his own supporters. The gap between $\tau^{Aa}$ and $R(\eta_*^A)$ is exactly $\Phi^A$, the amount by which $L^A$ can reduce the per period utility of his followers and still retain their support. This gap consists of two additive terms that capture the two ways rulers can create a wedge in payoffs between supporters and excluded. First, is their ability to discriminate in taxation given by $\theta^A$ in the case of $L^B$ and $\theta^B$ in the case of $L^A$. Second, is their capacity to allocate patronage, which drives the second summand in (12).

Note that the equilibrium amount of $\tau^{Aa}$ depends on economic and institutional characteristics of group $B$ such as $\theta^B$ and $\Psi^B$. Expropriation from supporters is determined in general equilibrium because in this model, the fear of exclusion of one group amplifies in equilibrium and allows both types of leader to reduce the utility of their supporters.

To see this amplification mechanism, assume that we restrict the ability of rulers to provide patronage so that $R(\eta_*^B) = R(\eta_*^A) = 0$. In addition, consider a case in which $\theta^A = 0$. In this case, group $A$ should have no reason at all to fear a $L^B$. Since there is no patronage, they cannot be discriminated against in that dimension. And $\theta^A = 0$ means that they can perfectly arbitrage any threat of tax discrimination because they can switch activities at no cost. However, expression (12) shows that $A$ supporters are expropriated by their own leaders as long as $\theta^B$ is strictly positive. Why is this the case?

In such a case, $B$ citizens are discriminated against by $L^A$ because their comparative advantage leaves them vulnerable. This discrimination makes them fearful of $L^A$ and

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hence, should they capture power, $L^B$ will be able to levy high taxes on them and keep their support. However, $A$ citizens will also suffer these same high taxes under $L^B$. $\theta^A = 0$ implies that they cannot be taxed above group $B$ by $L^B$, but it does not isolate them from high taxes if group $B$ is willing to accept them. The higher is $\theta^B$, the higher will be taxation under $L^B$ for both groups. As a consequence, $A$ supporters are right to fear a switch in government and are forced to accept some stealing from their own leaders. Given that (5) is binding, this makes $V^B(A)$ even lower. Hence $L^B$ will have even more slack to expropriate, and the fear of upsetting the status quo increases. In this way, a single friction in the economy, $\theta^B > 0$, amplifies across groups to free all leaders from strict accountability to their supporters. This amplification mechanism is at the core of the comparative statics developed below.

The net amount of funds that the leader $L^A$ is able to extract equals $X^A = \Phi^A + R(\eta_*^A) + (1 - \pi^A)\theta^B - \pi^A\eta_*^A$. By the envelope theorem, all the interesting effects enter through $\Phi^A$:

$$
\begin{aligned}
\frac{\partial X^A}{\partial \theta^A} &= \frac{\partial \Phi^A}{\partial \theta^A} = \frac{\Psi^A(1 + \Psi^B)}{1 + \Psi^A + \Psi^B} > 0 \\
\frac{\partial X^A}{\partial \theta^B} &= \frac{\partial \Phi^A}{\partial \theta^B} + 1 - \pi^A = \frac{\Psi^A\Psi^B}{1 + \Psi^A + \Psi^B} + 1 - \pi^A > 0
\end{aligned}
$$

In line with the amplification mechanism discussed, these results imply that an increase in the specificity of income anywhere in the economy increases equilibrium misbehavior by the rulers. In the case of a citizen of group $A$, any increase in $\theta^A$ implies increased tax discrimination by a potential $L^B$. As a consequence, she allows her leader to steal more from her. An increase in $\theta^B$ has two effects. The direct one comes from the tax markup that $L^A$ charges on group $B$; keeping $\tau^{Aa}$ constant, $L^A$ is now able to charge higher taxes on $B$ citizens. In addition, there is the amplification effect detailed above.

The weakness of institutions is proxied in the model by $\bar{\gamma}^i$ and $\bar{\gamma}^i - \underline{\gamma}^i$. A high $\bar{\gamma}^i$ implies a regime that is very difficult to dislodge as long as core supporters keep their defense.[13] Moreover, $\bar{\gamma}^i - \underline{\gamma}^i$ captures the degree of personalistic rule and the instability of succession processes: the larger is this difference, the bigger is the chance that supporters upsetting the status quo will end up facing a switch of power to the other group. Hence, it is informative to analyze the comparative statics of rent extraction with respect to these

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[13]When $\bar{\gamma}^i$ is higher than the share of the supporting population, institutions are not enforcing representativity and weak institutions cause incumbency advantage.

parameters. Straightforward differentiation yields:

$$
\begin{aligned}
\frac{\partial X^A}{\partial \bar{\gamma}^A} &= \frac{\partial \Phi^A}{\partial \bar{\gamma}^A} = \frac{\partial \Phi^A}{\partial \Psi^A}\frac{\partial \Psi^A}{\partial \bar{\gamma}^A} + \frac{\partial \Phi^A}{\partial \Psi^B}\frac{\partial \Psi^B}{\partial \bar{\gamma}^A} > 0 \\
\frac{\partial X^A}{\partial \bar{\gamma}^B} &= \frac{\partial \Phi^A}{\partial \bar{\gamma}^B} = \frac{\partial \Phi^A}{\partial \Psi^A}\frac{\partial \Psi^A}{\partial \bar{\gamma}^B} + \frac{\partial \Phi^A}{\partial \Psi^B}\frac{\partial \Psi^B}{\partial \bar{\gamma}^B} > 0 \\
\frac{\partial X^A}{\partial \underline{\gamma}^A} &= \frac{\partial \Phi^A}{\partial \underline{\gamma}^A} = \frac{\partial \Phi^A}{\partial \Psi^A}\frac{\partial \Psi^A}{\partial \underline{\gamma}^A} + \frac{\partial \Phi^A}{\partial \Psi^B}\frac{\partial \Psi^B}{\partial \underline{\gamma}^A} < 0 \\
\frac{\partial X^A}{\partial \underline{\gamma}^B} &= \frac{\partial \Phi^A}{\partial \underline{\gamma}^B} = \frac{\partial \Phi^A}{\partial \Psi^A}\frac{\partial \Psi^A}{\partial \underline{\gamma}^B} + \frac{\partial \Phi^A}{\partial \Psi^B}\frac{\partial \Psi^B}{\partial \underline{\gamma}^B} < 0
\end{aligned}
$$

The amount of rent extraction by $L^A$ is thus increasing in both $(\bar{\gamma}^A - \underline{\gamma}^A)$ and $(\bar{\gamma}^B - \underline{\gamma}^B)$. The effect of $(\bar{\gamma}^A - \underline{\gamma}^A)$ follows from constraint (7): the leader can extract more resources from his followers the more their probability of keeping power as a group depends on maintaining this particular leader in power. Clearly, if stability does not increase the probability of maintaining the group status quo, a ruler that misbehaves cannot capture any support. On the other hand, note that the amplification mechanism discussed above for $\theta^B$ is also at work for $(\bar{\gamma}^B - \underline{\gamma}^B)$. From this logic it follows that $L^A$ can expropriate more the bigger is $(\bar{\gamma}^B - \underline{\gamma}^B)$ as it increases the ability of a future $L^B$ to increase taxes across the board.

## 3.1 Subgame Perfect Equilibria

In the unique MPE described above citizens obtain low levels of utility while leaders are able to escape with high amounts of rents. It is thus interesting to ask whether strategies that condition on past history of play can generate better outcomes for the citizens at large. There are two interesting insights from the answer to this question.

First, the ability of supporters to inflict future punishments on their leader will not help. In other words, the $A$ citizens cannot reduce stealing in equilibrium from the different $L^A$ by conditioning their future play on past misbehavior by $L^A$. The reason is that the worst lifetime payoff that a leader can have is 0, which is what he obtains by leaving the game. But this is the threat that is already supporting the MPE. Therefore, punishment by a group to its elite cannot support a better equilibrium.

Second, there is a set of strategies that can support better payoffs in equilibrium, but they require coordination among the citizens from the different groups. These equilibria can support first-best in payoffs if $\delta$ is high enough.

**Proposition 2** *If $\delta$ is close enough to 1, the following strategies support first-best payoffs for the citizens of both groups. Without loss of generality assume that $S = A$.*

15

1. $L^A$ *proposes the following policy vector* $P^*$:

$$\tau^{Aa} = \tau^{Ab} = \eta^*$$
$$\eta^{AA} = \eta^{AB} = \eta^* \quad where \quad R'(\eta^*) = 1$$

2. *Group A chooses* $s = 1$ *only if the ruler proposes* $P^*$ *and there has been no deviation by any Group in the past*

3. $z^A = 0$ *only if* $\tau^{Aa} \leq \theta^A + \tau^{Ab}$ *and* $z^B = 0$ *only if* $\tau^{Ab} \leq \theta^B + \tau^{Aa}$

4. *If at any point in the past a Group did not choose* $s = 0$ *when their ruler proposed a policy different than* $P^*$, *the play reverts to the MPE stated in Proposition 1*

Even when $\delta$ is not high enough, this type of equilibrium can sustain better payoffs for the citizens than the MPE. Hence, coordination across ethnic lines provides a way of escaping the trap of kleptocracy. This equilibrium requires a group to unseat its leader if he mistreats the other group. Also, the opposition needs to trust the other group that they will oust their ruler when he steals from anybody. This need for coordination is analogous to the argument in Weingast (1997) in which citizens have to defend democracy from being subverted.

Note that this equilibrium requires groups to observe perfectly the transfers and taxes that the other group receives. This is not generally the case in divided societies. If communication across groups is imperfect and the total size of the pie to be divided is uncertain, this equilibrium would be much more difficult to sustain as the opposition would not know if they were obtaining a fair share. In the light of this proposition, it is not surprising that rulers in these countries put so much effort to keep the divided status of their citizenry using Divide-and-Rule strategies.

## 4 Discussion

The unique MPE of the model explains the existence of kleptocratic elites supported by masses of impoverished ethnic followers. The model emphasizes the role of succession frictions in the presence of divisions, captured by Assumptions 1 and 2, and it shows that the use of oppressive force by the ruler is not necessary for explaining high levels of rent extraction.[14] Supporters that cannot control the succession process are forced to acquiesce with the kleptocrat by fear of future exclusion.

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[14]The argument here is reminiscent of recent analyses of democratization processes that discount the importance of threats from below and emphasize cleavages within the elite. See, for instance, Lizzeri and Persico (2004) and Llavador and Oxoby (2005). The latter paper also emphasizes income specificity.

In addition, Assumption 3 allows the framework to provide some insight on policy determination in poor, weakly institutionalized and ethnically fragmented countries. Indeed, the equilibrium is consistent with several other phenomena that have repeatedly occurred in Post-Colonial Sub-Saharan Africa.[15]

First, the model endogenously generates inefficient policies. Note that in the simple framework proposed here, the unique potential source of inefficiency is the excessive allocation of patronage to a particular group. The need to buy support while extracting resources implies that the optimal policy by the ruler is to tax both groups and then to return some patronage to his supporters, even if it is highly wasteful. This helps explain the patterns described in the seminal work by Bates (1981) for agricultural policies in tropical Africa: the coexistence of excessive taxation with inefficient transfers for some groups.

Second, the model is consistent with a very strong bias in the allocation of public funds and predicts tax discrimination against the excluded group. Governments bias the allocation of resources by resticting access to bureaucratic posts, to the military or even to education to members of selected ethnic groups. These ethnic patterns in the allocation of patronage have been widely documented in Africa. Some salient examples of favored groups are Gikuyus and later Kalenjin in Kenya, northern groups in both Nigeria and Uganda or Tutsis in Burundi. Indeed, the bias in favor of the ruling group is reported to be one of the basic sources of resentment between ethnic groups.[16]

The model also predicts that a change in the group controlling power should be followed by a change in taxation, spending and allocation of public resources. These patterns are present in Africa. For instance, the ascension to power by Moi in Kenya was followed by an eventual substitution of Gikuyus by Kalenjin in all echelons of the state.[17] In Ghana, cocoa has been heavily taxed by all governments, civil and military, except the one headed by Kofi Busia, a native from the Ashanti region which contains a large share of smallholders that grow cocoa. In Cameroon, the substitution of Ahidjo in 1982 unleashed another deep ethnic purge of the bureaucracy. Similar dynamics can be found in Nigeria.

This pattern of discrimination, both in raising revenue and in public expenditures

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Indeed, the dependence of ruler misbehavior on the specificity of income sources is consistent with the arguments in Boix (2003) and Acemoglu and Robinson (2005) which stress the importance of violent threats.

[15]See Padró i Miquel (2006) for a longer discussion on the relevance of the predictions of the model for post-colonial Africa. This version of the paper also discusses ethnic violence and suboptimal investment in durable public infrastructure.

[16]See Horowitz (1985) and Bates (1983). Also, see Collier and Garg (1999) which document that ethnic and kin relations are rewarded with higher wages in the public sector. For a cautionary note on tax discrimination, see Kasara (2006).

[17]See Barkan and Chege (1989) for an account of the reallocation of posts and resources.

supports the view that a particular ethnic group has the government captured. Indeed, African citizens generally believe that this is the case, as documented, for instance, in Posner (2005). However, the model suggests that the actual benefits of such capture are not spread throughout the group. As discussed above, the narrow elite that holds power extracts so many resources that part of this money comes from the pockets of non-elite members of the same group. Wa Wamwere (2003) describes this imbalance in a colorful way:

> "The cream of government service goes to the ruling ethnic elites, the crumbs to the lesser ethnic elites, and dust to members of the so-called ruling ethnic community" and "Among the Gikuyu of Kenya, the approving masses are called grill lickers, *njuna ndara*"

The Politics of Fear also sheds light on the social and political dynamics of dictatorship beyond the African continent. In particular, it shows that a ruler that is kleptocratic, inefficient and costly to all groups in society may still have a basis of support that fears a change in the status quo. This is especially true if civil society is divided on ascriptive grounds. This basis of support may even be willing to fight to return to the previous status should their ruler be deposed.[18] Events in recent years in Iraq and Afghanistan provide current examples of such social dynamics. Consistent with the model, these tensions are exacerbated by a high degree of specific income easy to expropriate such as oil revenues.

The basic intuition behind the Politics of Fear may be illuminating even in strongly institutionalized settings. For the basic mechanism to work two elements are needed: politically active groups and succession frictions. Groups need not be ethnic as long as they can be differently affected by policies and individuals can not change their identities. For instance, deep ideological cleavages such as the divide between conservatives and liberals in social matters may suffice. Mild succession frictions may exist even in democracies. For example, a party may find it very difficult to find a substitute for a charismatic candidate. The core idea of the Politics of Fear is that as long as supporters need the leader to maintain power (to obtain their preferred social policy, in this example) this ruler can deviate from the preferred policy of his following in other matters and still keep their support.

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[18]De Figueiredo and Weingast (1999) show that the fear of an aggresive leader in the opposite ethnic group can rationally unleash violence. Transitions are likely to cause these conflicts. The present paper provides a framework to endogenize this fear and hence helps to understand the magnitude of conflict and the willingness to defend by violent means a seemingly inefficient status quo.

# 5 Conclusion

Many citizens worldwide have suffered under kleptocracies that have imposed distortionary and rent-creating policies on their economies. Yet, these regimes have been successful in mobilizing sizable shares of their populations into defending the status quo.

This paper proposes a coherent model of the political economy of such regimes. The main contribution of the analysis consists in showing that the political uncertainty of succession in weakly institutionalized settings can explain many of the political and economic phenomena that characterize these regimes.

However, many characteristics of these societies remain to be explained by future research. The current model assumes that the opposition always tries to unseat the incumbent and that the unique credible source of support is given by the ruler's ethnic group. These assumptions are made to focus on the incentives of supporters. While this is true in many cases, in others such as Houphouet-Boigny in Ivory Coast, rulers actually transfer resources to the opposition ethnic groups. How do the incentives in the model change when the opposition is strong enough that needs to be bought off?

This paper highlights that in weakly institutionalized regimes political and economic inefficiencies emerge because weak states impose a very particular set of constraints and needs on their rulers. These predictions are directly relevant to policy makers. Attempts at helping these economies have to take into account where the incentives of their leaders are (mis)placed. The analysis in this article reveals that in the presence of ethnic divisions, institutional strength is extremely important and implementing elections may not be enough. In particular, any reform should include effective constraints on the capacity of the leaders to discriminate among ethnic groups, and it should include mechanisms that smooth intra-group competition.

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**Proof of Lemma 1.** First, I associate to the constraints in program (8) the Lagrange multipliers $\lambda$, $\nu$, $\mu$ and $\rho$, respectively. The first order conditions of this program yield:

$$\pi^A + \lambda - \nu - \mu = 0 \tag{13}$$

$$1 - \pi^A - \lambda + \nu = 0 \tag{14}$$

$$-\pi^A + \mu R'(\eta^{AA}) = 0 \tag{15}$$

$$-(1 - \pi^A) + \rho = 0 \tag{16}$$

From (16) it is obvious that $\eta^{AB} = 0$. From (13) and (14) and the fact that $\lambda$ and $\nu$ cannot both be strictly positive at the same time we learn that $\nu = 0$, $\lambda = 1 - \pi^A$ and $\mu = 1$. $\nu = 0$ and $\lambda > 0$ imply that the second restriction is not saturated. These values for the Lagrange multipliers directly imply the result in Lemma 1. ∎

**Proof of Proposition 1.** First note that a potential $L^B$ will solve an equivalent program to (8). Denote the mapping from expectations to current play $\Gamma(\Phi^A, \Phi^B) = (\tau^{Aa}, \tau^{Ab}, \tau^{Ba}, \tau^{Bb})$, given by (10), (11), and the two equivalent equations from the problem of $L^B$. Note that since constraint (7) is respected, groups always support their leaders. As a consequence, in equilibrium the continuation values for a citizen $A$ can be expressed as:

$$V^A(A) = \omega^a - \tau^{Aa} + R(\eta^{AA}) + \delta\bar{\gamma}^A V^A(A) + \delta(1 - \bar{\gamma}^A)V^A(B)$$

$$V^A(B) = \omega^a - \tau^{Ba} + R(\eta^{BA}) + \delta\bar{\gamma}^B V^A(B) + \delta(1 - \bar{\gamma}^B)V^A(A)$$

Solving these equations for $V^A(A) - V^A(B)$ and substituting the resulting expression in (7), the no-subversion constraint can be written in terms of the equilibrium value of policy:

$$\tau^{Aa} - R(Z^{AA}) \leq \Psi^A[\tilde{\tau}^{Ba} - R(\tilde{\eta}^{BA}) - \tilde{\tau}^{Aa} + R(\tilde{\eta}^{AA})]$$

Where the superscript $\sim$ denotes equilibrium values and $\Psi^i = \frac{\delta(\bar{\gamma}^i - \gamma^i)}{1 + \delta(1 - \bar{\gamma}^A - \bar{\gamma}^B)}$. Therefore, in terms of policy, $\Phi^A = \Psi^A[\tilde{\tau}^{Ba} - R(\tilde{\eta}^{BA}) - \tilde{\tau}^{Aa} + R(\tilde{\eta}^{AA})]$. This expression for $\Phi^A$ (and the symmetric definition of $\Phi^B$) provides a mapping from actual play to consistent expectations $\Omega(\tau^{Aa}, \tau^{Ab}, \tau^{Ba}, \tau^{Bb}) = (\Phi^{CA}, \Phi^{CB})$. The equilibrium consists of a fixed point of the mapping: $\Omega(\Gamma(\Phi^A, \Phi^B)) = (\Phi^{CA}, \Phi^{CB})$. This mapping is the following:

$$\Phi^{CA} = \Psi^A[\theta^A + \Phi^B + R(\eta^{BB}) - \Phi^A - R(\eta^{AA}) + R(\eta^{AA})]$$

$$\Phi^{CB} = \Psi^B[\theta^B + \Phi^A + R(\eta^{AA}) - \Phi^B - R(\eta^{BB}) + R(\eta^{BB})]$$

Solving this system for the fixed point $(\Phi^A, \Phi^B) = (\Phi^{CA}, \Phi^{CB})$ yields:

$$\Phi^A = \frac{\Psi^A(1 + \Psi^B)(\theta^A + R(\eta^{BB})) + \Psi^A\Psi^B(\theta^B + R(\eta^{AA}))}{1 + \Psi^A + \Psi^B}$$

$$\Phi^B = \frac{\Psi^B(1 + \Psi^A)(\theta^B + R(\eta^{AA})) + \Psi^A\Psi^B(\theta^A + R(\eta^{BB}))}{1 + \Psi^A + \Psi^B}$$

Since there is a single fixed point, uniqueness of MPE is shown. These values for $\Phi^A$ and $\Phi^B$, together with Lemma 1 establish the proposition. ∎

**Proof of Proposition 2.** Denote by $V^A_{MPE}(A)$ the lifetime payoff for citizen $A$ in the MPE starting at state $A$. Define in analogous terms $V^A_{MPE}(B)$, $V^B_{MPE}(A)$ and $V^B_{MPE}(B)$. Denote by $V^A_{FB} = \frac{1}{1-\delta}\left[\omega^A - \eta^* + R(\eta^*)\right]$ and $V^B_{FB} = \frac{1}{1-\delta}\left[\omega^B - \eta^* + R(\eta^*)\right]$. These are the first best payoffs.

From the point of view of the ruler, assuming that his supporters play the equilibrium strategy, he obtains 0 in any possible deviation and in equilibrium. Hence, proposing $P^*$ is a best response. The ruler can try to break the collusion of the citizens by offering the best possible payoff to his supporters and hope that they will accept it. Given constraints (5) and (6) and the strategies postulated, the best payoff to his supporters is (assume without loss of generality that $S_t = A$):

$$V^A_{DEV}(A) = \omega^A - \pi\eta^A_* + (1 - \pi)\theta^B + R(\eta^A_*) + \delta\bar{\gamma}^A V^A_{MPE}(A) + \delta(1 - \bar{\gamma}^A)V^A_{MPE}(B)$$

The supporters will support him only if $V^A_{DEV}(A) \geq V^A_{FB}$. However,

$$V^A_{FB} - V^A_{DEV}(A) = \left[R(\eta^*) - R(\eta^A_*) - (1 - \pi)\theta^B + \pi\eta^A_* - \eta^*\right] +$$
$$+ \frac{\delta}{1-\delta}\left[R(\eta^*) - \eta^* + \frac{\Phi^A\left[\bar{\gamma}^A + \delta(1 - \bar{\gamma}^A - \bar{\gamma}^B)\right] + \left[\Phi^B + \theta^A + R(\eta^B_*)\right](1 - \bar{\gamma}^A)}{1 + \delta(1 - \bar{\gamma}^A - \bar{\gamma}^B)}\right]$$

Now, the first additive term is negative. However, the second additive term is strictly positive. Clearly, for $\delta$ close enough to 1 the difference is positive. Hence there is no current payoff that can compensate the supporting group from breaking the equilibrium and falling into the MPE. Since the MPE equilibrium is self-sustainable as a punishment strategy, the proposed strategy profile is a SPE that supports first best for the citizens. ∎