When is a State Predatory?*

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Abstract

I argue that the impact of development on the distribution of political power in society may create an incentive for a state to become "predatory" and fail to promote economic development. I develop a model of endogenous policy choice where public investment, while socially productive, simultaneously increases the ability of agents outside the ruling group to contest political power. The model shows that inefficient underinvestment (predatory behavior) tends to arise in societies where, (1) there are large benefits to holding political power, and which are, (2) well endowed which natural resources, (3) badly endowed with factors which are complementary to public investment, such as human capital, and (4) intrinsically unstable. I document the importance of the mechanism I propose in accounting for the behavior of actual predatory regimes.

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1. Introduction

The recent literature on economic growth has emphasized the role of government policy in promoting or impeding development,[1] yet we do understand what *causes* good or bad policy.[2] Though there are many positive models of politics where the equilibrium policy differs from the policy which maximizes social welfare (see Persson and Tabellini 2000, for a survey), we still lack a convincing conceptual approaches to the political economy of development. In this paper I propose a theory of the relationship between endogenous government policy and economic development. To do so I restrict attention to non-democratic regimes (the case which seems most relevant for developing countries) where the political system is controlled by a group (the 'elite') whose aim is to maximize its own welfare. The incidence of bad policy is puzzling because even self-serving regimes would have an incentive to promote development if they could extract enough of the resulting wealth. However, policies which promote economic development, while generating prosperity, may simultaneously alter the distribution of political power in a way that adversely affects groups initially in control of the political system. If the future gainers of power cannot make credible commitments, it may be better for those who control power to retain it rather than to promote development.

If policies that promote economic development (such as building infrastructure and promoting free trade) and good institutions (such as secure property rights and an efficient bureaucracy) are inconsistent with the maintenance of the political status quo, then this gives elites an incentive to be "predatory",[3] though this incentive may be dominated by the costs of being predatory. If the costs are too high

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[1]See for example Krueger (1993) or Lal and Myint (1996).

[2]For example, there seems to be no robust empirical relationship between policy and regime type. As we know from both stylized facts, and empirical work, the relationship between dictatorial, democratic regimes, and economic growth, is ambiguous, see Barro (1996) and Przeworski and Limongi (1993).

[3]I use the word "developmental" to describe an elite which chooses policies to promote development, and "predatory" to describe one that does not. This terminology is standard in the wider social science literature on the state (e.g. Evans, 1989).

then the elite may promote development and respond to threats to their power by other means. I study how redistribution of income may be used by elites as a policy which can reconcile the promotion of development with the maintenance of power. Nevertheless, even with a richer set of instruments, predatory behavior typically occurs in equilibrium. The model also allows for developmental policy to potentially stabilize the power of a regime by promoting prosperity. Again I show that even allowing for such a mechanism, predatory behavior generally arises.

To build a model of how development and political equilibrium interact I focus on the idea that providing public goods, such as infrastructure, reduces the cost of contesting elite control through collective action. I associate predatory behavior with the undersupply of public goods. In section 4.3 I document the importance of the specific mechanism I propose in determining the policy decisions of predatory states.

The analysis of the paper shows that predatory behavior is likely to emerge in societies (1) where the benefits of political power are large, (2) which are well endowed which natural resources, (3) which are badly endowed with factors which are complementary to public investment, such as human capital, and (4) which are intrinsically unstable, perhaps because they have illegitimate states, or because society is highly mobilized politically. These findings help to clarify why we have seen developmental elites in East Asia and predatory ones in Africa. Much of the relative economic performance of these regions is attributed to good policies in East Asia and bad ones in Africa (on Asia see World Bank 1993, Aoki et al. 1997, and Rodrik 1995), on Africa see Sachs and Warner (1997) and Rodrik 1998). Many scholars have pointed out that what is distinct about the former relative to the latter is their relatively high human capital and lack of natural resources (for example Rodrik 1996), Campos and Root 1995). What the theory of this paper does is to forge a link that has been missing between these explanatory variables and policy choices.

The results I derive extend and qualify the existing theory of the predatory

state which suggests that developmental behavior arises in three sets of circumstances; (1) when elites have sufficient fiscal instruments to extract the benefits from development, (2) if, in the absence of such instruments, elites are "encompassing" in the economy (in the sense of the proportion of factor income that accrues to them) or, (3) if elites have long time horizons. The first idea is due to North (1981) who suggested that efficient policy might not maximize the revenues of a ruler due to transactions costs. The second idea, due to Olson (1982,1993) and McGuire and Olson (1996), is that the larger an encompassing interest an elite has in society, the larger will be the incentive to provide an efficient level of public goods. The third builds on the idea that good policy has a time dimension since it involves investment, so that an elite must have a long time horizon if it is to be developmental (see Levi 1988).[4] Unfortunately, as I argue in section 4.2, neither (2) or (3) seem consistent with the available empirical evidence. Studying the motivation behind actual examples of predatory behavior, as I do in section 4.3, illustrates this. In my model it is possible that the more encompassing an elite and the longer its time horizon, the *more likely* it is to be predatory. I show that the positive effects of encompassing only unambiguously operate when the elite are not threatened by future political transition, and that this occurs *only at low degrees of encompassing.* McGuire and Olson's analysis is incomplete because they do not model what North (1981) called the 'competition constraint' on an elite. I show that encompassing naturally tends to tighten this constraint and I model predatory behavior as a way to relax it. Moreover, the more that elites value the future, the more they care about the future change in the political equilibrium induced by development. This can reduce the likelihood that they

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[4]An important aspect of this issue, developed in Grossman and Noh (1994), focuses on the fact that the policy choice calculated in models like that of McGuire and Olson (1996) is time inconsistent. Lacking the power to commit, subgame perfect equilibrium policies are even less efficient. This source of efficiency may be ameliorated by the dictator caring enough about the future that it wants to build a reputation. Grossman and Noh (1994) study the effect of the desire to stay in office on the efficiency of policy, yet they assume that better policies lead to longer survival. This is the opposite of the idea I develop in this paper.

are developmental. In terms of North's (1981) theory, my paper can be seen as a particular formalization of what transactions costs might be important and the way in which they stop an elite simply maximizing national income and taxing away the benefits for themselves. Here a main contribution of my theory is to add comparative statics to the specification of transactions costs.

There are several other theoretical contributions related to the present one. Roemer (1985) and Grossman (1991) first studied general equilibrium models where political power could be contested by collective action and revolution (see also Skaperdas, 1993) and Grossman (1993) studied how redistribution could be used to reduce the threat of revolution. Acemoglu and Robinson (2000) showed that institutional changes, such as democratization, were an alternative instrument to redistribution when faced by the threat of revolution. None of these papers suggest or study the connection between government policy and conflict which I develop here. Bourguignon and Verdier (2000) build a model where the anticipation of endogenous political participation influences government policy towards education. Their research is complementary to that presented in this paper since, in my terms, they isolate another important mechanism through which developmental policy affects the political equilibrium. Rajan and Zingales (1996) have examined how technological innovation may be blocked because the wealth effects of compensation affect bargaining power and their model has an inseparability between efficiency and distribution which is related to the one of the present model.[5] Finally, Wintrobe (1998) has developed a formal theory of dictatorship, however his analysis does not focus on the conditions under which such regimes do or do not promote economic development.

The paper proceeds as follows. In Section 2 I proceed immediately to de-

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[5]There are other arguments as to why efficiency and distribution might be inseparable. For example, Coate and Morris (1995) argue that efficient redistribution may reveal sensitive information about the preferences of regimes and thus economically efficient policies are not political equilibria. Yet this argument is probably not of central importance for the types of situations relevant for development.

veloping the model and Section 3 discusses how the model helps us understand predatory behavior. Section 4 then returns to discuss the evidence on which this paper is based. Section 4.1 confronts the implications of the basic existing theoretical model of predatory states with evidence and section 4.3 discusses the interrelationship between development and political equilibrium and how this conditions policy choice. Section 5 concludes, and discusses the relationship between the theory of government policy choice developed here and models of policy choice in democratic systems.

2. A Formal Model

2.1. Fundamentals

I consider an infinite horizon economy in discrete time. At any date there are two types of infinitely lived agents, one type are members of a group which holds political power at any time (the elite), superscripted and referred to as P, and the other type are in another group out of power, superscripted and referred to as N. The membership of these groups is exogenous and the number of agents in each group is normalized to one.[6] All agents have linear utility functions defined over consumption of a single consumption good in each period (which is numeraire) and wish to maximize, $E_0 \sum_{t=0}^{\infty} \delta^t c_t^i$ for $i = N, P$ where $\delta \in (0, 1)$ is the subjective rate of time preference (common to all agents) and E_0 is the expectations operator taken conditional on all information available at $t = 0$. There is an exogenous endowment of two types of asset in each period: k units of an capital and R units of natural resources. Both can be used to produce the consumption good. Total output is $A(g)k + R$ where the productivity of capital can be increased if the government invests in a public good ('infrastructure'), denoted g. I assume that $A(g)$ is differentiable, strictly increasing and concave with $A'(g) > 0$, $A''(g) < 0$ and $A(0) > 0$, and that an investment of g lasts for one period only. There is no

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[6]I discuss later several interpretations of these groups.

storage technology and no saving in the model.

Agents of group N are endowed with a share $1 - \theta$ of the asset endowment with the elite in power getting the remaining share θ. Thus $\theta \in [0, 1]$ captures the benefits from being in power. The income accruing to an agent of group N in any period is therefore $(1 - \theta) [A(g)k + R]$, with a member of the elite getting $\theta [A(g)k + R] - g$, net of investment.[7] The socially efficient level of investment, denoted g^*, satisfies, $A'(g^*)k = 1$.

In each period the group out of power has the opportunity to take power at the start of next period with probability ϕ. If this opportunity occurs and is accepted then the two groups exchange roles. The former elite is out of power and the group formally out of power is the new elite. I shall examine two sets of assumptions about ϕ. I first conduct the analysis by allowing ϕ to be a differentiable, increasing and concave function of g only, with $\phi'(g) > 0$, $\phi''(g) < 0$. This captures the idea that increasing expenditure by the government on infrastructure or development destabilizes its political power. In the model it increases the probability that the opposition can take power. I then consider an important extension of the model where I allow agents out of power to allocate part of their capital to contesting power. Let r be the fraction of capital allocated to contesting power with the remaining proportion $1 - r$ used in production. In this case I assume that ϕ is increasing in both g and r with partial derivatives, $\phi_g(g, r) > 0$, $\phi_r(g, r) > 0$, $\phi_{gg}(g, r) < 0$, $\phi_{rr}(g, r) < 0$, and $\phi_{gr}(g, r) > 0$. I further assume that $\phi(g, 0) = 0$ so that resources must be allocated to contesting power for power to actually change hands.

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[7]The use of θ to capture the benefits of power is a simple reduced form. Alternatively I could model the two groups as having fixed assets shares which were unchanged even if there were changes in power. In this case one would add taxes to capture the benefits from power. For example, the flow payoff to the group with assets share θ would be $(\tau(1-\theta)+\theta) [A(g)k + R] - g$, when in power, and $(1 - \tau)\theta [A(g)k + R]$ when out of power. Here asset/income redistribution would take place when the desired tax rate is negative. Though such a model is somewhat richer, the formalization I choose captures the essence of the interesting results in the simplest way.

The general timing of events within a period can be summarized as follows.

1. At the start of the period the elite decide on how much to invest in infrastructure.

3. Asset allocation takes place, incomes are realized and consumption takes place.

2. Nature decides whether or not power can change hands. Power can change with probability ϕ and following the realization of this random variable the group out of power decides whether or not to take power.

Later this will be augmented both by allowing the elite to redistribute assets and by allowing the group out of power to allocate resources to contesting power.

2.2. Analysis: Basic Model

I begin by assuming that ϕ depends only on g. The model defines a discounted infinitely repeated game between the two groups. I characterize the pure strategy Markov perfect equilibria of this game.[8] Define $V^N(\theta)$ to be the expected present discounted value of a member of group N when the asset distribution is θ, and let $V^P(\theta)$ be the corresponding value for the elite. $V^N(\theta)$ satisfies the following recursive relationship:

$$V^N(\theta) = (1 - \theta) \left[A(g)k + R \right] + \delta \left[(1 - \pi\phi(g))V^N(\theta) + \pi\phi(g)V^P(\theta) \right], \quad (2.1)$$

Here π is an indicator variable capturing the fact that the expected continuation value depends on the strategy choices of group N. If the optimal strategy is to take power when it is possible then $\pi = 1$ while otherwise $\pi = 0$. The value $V^N(\theta)$ consists of the flow payoff, plus the discounted expected continuation value. If $\pi = 1$ then with probability $1 - \phi$ the existing elite retains power, while with probability ϕ the roles of the groups are reversed.

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[8]Even in this simple game there may be subgame perfect non-Markovian equilibria of the following type. The elite invests in public goods to some $g > g^e$ and in return the other group refuses to take power if they have the chance. If either deviates from these strategies then the groups play a punishment path where the elite invests g^e and the other group always take power if it gets the chance.

For the elite we have,

$$V^P(\theta) = \theta\left[A(g)k + R\right] - g + \delta\left[\pi\phi(g)V^N(\theta) + (1 - \pi\phi(g))V^P(\theta)\right] \qquad (2.2)$$

In this simplest version of the model agents in group N make no decisions except whether or not to take power if they are able to do so. First note that if θ is small then agents out of power will not be interested in taking power even if given the chance. I can therefore define a $\underline{\theta} > 1/2$ such that, $\underline{\theta}\left[A(g(\underline{\theta}))k + R\right] - g(\underline{\theta}) = (1 - \underline{\theta})\left[A(g(\underline{\theta}))k + R\right]$ where $g(\underline{\theta})$ is the optimal choice of g at $\underline{\theta}$, such that, if $\theta \in [0, \underline{\theta}]$ then the distribution of assets is such that agents out of power never assume power even if given the chance (i.e. $V^N(\theta) \geq V^P(\theta)$ for all $\theta \in [0, \underline{\theta}]$). Such a $\underline{\theta}$ clearly exists.

The only choice for the elite is the amount of government investment, and I let g^e denote the optimal choice. Note that since whichever group is in power all agents of the elite have identical preferences they all prefer the same g^e and so it is not necessary to model in detail a collective choice problem for the elite. For $\theta \in [0, \underline{\theta}]$, g^e satisfies $\theta A'(g)k - 1 = 0$. When θ is small, the level of public goods provision is such that the constraint that power may be contested does not bind and the elite chooses g in an unconstrained way to maximize utility. For $\theta \in (\underline{\theta}, 1]$, g^e satisfies the first-order condition:

$$\theta A'(g)k - 1 - \delta\phi'(g)\left[V^P(\theta) - V^N(\theta)\right] = 0 \qquad (2.3)$$

where the value functions are evaluated at the optimum and $\pi = 1$. I shall assume that the second-order condition for this problem is satisfied. In setting g the elite now takes into account, not only the direct costs and benefits in terms of extra productivity, but also the effect of higher g on $\phi(g)$ and the effect of this on $V^P(\theta) - V^N(\theta)$ which captures the expected discounted value of staying in power.

Since $V^P(\theta) - V^N(\theta) > 0$ when $\theta > \underline{\theta}$ we have that $\theta A'(g^e)k > \theta A'(g^*)k$ and so $g^e < g^*$ by the concavity of A. When g has the effect of destabilizing political power, this reduces the level of g below the efficient one.

Using (2.1) and (2.2) we have,

$$V^P(\theta) - V^N(\theta) = \frac{(2\theta - 1)\,[A(g)k + R] - g}{1 - \delta(1 - 2\phi(g))}$$

Substituting into (2.3) gives:

$$\theta A'(g)k = 1 + \frac{\delta\phi'(g)\,[(2\theta - 1)\,[A(g)k + R] - g]}{1 - \delta(1 - 2\phi(g))} \tag{2.4}$$

Note that the term $V^P(\theta) - V^N(\theta)$ includes future choices of g which will be made by the other group (which is currently out of power). However, since this group is identical and the problem is recursive, as long as the solution to (2.4) is uniquely defined, g^e is well defined by (2.4).[9]

Consider now the comparative statics of (2.4), first with respect to θ. When $\theta \in [0, \underline{\theta}]$ higher θ increases the benefits of being in power and clearly increases the efficiency of policy since a larger share of income accrues to the elite and thus private investment incentives become more closely aligned with social incentives. For $\theta \in (\underline{\theta}, 1]$, θ has two effects. Firstly, higher θ again tends to increase g^e since it increases the proportion of the social marginal benefit that accrues to the elite. Secondly, higher θ increases the difference between the values of being in and out of power, so that $\frac{\partial[V^P(\theta) - V^N(\theta)]}{\partial\theta} > 0$. This second effect, since it leads the elite to care more about maintaining power tends to reduce g^e by putting more weight on the term $\delta\phi'(g)$ in the first-order condition. Thus for $\theta > \underline{\theta}$ the net effect of higher θ is ambiguous. To see these results explicitly I can compute,

$$\frac{\partial g}{\partial\theta} = \frac{-A'(g)k + \frac{2\delta\phi'(g)[A(g)k + R]}{1 - \delta(1 - 2\phi(g))}}{\Omega}$$

where $\Omega < 0$ from the second-order condition. The strengths of these two effects on $\partial g/\partial\theta$ depend on several things. The first term, $-A'(g)k$ captures the effect

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[9]Notice that the second-order condition for (2.3) requires $\theta A''(g)k - f_g(\theta, g) < 0$, where $f(\theta, g) \equiv \frac{\delta\phi'(g)[(2\theta-1)[A(g)k+R]-g]}{1-\delta(1-2\phi(g))}$. A sufficient condition for this is $f_g(\theta, g) > 0$. Then, dividing by θk and inverting the function A', (2.4) can be written as $g = \chi(g)$. The question then is whether or not χ has a unique fixed point. If $f_g(\theta, g) > 0$ for all g then χ is monotone decreasing and only cuts the 45 degree line once.

that higher θ pushes the elite's marginal private benefit from investment towards the social marginal benefit. This tends to increase g^e. Notice that any factor which raises marginal productivity, $A'(g)$, relative to total productivity, $A(g)$, strengthens this effect. An interesting example of this may be human capital or generally technological knowledge. On the other hand, the second term in the numerator captures the effect of greater benefits from being in power on $V^P(\theta) - V^N(\theta)$. Anything which increases the size of the effect of θ on this term tends to make policy worse. For example, the greater is the sensitivity of the probability of losing power to public investment, the higher is $\phi'(g)$, the greater the weight put on $\frac{\partial[V^P(\theta) - V^N(\theta)]}{\partial \theta}$ and the more likely is the greater relative benefit to being in power to lead to lower g^e. Finally, note that greater R/k has exactly the same effect as greater $\phi'(g)$, so that the greater the relative weight of natural resources in the factor endowment, the more likely it is that higher θ reduces the efficiency of policy.

Equation 2.4 also reveals other interesting direct results. The higher is R the greater is $V^P(\theta) - V^N(\theta)$ when $\theta > \underline{\theta}$ and the lower is g^e. If the economy is well endowed with natural resources then this increases the incentive of the elite to stay in power and tends to reduce g^e. Natural resources do not affect the marginal productivity of public investment but they do increase the benefits of power (since these involve extracting the lion's share of resources). The efficiency of government policy is also increased by factors which raise the marginal productivity of public investment (since they raise the opportunity cost of predation) and when ϕ is insensitive to g.

I now sum up the results of this model with the following proposition.

Proposition 2.1. 1: *If $\theta \in [0, \underline{\theta}]$, so that the benefits of power are relatively low, increasing these benefits leads to more efficient policy.*

2: *If $\theta \in (\underline{\theta}, 1]$, so that the benefits of power are high, increasing them leads to worse policy when, (1) the probability of losing power is very sensitive to*

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public investment, (2) the economy is poorly endowed with factors of which raise the marginal productivity of public investment (human capital), and (3) the economy is heavily endowed with natural resources.

2a: *The greater the natural resource endowment, the worse is policy.*

2b: *The greater the stock of factors which raise the marginal productivity of public investment (human capital), the better is policy.*

2c: *The greater the sensitivity of political power to public investment, the worse is policy.*

2d: *The more the elite values the future, the worse is policy.*

The proof of this result is easy to establish from the above derivations and discussion. Result 2c in Proposition 2.1 has several interesting interpretations. The more sensitive the probability of losing power is to public investment the larger the sub-set of the parameter space for which the investment decision will be constrained by its ramifications for political power. This result may help us to understand the extent of predatory behavior in African countries. A recent empirical finding of Easterly and Levine (1997) is that the ethnic diversity of African countries can help explain both poor policies and low growth. However, the authors provide no real mechanism for why this might be. The model of the current paper suggests one: if ethnic groups are better able to solve collective action problems than other social groups then they will be able to contest political power more successfully. This may increase the marginal effect of g on ϕ and increase the likelihood of predation. The idea that ethnic groups can be effective in solving collective action problems has been studied by Greif (1995) and is common in the literature on ethnic groups, see for example, Horowitz (1985). Moreover, this result may help us to capture another feature of the political economy of Africa. Many have argued (e.g. Davidson 1992) that one of the implications of

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the colonial heritage is that independent African states lack legitimacy.[10] This implies that they lack consent and are unstable. In the context of the model this translates into a high $\phi'(g)$ and tends to make their governing elites predatory.

Higher δ, by putting more weight on this future benefit of maintaining power, tends to decrease the sub-set of the parameter space for which investment is efficiently undertaken. Intuitively, the elite trades off the loss today in lower output and consumption from not investing, against the benefit of maintaining political control in the future (and the higher income this brings). This comparative static is the opposite of the conventional wisdom that long time horizons make for efficient public investment even if governments are self-interested. It might be thought that this result is a figment of the fact that the model does not have enduring investments. In section 2.4 I sketch an extension to the model where I allow government capital to accumulate over time. I show that while this introduces countervailing forces the above effect remains.

Proposition 2.1 considers the effect of the economic environment on the choice of government investment. It is interesting to consider the effect of other policy instruments. For example, it seems plausible that the elite might be able to promote economic development and use redistribution to maintain political power. It is easily seen however that this is not so in the current model because what is needed to deter the other group from taking over is the promise of future redistribution (current redistribution does not alter their decision). Such redistribution is not credible. The credibility issue is important because without it, agents out of power ought to be able to encourage the elite to efficiently invest by offering, either not to take power should they have the chance, or to compensate them if they did take power. Neither offer is credible. Allowing the elite to costlessly alter the distribution of assets by choosing θ (which I consider in detail in the next sub-section) leads to straightforward results in this model. Since varying θ itself

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[10]For example, Botswana might have performed relatively well since independence because the country corresponds to the territory of a single ethnic group. Thus its international boundaries have a logic that most do not.

has no direct effect on ϕ the outcome is a corner solution. If $V^P(1) > V^P(\underline{\theta})$ then the elite expropriates all assets setting $\theta = 1$, otherwise the elites redistributes to $\underline{\theta}$ and power never changes hands again.

2.3. Analysis: Extended Model

I now extend the results of the previous section to allow ϕ to depend not just on g but also on r, the share of capital of group N allocated to contesting power. This extension allows me to consider two important phenomenon. Firstly, redistribution by the elite can now play a role in maintaining power since it can alter the optimal choice of r by agents in the group without power. To model redistribution by the elite I let them choose θ relative to some status quo level θ_0 and for simplicity I assume that redistribution (which I allow to be positive or negative, i.e. expropriation) is not costly and can be undertaken every period. Secondly, increasing g, by raising the productivity of the technology, may also reduce the incentive to increase r since it increases its opportunity cost. This allows me to capture the idea that regime instability can be countered by improving government policy.

I begin by exploring the implications of endogenizing the choice of r with θ fixed and then allow for θ to be endogenous in the next sub-section. The state chooses g first taking into account its effect on the choice of r (it therefore acts as a Stackelberg leader). The timing of the game within a period is amended in the obvious way. To calculate Markov perfect equilibria I therefore start with the optimal choice of $r \in [0, 1]$, which is the proportion of their assets which agents out of power allocate to contesting political power. The value function for agents in the group out of power is:

$$\widehat{V}^N(\theta) = (1 - \theta)\left[A(g)k(1 - r) + R\right] + \delta\left[(1 - \pi\phi(g, r))\widehat{V}^N(\theta) + \pi\phi(g, r)\widehat{V}^P(\theta)\right].$$
$$(2.5)$$

While that of the elite is:

$$\widehat{V}^P(\theta) = \theta\left[A(g)k + R\right] - g + \delta\left[\pi\phi(g, r)\widehat{V}^N(\theta) + (1 - \pi\phi(g, r))\widehat{V}^P(\theta)\right], \quad (2.6)$$

where I use the notation, $\widehat{V}^N(\theta)$ and $\widehat{V}^P(\theta)$ to distinguish these value functions from those of the previous sub-section. In endogenizing r there is potentially a serious collective action problem for the group out of power. Although being in power generates private benefits, if one agent of group N chooses r treating as given the r's chosen by the other agents, then there is a clear incentive to free ride. However, this collective action problem is not of essence for the current analysis and therefore I assume that the group out of power can use some social choice mechanism to solve this problem. For example, the level of r to be chosen by each agent could be determined by the median voter of the group out of power. Interestingly, allowing for free riding (solving for a Nash equilibrium in the r's) does not change the qualitative results on which I focus.

Under these assumptions, an optimal interior choice of r satisfies the first-order condition,

$$-(1 - \theta)A(g)k + \pi\delta\phi_r(g, r)\left[\widehat{V}^P(\theta) - \widehat{V}^N(\theta)\right] = 0. \quad (2.7)$$

I shall assume that the second-order condition is satisfied. Again the value functions are evaluated at the optimum. Note again that when θ is low, $\Delta\widehat{V}(\theta) \equiv \widehat{V}^P(\theta) - \widehat{V}^N(\theta) < 0$ and therefore $r = \pi = 0$. Thus, I can define a critical value of θ, denoted $\widehat{\theta} > 1/2$ such that, for all $\theta \in [0, \widehat{\theta}]$ we have $r = \pi = 0$, while for all $\theta \in (\widehat{\theta}, 1]$ we have $r > 0$ and $\pi = 1$.

Let, $r(\theta, g, R)$ denote the solution to the first-order condition (2.7). The derivatives of this function are intuitive. Firstly, $r_\theta > 0$ and $r_R > 0$, so that, other things equal, greater benefits from power and a higher stock of natural resources increase the proportion of resources allocated to contesting political power (note also $r_{A'} < 0$). However, the effect of g on r is more complex. To see this note from (2.5) and (2.6) that

$$\Delta\widehat{V}(\theta) = \frac{(\theta - (1 - \theta)(1 - r))A(g)k + (2\theta - 1)R - g}{1 - \delta(1 - 2\phi(g, r))},$$

and hence, substituting for the value functions into (2.7) and differentiating,

$$r_g = \frac{(1-\theta)A'(g)k - \delta\left[\phi_{rg}\Delta\widehat{V}(\theta) + \phi_r\frac{\partial\Delta\widehat{V}(\theta)}{\partial g}\right]}{\Psi}$$

where $\Psi < 0$ from the second-order condition. The effect of higher g on r is ambiguous. On the one hand, higher g, by increasing $A(g)$, raises the opportunity cost of contesting political power and tends to reduce r. On the other hand, since $\phi_{rg} > 0$ higher g increases the marginal effect of r on the probability of gaining power, an effect which tends to increase r. Finally, $\Delta\widehat{V}(\theta)$ is also a function of g. When $\theta \in (\widehat{\theta}, 1]$ higher g tends to increase this difference through its effect on $A(g)$, but it simultaneously reduces the expected duration of this state and thus the net effect on $\Delta\widehat{V}(\theta)$ is ambiguous. The effect of higher A' is also ambiguous. I shall proceed by focusing on the case where $r_{gA'} < 0$ so that higher marginal productivity of public investment decreases the marginal effect of g on r.

This discussion demonstrates that in fact allowing agents out of power to allocate resources between productive activities and contesting power may not make policy better. Although one effect induces higher g in order to increase the attractiveness of production, this effect can be dominated by the fact that higher g may simultaneously increase the relative attractiveness of allocating resources to contesting political power. This latter effect follows because higher g increases the effectiveness of allocating resources to contesting power.[11] Under what circumstances would one rather than another of these effects dominate? One unambiguous result is that, since $\frac{\partial\Delta\widehat{V}(\theta)}{\partial g}$ is independent of R, but $\Delta\widehat{V}(\theta)$ is increasing in R, the higher is R the greater the likelihood that $r_g > 0$, thus $r_{gR} > 0$. Thus in countries with large natural resource endowments increasing government expenditures may increase the efforts of agents to destabilize the regime.

I can now calculate the optimal g. For $\theta \in (\widehat{\theta}, 1]$ this satisfies the first-order

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[11]Any alternative way of modelling this has similar results. For example, instead of allocating assets between producing or contesting power, agents in group N could either consume income or allocate it to contest power. Such a model has similar trade offs.

condition,

$$\theta A'(g)k - 1 - \delta \left(\phi_g + \phi_r r_g\right) \left[\widehat{V}^P(\theta) - \widehat{V}^N(\theta)\right] = 0 \qquad (2.8)$$

I shall assume that the second-order condition is satisfied. The difference between the results from this model and those of the previous sub-section hinge on the function $r(\theta, g, R)$. The obvious point is that if $r_g > 0$ then public investment is inefficiently low, moreover, even if $r_g < 0$, so that the effect of public investment on the allocation decision of agents in the group out of power tends to encourage public investment, investment is only fully efficient in the singular case where $\phi_g = -\phi_r r_g$.

The comparative statics of (2.8) are rather complex, for example the effect of θ of the choice of g can be calculated to be:

$$\frac{\partial g}{\partial \theta} = \frac{-A'(g)k + \delta \left[\phi_g + \phi_r r_g\right] \frac{\partial \Delta \widehat{V}(\theta)}{\partial \theta} + \delta \Delta \widehat{V}(\theta) \left[(\phi_{gr} + \phi_{rr} r_g) r_\theta + \phi_r r_{g\theta}\right]}{\Upsilon}$$

where $\Upsilon < 0$ from the second-order condition. The first two terms in the numerator are closely related to those of $\partial g / \partial \theta$ calculated in the previous section. On the one hand, other things equal, higher θ improves investment incentives because a greater proportion of the marginal benefits of g accrues to the elite. On the other hand, since $\frac{\partial \Delta \widehat{V}(\theta)}{\partial \theta} > 0$ higher θ makes the elite want to stay in power more and this tends to reduce g. The last term, multiplying $\Delta \widehat{V}(\theta)$, captures the effect of higher θ on the marginal effect of g on ϕ. There are three terms. First, $\phi_{gr} r_\theta$; here higher θ tends to increase r by making power more attractive, and since $\phi_{gr} > 0$ this tends to reduce investment. Second, $\phi_r r_{g\theta}$; where higher θ alters the marginal effect of g on r, from the derivation of r_g it is clear that $r_{g\theta} > 0$. Higher θ increases the marginal return to allocating resources to contesting political power. Finally, $\phi_{rr} r_g r_\theta$; where since $r_\theta > 0$, diminishing marginal productivity of r tends to encourage investment when $r_g > 0$. Clearly, $\partial g / \partial \theta$ is ambiguous in sign. However, let me restrict attention to the intuitive case where $\phi_{gr} + \phi_{rr} r_g > 0$. Here, $r_g < 0$, or $r_g > 0$ but the term ϕ_{gr} dominates. Under this assumption it is easy to see that $\frac{\partial [\phi_g + \phi_r r_g]}{\partial \theta} > 0$. In essence it guarantees that the marginal effect of g on the

probability that power will change hands, is increasing in r. This seems plausible. Note that this condition implies $\frac{\partial[\phi_g + \phi_r r_g]}{\partial R} > 0$ and, since $r_{gA'} < 0$ from above, $\frac{\partial[\phi_g + \phi_r r_g]}{\partial A'} < 0$.

In the case where $\phi_g + \phi_r r_g > 0$. The comparative statics of (2.8) (and their interpretation) turn out to be identical to those of (2.4). Indeed, the statement of the Proposition applies exactly as before.

2.4. Redistribution

I now consider the impact of endogenizing redistribution in the extended model. This has interesting effects because it now may alter the level of r. Optimal θ, if interior, satisfies,

$$A(g)k + R - \delta\phi_r r_\theta \left[\widehat{V}^e(\theta) - \widehat{V}^c(\theta)\right] = 0 \qquad (2.9)$$

To consider the implications of (2.9) further, evaluate it at the initial level of inequality, denoted θ_0, and the corresponding $g(\theta_0)$. In this case, if

$$A(g(\theta_0))k + R > \delta\phi_r(g, r(\theta_0, g(\theta_0), R))r_\theta(\theta_0, g(\theta_0), R)\left[\widehat{V}^e(\theta_0) - \widehat{V}^c(\theta_0)\right]$$

then from the initial level of inequality, the elite would actually wish to expropriate the other group, not redistribute to them. Such an outcome is likely if, as θ increases and the share of output accruing to the elite increases, r does not respond too much (so that r_θ is small) and/or its effect on the probability that political power changes hands, ϕ_r, is small.[12] Since the size of the elasticity of r with respect to θ is critically determined by ϕ_r, it is this which is key. On the other hand if this inequality is reversed, then the elite redistribute and set $\theta < \theta_0$. In the case where $\partial g/\partial\theta < 0$ then in the first case rising inequality is accompanied by a falling supply of public goods while in the latter the elite redistributes and increases the supply of public goods.

This discussion leads to the final result of the paper.

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[12]Note that with non-linear utility there would also be an income effect tending to reduce r as θ increased.

Proposition 2.2. *If the share of assets owned by the elite is endogenous then, relative to the status quo θ_0:*

1: *If political power is relatively insensitive to r and g, then $\theta > \theta_0$ and the elite expropriates the citizens and increases the level of public goods above $g(\theta_0)$.*

2: *If political power is relatively sensitive to r and g, then $\theta < \theta_0$ and the elite redistributes to the citizens and increases the level of public goods above $g(\theta_0)$.*

The result suggests that in societies where it is difficult to contest the political power of the elite, elites expropriate rather than redistribute. In the intuitive case where the effect of r and g on ϕ are both of the same magnitude, then expropriation is accompanied by increasing levels of public investment. On the other hand, if there were qualitative distinctions between the effects of r and g on ϕ such expropriation could be accompanied with a lower supply of public goods. This case may actually be the most relevant one since, as section 4 records, most cases of large expropriations by elites seem to involve worse not better policy. The likely reason for this is that while expropriation may be feasible and profitable for elites, it may severely reduce the efficiency of production since those expropriated had crucial economic skills. This was certainly the case which such mass expropriations as that of Idi Amin in Uganda in the 1970's and the Zairianization program of Mobutu during 1973-74. In both these cases expropriations were followed by economic collapses which undoubtedly reduced the marginal incentive of the regime to subsequently invest in public goods.

It seems likely that redistribution is easier than expropriation. If a constraint $\theta \leq \theta_0$ is added to the problem then case 1 of Proposition 2.3 implies that even if redistribution were feasible it would not be used by elites and its availability would not improve the supply of public investment.

2.5. The Model with a State Variable

I now sketch an extension to the model of section 2.2 to allow public capital to accumulate over time. To do this in an interesting way I assume now that utility is concave so that the agents have objective function $E_0 \sum_{t=0}^{\infty} \delta^t u(c_t^i)$ where $u(.)$ is concave and has the standard properties. Let g_t be the public capital stock at date t and let i_t be public investment. I assume that there is 100% depreciation of capital so that, $g_{t+1} = i_t$. Now let, $V^i(\theta, g_t)$ to be the expected present discounted values when the level of inequality is θ, and the public capital stock is g_t and let the probability that the elite are deposed be $\phi(g_{t+1})$ (note that the value function is also conditioned on g_t). $V^P(\theta, g_t)$ satisfies the Bellman equation:

$$V^P(\theta, g_t) = u(\theta \left[A(g_t)k + R\right] - i_t) +$$

$$\delta \left[\phi(g_{t+1})V^N(\theta, g_{t+1}) + (1 - \phi(g_{t+1}))V^P(\theta, g_{t+1})\right] \qquad (2.10)$$

Now the first-order condition for the choice of i_t is, using $g_{t+1} = i_t$,

$$u'(\theta \left[A(g_t)k + R\right] - g_{t+1}) - \delta\phi'(g_t) \left[V^P(\theta, g_{t+1}) - V^N(\theta, g_{t+1})\right] + \qquad (2.11)$$

$$\delta \left[\phi(g_{t+1})V_g^N(\theta, g_{t+1}) + (1 - \phi(g_{t+1}))V_g^P(\theta, g_{t+1})\right] = 0$$

Under standard conditions the derivatives of the value functions $V_g^N(\theta, g_{t+1})$ and $V_g^P(\theta, g_{t+1})$ exist and are positive. The last term in the condition shows that, for fixed $\phi(g_{t+1})$, higher δ leads to higher g since it tends to increase the value of having a larger stock of public capital at the beginning of the next period. However, the second term on the first line of (2.11) generates an identical effect to that discussed in Propositions 2.1 and 2.2. Higher δ, by placing a higher value on maintaining power, tends to reduce g since this allows the elite to lower $\phi(g_{t+1})$. Thus a general model has both the standard effects as well as the novel one of this paper. Which dominates is of course an empirical issue.

2.6. Encompassing

A simple re-interpretation of the model allows us to extend the work of Olson on encompassing.[13] The standard interpretation of this concept is the proportion of factor income which accrues to the elite, but this is exactly what θ captures. Proposition 2.1 when $\theta \in [0, \underline{\theta}]$ is the Olson case. *If* there is no threat of development disrupting the political power of the elite, *then* the more encompassing the elite is, the more likely it is that the elite will provide an efficient supply of infrastructure. However, this case is *only relevant* when the elite is *not very encompassing*. As θ increases beyond this level the incentive to undertake developmental investment is complicated by the threat of political transition. The results show that in many cases once political power is threatened, then the effect of higher θ may be to reduce the efficiency of policy. The intuition for this is simple: higher θ increases the desire of the elite to maintain power (they have more to lose) and this induces them to take actions to hold onto power - here reduce the efficiency of public investment.

3. Discussion of Results

The above model has several robust themes. Firstly, having large endowments of natural resources tends to induce elites to be predatory and would be associated empirically with poor policy.[14] Secondly, having resource endowments with a lot of assets which are complementary to public investment (in the sense that they

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[13]As noted, my formalization of encompassing follows MacGuire and Olson (1996). It begs the question: what is the difference between encompassing power and the ability to set tax rates? This issue hinges on the distortionary effects of taxation. In MacGuire and Olson (1996), if taxes are non distortionary (for example factor supplies are inelastic) then the elite sets a tax rate of unity, public goods are efficiently supplied, and encompassing is irrelevant. If taxes are distortionary then the elite sets a tax rate less than unity, public goods are inefficiently undersupplied and an increase in encompassing can promote efficiency. This latter effect occurs because encompassing does not create deadweight losses (implicitly the model assumes that there are no implications for efficiency of the distribution of property rights.)

[14]See Sachs and Warner (1995) for evidence that natural resources are associated with poor economic growth.

increase its marginal productivity), such as human capital, tends to induce good policy. Thirdly, political regimes that are intrinsically unstable, perhaps because they are illegitimate, or because society is highly mobilized politically, will tend to have bad policy. Fourthly, large benefits from political power leads to bad policy in exactly these three sets of circumstances: when a country is, (1) heavily endowed with natural resources, (2) when it is poor in assets complementary to public investment and, (3) when regimes are intrinsically unstable. Finally, the ability to redistribute income and or assets (which the model does not distinguish between) can improve policy by providing another instrument. The model predicts that, in the plausible case, observed redistribution ought to be correlated with improved public policy. Nevertheless, the introduction of such instruments does not necessarily improve policy. For example, if expropriation were desired but was very costly to implement, then the regime might simply choose $\theta = \theta_0$.

These results may help to explain some of the central empirical findings in the development literature about comparative government policy. The model suggests that the high incidence of bad (predatory) policy in sub-Sahara African countries since independence is due, firstly to the large amount of natural resources these economies possess. Secondly, to the very low levels of human capital and technological knowhow that they inherited from the colonial era. Thirdly, to the fact that the new nation states lacked legitimacy and consisted of ethnic groups which were able to solve the collective action problem. On the other hand, the model implies that the adoption of good economic policies in some East Asian economies over the same period can be explained by, firstly, their lack of natural resources. Secondly, the high levels of human capital they inherited from their period as Japanese colonies. It also seems plausible that, due to the threat of communism, ϕ_g was high in these countries. Yet the regimes in South Korea and Taiwan responded to this with asset redistribution and land reform, while Indonesia used fiscal redistribution. These measures complemented the good policies which these countries adopted. Though the states in all these countries

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did not suffer the same crises of legitimacy which has bedevilled many African countries, nevertheless they all redistributed in the face of a strong threat of communist insurrection and this is precisely case 2 of Proposition 2.3. Why did African regimes not engage in such redistribution? There seem to be a number of factors. Firstly, in many African countries land is communally owned and thus unavailable to redistribute in the same way. Secondly, land redistribution was relatively cheap in South Korea and Taiwan since in both cases land confiscated from the Japanese was available. Thirdly, as Bates (1981) has discussed and contrary to East Asia, in Africa the threat to regimes has been urban not rural and thus such redistribution as has occurred has favored urban groups. This tends to be bad for economic performance in societies with comparative advantage in agriculture. Therefore the identity of elites in these different cases may be an important difference. In the context of the model this is differences in the identities of the two groups. Finally, in many African countries there seem to be few institutional constraints on the way political power can be used (think of the examples of Bokassa and Amin) relative to East Asian countries with much longer histories of institutional development. This tends to raise the stakes of the political game (higher θ) and may lead to poor policy exactly in the other circumstances which seem to lead to poor outcomes in Africa.

4. Understanding Predatory States

4.1. Evidence

I now consider the behavior of several elites in an attempt to see if their behavior is well captured by the implications of existing models. I begin with a series of classic predatory states and then discuss developmental ones. Neither of ideas (2) and (3) in the introduction about the policy choices of dictators seem to explain the differences in policy choices. In fact, the examples suggest that both highly encompassing elites, and those with dynastic pretensions and therefore long

horizons, are the *most predatory.*[15]

First, consider the dictatorship of Rafael Trujillo in the Dominican Republic between 1930 and 1961. Wiarda (1968) observes that the Dominican government under Trujillo, "could be summarized by the single word 'grab'". During his time in power Trujillo expropriated much of the land and businesses of the country so that he eventually directly controlled about 85% of the economy (see Wiarda 1968 and Vedovato 1986) and owned 60% of all land. Nevertheless this policy did not result in the rapid economic development of the Dominican Republic nor in efficient public investment. When Trujillo was assassinated, his fortune was estimated at US$800 million compared to the then GDP of the Dominican Republic of US$634 million.

In Nicaragua, three members of the Somoza family ruled from 1937 to 1979 (see Anderson, 1964, for an overview). Starting right from the beginning, father and sons systematically expropriated land and businesses. It is estimated that they owned one third of the economy and 20% or all arable land at the beginning of the Sandinista revolution (see Crawley 1979). As Crawley (1979) notes, "It was once said that Nicaragua would be the easiest country in the world to turn socialist; a victorious revolution would only need to expropriate the holdings of a single family..it could almost be said that they *were* Nicaragua." Nicaragua was not a development miracle during this period. Indeed, the growth rate of real

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[15]There is a certain ambiguity about the way that "encompassing" is defined in practice. Is it to refer to a single individual or to some ruling coalition? To whom then does encompassing apply? The best way to get around this problem is to focus on examples where a single person or family alone is sufficiently encompassing that it provides a meaningful case study, and this is what I do. Though this idea is widely used informally, the only formal development is in McGuire and Olson (1996). Here encompassing is measured in terms of the share of factor income accruing to the ruling elite. However, in the model labor is the only factor of production. In reality, land and capital seem to be much more relevant and it is on these that I concentrate.

There is also the problem of how one deals with public sector control of the economy. This is important in most of the East Asian miracle countries, particularly Singapore and Taiwan. I think however that such interests cannot be regarded as encompassing. If they are, then the communist parties in all of the former Soviet Block countries also had an encompassing interest and the theory is obviously not meant to apply to these countries. I therefore ignore public sectors.

GDP per-capita was 0.8% during the Somoza period and this was the lowest of any country in Central or Latin America during this period (see Bulmer-Thomas, 1994 Appendix 3).

Another classic example of an encompassing interest is that of Ferdinand Marcos. Rempel (1993) argues that, "from the beginning Marcos considered the nation something of a personal preserve - to have, to exploit". During his tenure as dictator from 1965 to 1986 Marcos extended his personal ownership to practically every industry in the country. He owned controlling interests in mining, insurance, pineapple plantations, automobile distributorships, shipping lines, construction companies, hotels and banks (Manapat, 1991). Every industry was forced to pay significant proportions of profits to him, for example, cement producers were required to pay him US 50 cents for every bag of cement they sold. Despite this encompassing interest, Philippines is usually held to be the development disaster *par excellence*, particularly when viewed in the East Asian mirror. For example, in 1965 the Philippines real GDP per-capita was 103% of that of South Korea, while it was a mere 33% by 1986 (the average growth rate of real GDP per-capita over this period was 1.2%, all data from Maddison, 1995).

There seem clear examples of dictators who were established for a sufficient time and who were successful in removing all effective opposition, that their time horizon was long enough for investments to pay off. If such autocrats had commitment power then this should have stimulated good policy, if they did not, it should have made building a reputation worthwhile. Yet nothing of the sort seems to have occurred in any example that I can find.[16] For example, the Duvalier dy-

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[16]The difficulty with testing this idea is that, while, say the Duvalier or Somoza dynasty ruled for many decades, it could have been that they thought they were going to be thrown out of office at any moment. They were just lucky. Since what is relevant for the time horizon and reputation arguments is what they thought was going to happen, we cannot infer from the realized sample path that the model is wrong. The only way to challenge this is to examine actual historical evidence of how elites behaved and planned. In my reading of this evidence, both the Duvalier and Somoza regimes were entirely secure in their positions of power for many years (see Trouillot, 1990, for the Haitian case). Another important example is the Bourbon Kings who ruled France during the seventeenth and eighteenth centuries. They have become immortalized in economic

nasty of François and Jean-Claude ruled practically unchallenged in Haiti from 1957 to 1981 (see Lundahl, 1984).[17] During this period South Korea increased its per-capita income by a factor of seven while the Haitian economy stagnated. Real per-capita GDP *fell* at an annual rate of 0.1% between 1945 and 1959 and was stagnant between then and 1975 (Lundahl, 1992). Between 1985 and 1994 this figure was -5% (World Bank 1997). As with Trujillo, and the Somoza dynasty, the Duvaliers systematically expropriated wealth and property (see Lundahl and Vedovato, 1989). While all of these measures may have increased the degree to which the Duvaliers were encompassing, they appear to have done little for the Haitian economy. Other regimes were also secure, for example, Walter (1993) argues "the Somoza regime's continuation in office was threatened only at very specific moments and for relatively short periods of time....in 1944, 1947 and 1954, the years of gravest danger to the regime, Somoza had to face only certain social groups whose combined strength never got anywhere near the levels required to overthrow him and his government."

The above examples show that elites who are encompassing do not necessarily adopt efficient policies (for example with respect to the provision of public goods). These cases are all "disasters". What about "miracles"? The most important examples of development under non-representative governments have been the economies of South Korea, Singapore and Taiwan. Were the dictators in these economies encompassing, or did they have particularly long time horizons? I can find no evidence that Chiang Kai Shek, Park Chung Hee or Lee Kuan Yew were to any extent encompassing in the way the Somozas or Trujillo were, nor do any

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history by their bad policies. While the British government consolidated its finances and was able to borrow heavily at low rates following the Glorious Revolution of 1688, *Le Roi Soleil* tax farmed and attempted to inflate away his debts. This behavior led eventually to a fiscal crisis which was one of the proximate causes of the French Revolution. Yet this 'myopic' behavior of the French Kings was certainly not due to a perception on their part that their regimes were unstable.

[17]Because of the very fragmented pattern of landowning in Haiti (itself a result of the slave revolt against France) the Duvaliers were not able to expropriate land in the way Trujillo or the Somozas did.

of these leaders appear to have had dynastic aspirations.[18] Not one of the recent political economy accounts of East Asian development (see for example Amsden, 1989, on Korea, Lim et al., 1993 on Singapore, Wade, 1990, on Taiwan, and the general studies of Haggard, 1990, and Vogel, 1991) discuss these issues. This is particularly interesting since these works are specifically focused on the role of the state in economic transformation.

The existing evidence about the policies and performance of dictatorial regimes suggests that, if anything, the more encompassing the regime is, the *worse* the policies. As noted, the issue of reputation is notoriously hard to pin down, yet there seem no cases where this idea seems useful.[19] The model I have presented can help to understand these facts. In regimes where θ is high and the benefits of power are high, the incentives of the regime will be to hold onto power, not to invest. In countries with few institutional restrictions on the exercise of power θ is large and the stakes are high. Similarly, long horizons may increase the desire to maintain power with similar implications. I now turn to evidence which directly motivates the theoretical framework I presented above.

4.2. Development and Political Equilibrium

Many regimes in poor countries fail to adopt growth promoting policies and even adopt seemingly perverse policies. No doubt there are many reasons for this.[20] The

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[18]The possible exception seems to be Singapore where Lee Kuan Yew's son was at one time his likely replacement until he became ill.

[19]If could be the case that South Korean dictators were simply more patient than others, or expected to stay in power longer than a Somoza or Duvalier, but this seems hardly plausible given the precarious geo-political position of South Korea. It could also be the case that, *ceteris paribus*, the fact that Kim Il-Sung expected his son to take power in North Korea following him, improved policy. However, if this is the case, the positive effects of a long time horizon are clearly minuscule when compared to other factors in the determination of policy, so it is on these that we should concentrate.

[20]In this paper I adopt the simplifying assumption that the state always has the necessary capacity to adopt good policies and institutions if it wishes. It amounts to assuming that this capacity, if not in existence can be created, (see Evans, 1995, for discussions of 'state capacity'). See also the discussion in section 4.3. I do this because I doubt that state 'incapacity' can

general argument that I propose is that this stems from a desire to control political power. This link provides a mechanism which can help us understand predatory behavior. I focus on one way in which this manifests itself which seems uniform across all predatory regimes: the unwillingness to construct or maintain socially productive infrastructure (which is the inspiration for the model I provided).

There are many examples of this and I consider a few. One regime whose behavior fits perfectly with the model is that of the True Whig party in Liberia who ruled the country from its creation (by repatriated slaves from the US) until 1980. As Dalton (1965) concludes, "The economic backwardness of Liberia is not attributable to lack of resources or to domination by foreign financial and political interests. The underlying difficulty is rather that the traditional America-Liberian rulers who, for fear of losing political control to tribal people, have not allowed those changes to take place which are necessary to develop the national society and economy."

Perhaps the archetype of the predatory state is the one created by President Mobutu in Zaire (now the Democratic Republic of the Congo) which endured from 1965 to 1997. During this period the average growth rate of per-capita income was negative and the commercial and social infrastructure of the nation disintegrated. How could such a situation have emerged? Not only were feasible policies with high social returns not chosen but perverse policies were implemented. Mobutu saw infrastructure as increasing the ability of citizens to organize in collective action against him. Kabwit (1979) notes that the road system in Zaire had "simply disintegrated" during the Mobutu regime, with only six thousand miles left out of an original ninety thousand at the time of independence. The evidence is clear that Mobutu saw an underdeveloped, fragmented society as key to maintaining his control of the country (see, Callaghy, 1984, and Young, 1983).[21] In the context

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systematically explain bad policy.

[21]President Mobutu and his family also acquired a large amount of wealth. Turner and Young (1985, p179-181) record that Mobutu's conglomerate CELZA owner about 26% of rubber output, 23% of cocoa, 15% of tea and 13% of palm oil. It and related interests were also estimated to

of the Mobutu regime Evans (1995) argues, "Extracting a larger share from a shrinking pie is not the optimal way to maximize revenues, but it may be the only way consistent with the survival of predatory states. The disorganization of civil society is the sine qua non of political survival for predatory rulers. Generating an entrepreneurial class with an interest in industrial transformation would be almost as dangerous as promoting the political organization of civil society. For predatory states, "low-level equilibrium traps" are not something to be escaped; they are something to be cherished." Callaghy (1984, p8-9) discussing Zaire notes "The primary concern of the leadership of authoritarian regimes is to avoid making decisions that might permanently mobilize the opposition of a significant sector of the authoritarian coalition."

Mobutu's way of thinking about infrastructure is very common in predatory regimes.[22] In Haiti under the Duvaliers there were 500 miles of roads in 1959 but only 370 by 1969 (Chirot, 1994). In the Dominican Republic Trujillo avoided building any roads to villages in the countryside which would help to integrate them into the modern economy (see Wiarda, 1968). Van de Walle (1993) describes how the Francophone political elites of post independence Cameroon fits well with my model. For example (p367-368), "Economic development was inhibited when it appeared to favor certain groups unduly. Thus in order to temper the development of Bamiléké and more generally southern economic power, Ahidjo

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hold almost 50% of national cattle holdings. Callaghy (1984, p179) records that in the 1970's Mobutu put aside between 17% and 22% of the government budget for his personal use.

[22]It might be thought that a positive aspect of road building would be that a dictator would be able to move his troops around better. Nevertheless, this effect seems to be dominated by the one I propose in this paper. One clear reason for this is that the military of many dictators is deliberately kept highly ineffectual because otherwise it might pose a threat to the regime. For example in the case of Zaire Thomas and Young (1985, p248) argue "the hegemony and power of the state rest upon the force it controls, but that force is unreliable in times of crisis, its depredations undermine the credibility of the state, and its capricious actions may threaten the state itself." Similarly, Callaghy (1984, p418) notes "Mobutu has been quite successful at controlling his military leaders so far, but the techniques he uses have directly retarded growth in military effectiveness." Callaghy himself sums up the situation nicely when he notes (p16) "By controlling participation, actually by organizing 'departicipation' less outright coercion may have to be used."

[the country's first president after independence] always refused to pave the road between Yaoundé and Douala, the two biggest cities in the country, or the one between Yaoundé and Bafoussam in the heart of the Bamiléké region of the Western Highlands. Similarly, the need....to regulate the governing elite and to prevent any individual or group from developing undue power resulted in rapid turnover of high-level political and administrative personnel. Tenure in any position was kept short to prevent the holder from developing an autonomous power base."

It might be thought that Mobutu's and the Duvaliers attitude to roadbuilding might be limited to the modern age, but it is not. There are many examples where rulers opposed the provision of infrastructure for the same reasons, prominent examples being Tzar Nikolai I between 1825 and 1855 in Russia and Metternich when he was chancellor of the Habsburg Empire during the reign of Francis I in the period before the 1848 revolutions. During the period of frantic industrialization and railway building in Britain, the United States and Germany, these two great empires built only one railway each. In a classic description Gerschenkron (1970) notes about Austria-Hungary, "economic progress began to be viewed with great suspicion and the railroads came to be regarded, not as welcome carriers of goods and persons, but as carriers of the dreaded revolution. Then the State clearly became an obstacle to the economic development of the country." For the Russian case, Gregory (1991) argues, "Prior to the about face in the 1850's, the Russian state feared that industrialization and modernization would concentrate revolution minded workers in cities, railways would give them mobility, and education would create opposition to the monarchy."[23]

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[23]For more evidence on the Russian case see McDaniel (1988) and Mosse (1992). For Austria-Hungary, see Fruedenberger (1967), Gross (1973) and Good (1991). By 1850 Russia had only 501km of track and Austria-Hungary 1,357km. The United States had 14,518km and Britain 9,797km (see Mitchell, 1993).

5. Concluding Thoughts

In this paper I have constructed a theory of endogenous government policy which can help us understand the cross-country patterns of development. What we really need to understand is why is it that some states are developmental while some are predatory. In this paper I have proposed what I think is an important intuition which may guide our understanding of elite policy choice: this is that economic development and political power cannot be separated. If development changes the political equilibrium, then this may deter elites from creating institutions and adopting policies which stimulate development.

The model focuses on non-democratic regimes. How does the preceding analysis relate to democratic governments? Though one can build models where policy choice in a democracy depends critically on its future impact [24], there seems little evidence that the type of mechanisms that I have emphasized operate in reality. Predatory states seem to only arise in non-democracies and it seems likely that the types of institutional transitions that occur with democratization inhibit in the use of such socially undesirable strategies as the ones I have modelled.

References

Acemoglu, Daron and James A. Robinson (2000) "Why Did the West Extend the Franchise? Growth, Inequality and Democracy in Historical Perspective," *Quarterly Journal of Economics*, 115, 1167-1199.

Aghion, Philippe and Patrick Bolton (1990) "Government Debt and the Risk of Default," in Rudiger Dornbusch and Mario Draghi eds. *Public Debt Management: Theory and History*, Cambridge University Press, Cambridge UK.

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[24]Aghion and Bolton (1990), Perotti (1994) and Besley and Coate (1998) have all examined how the repercussions of government policy on subsequent political equilibrium may be important and moreover, may impede the adoption of efficient policies, though they develop models very different to the one of this paper. In particular, none of them consider the impact of policies on collective action which has been central to my argument. It is clear, however, that collective action is an important political force, not just for non-democratic governments, as the US civil rights movement of the 1960's should remind us.

Amsden, Alice H. (1989) *Asia's Next Giant: South Korea and Late Industrialization*, Oxford University Press, New York.

Anderson, Charles W. (1964) "Nicaragua: The Somoza Dynasty," in Martin C. Needler ed. *Political Systems of Latin America*, Princeton University Press, Princeton NJ.

Aoki, Masahiko, Hyung-Ki Kim and Masahiro Okuno-Fujiwara (1997) *The Role of Government in East Asian Economic Development*, Oxford University Press, Oxford UK.

Barro, Robert J. (1996) "Democracy and Growth," *Journal of Economic Growth*, 1, 1-28.

Bates, Robert H. (1981) *Markets and States in Tropical Africa*, University of California Press, Berkeley CA.

Besley, Timothy and Stephen T. Coate (1998) "Efficient Policy Choice in a Representative Democracy: A Dynamic Analysis," *American Economic Review*, 88, 139-156.

Bourguignon, Francois and Thierry Verdier (2000) "Oligarchy, Democracy, Inequality and Growth," *Journal of Development Economics*, 62, 285-313.

Bulmer-Thomas, Victor (1994) *The Economic History of Latin America since Independence*, Cambridge University Press, New York.

Callaghy, Thomas M. (1984) *The State-Society Struggle: Zaire in Comparative Perspective*, Columbia University Press, New York.

Campos, J.Edgar and Hilton L. Root (1996) *The Key to the East Asian Miracle: Making Shared Growth Credible*, Brookings Institution, Washington DC.

Chirot, Daniel (1994) *Modern Tyrants*, Princeton University Press, Princeton NJ.

Coate, Stephen T. and Stephen E. Morris (1995) "On the Design of Transfers to Special Interests," *Journal of Political Economy*, 103, 1210-1235.

Crawley, Eduardo (1979) *Dictators Never Die: A Portrait of Nicaragua and the Somoza Dynasty*, St. Martin's Press, New York.

Dalton, George H. (1965) "History, Politics and Economic Development in Liberia," *Journal of Economic History*, 25, 569-591.

Davidson, Basil (1992) *The Black Man's Burden: Africa and the Curse of the Nation State*, James Currey, London UK

Easterly, William and Ross Levine (1997) "Africa's Growth Tragedy: Policies and Ethnic Divisions," *Quarterly Journal of Economics*, 112, 1203-1250.

Evans, Peter B. (1989) "Predatory, Developmental, and Other Apparatuses: A Comparative Political Economy Perspective on the Third World State," *Sociological Forum*, 4, 561-587.

Evans, Peter B. (1995) *Embedded Autonomy*, Princeton University Press, Princeton NJ.

Freudenberger, Herman (1967) "State Intervention as an Obstacle to Economic Growth in the Habsburg Monarchy," *Journal of Economic History*, 27, 493-509.

Gerschenkron, Alexander (1970) *Europe in the Russian Mirror: Four Lectures in Economic History*, Cambridge University Press, Cambridge UK.

Good, David F. (1991) "Austria-Hungary," in R. Sylla and G. Toniolo eds. *Patterns of European Industrialization*, Routledge, New York.

Gregory, Paul R. (1991) "The Role of the State in Promoting Economic Development: The Russian Case and its General Implications," in Richard Sylla and Gianni Toniolo eds. *Patterns of European Industrialization*, Routledge, New York.

Greif Avner (1995) "Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Traders' Coalition," *American Economic Review*, 83, 535-548.

Gross, Nachaum (1973) "The Industrial Revolution in the Habsburg Monarchy, 1750-1914," in Carlo M. Cipolla ed. *The Fontana Economic History of Europe, Volume 4,* Fontana Books, London,.

Grossman, Herschel I. (1991) "A General Equilibrium Theory of Insur-

rections," *American Economic Review*, 81, 912-921.

Grossman, Herschel I. (1993) "Production, Appropriation and Land Reform," *American Economic Review*, 84, 705-712.

Grossman, Herschel I. and S.J. Noh (1994) "Proprietary Public Finance and Economic Welfare," *Journal of Public Economics*, 53, 187-204.

Haggard, Stephan (1990) *Pathways from the Periphery*, Cornell University Press, Ithaca NY.

Horowitz, Donald L. (1985) *Ethnic Groups in Conflict*, University of California Press, Berkeley CA.

Kabwit, G. (1979) "Zaire: The Roots of the Continuing Crisis," *Journal of Modern African Studies*, 17, 381-407.

Krueger, Anne O. (1993) *The Political Economy of Policy Reform in Developing Countries*, MIT Press, Cambridge MA.

Lal, Deepak and Hla Myint (1996) *The Political Economy of Poverty, Equity and Growth*, Oxford University Press, Oxford UK.

Levi, Margaret (1988) *Of Rule and Revenue*, University of California at Berkeley Press, Berkeley, CA.

Lim, L., P.E. Fong and Ronald Findlay (1993) "Singapore" in Ronald Findlay and Stanislaw Wellisz eds. *The Political Economy of Poverty, Equity and Growth: Five Small Open Economies*, Oxford University Press, New York.

Lundahl, Mats (1984) "Papa Doc: Innovator in the Predatory State," *Scandia*, 50, 39-78.

Lundahl, Mats (1992) "Introduction," in his *Politics or Markets? Essays on Haitian Underdevelopment*, Routledge, New York.

Lundahl, Mats and Claudio Vedovato (1989) "The State and Economic Development in Haiti and the Dominican Republic," *Scandinavian Economic History Review*, 37, 39-59.

Maddison, Angus (1995) *Monitoring the World Economy*, OECD, Paris.

Manapat, Ricardo (1991) *Some are Smarter than Others - The History of*

Marcos' Crony Capitalism, Aletheia Publications, New York.

McDaniel, Timothy (1988) *Autocracy and Modernization in Russia*, Princeton University Press, Princeton NJ.

McGuire, Martin C. and Mancur C. Olson (1996) "The Economics of Autocracy and Majority Rule," *Journal of Economic Literature*, 34, 72-96.

Mitchell, Brian R. (1993) *International Historical Statistics*, Stockton Press, New York NY.

Mosse, W.E. (1992) *An Economic History of Russia, 1856-1914,* L.B. Taurus Press, London UK.

North, Douglass C. (1981) *Structure and Change in Economic History*, W.W. Norton & Co., New York.

Olson, Mancur C. (1982) *The Rise and Decline of Nations*, Yale University Press, New Haven, CT.

Olson, Mancur C. (1993) "Dictatorship, Democracy and Development," *American Political Science Review*, 87(3), p 567-576.

Perotti, Roberto (1993) "Political Equilibrium, Income Distribution and Growth," *Review of Economic Studies*, 60, 755-776.

Persson, Torsten and Guido Tabellini (2000) *Political Economics: Explaining Economic Policy*, Cambridge; MIT Press.

Przeworski, Adam and Fernando Limongi (1993) "Political Regimes and Economic Growth," *Journal of Economic Perspectives*, 7, 51-70.

Rajan, Ragu and Luigi Zingales (1996) "The Tyranny of the Inefficient: An Inquiry into the Adverse Consequences of Power Struggles," Graduate School of Business, University of Chicago.

Rempel, William C. (1993) *Delusions of a Dictator*, Little Brown and Co., Boston.

Rodrik, Dani (1995) "Getting Interventions Right: How South Korea and Taiwan Grew Rich," *Economic Policy*, 20, 55-107.

Rodrik, Dani (1996) "Understanding Economic Policy Reform," *Journal of*

Economic Literature, 34, 9-41.

Rodrik, Dani (1998) *The New Global Economy and Developing Countries: Making Openness Work,* ODC Economic Development Policy Essay No. 24, Washington DC.

Roemer, John E. (1985) "Rationalizing Revolutionary Ideology: A Tale of Lenin and the Tsar," *Econometrica*, 53, 85-108.

Sachs, Jeffery D. and Andrew Warner (1995) "Natural Resource Abundance and Economic Growth," HIID Development Discussion Paper No. 517, Harvard University.

Sachs, Jeffery D. and Andrew Warner (1997) "Sources of Slow Growth in African Economies," *Journal of African Economics*, 6, 335-376.

Skaperdas, Stergios (1992) "Cooperation, Conflict, and Power in the Absence of Property Rights," *American Economic Review*, 82, 720-739.

Trouillot, Michel-Rolph. (1990) *Haiti, State Against Nation: The Origins of Duvalierism*, Monthly Review Press, New York.

Turner, Thomas and Crawford Young (1985) *The Rise and Decline of the Zairean State*, University of Wisconsin Press, Madison WI.

van de Walle, Nicholas (1993) "The Politics of Nonreform in the Cameroon," in Thomas M. Callaghy and John Ravenhill eds. *Hemmed In: Responses to Africa's Economic Decline*, Columbia University Press, New York, NY.

Vedovato, Claudio (1986) *Politics, Foreign Trade and Economic Development: A Study of the Dominican Republic*, MacMillan, London.

Vogel, Ezra F. (1991) *Four Little Dragons: The Spread of Industrialization in East Asia*, Harvard University Press, Cambridge MA.

Wade, Robert (1990) *Governing the Market: Economic Theory and the Role of the Government in East Asian Industrialization*, Princeton University Press, Princeton NJ.

Walter, Knut (1993) *The Regime of Anastasio Somoza: 1936-1956*, University of North Carolina Press, Chapel Hill.

Wiarda, Howard (1968) *Dictatorship and Development: The Methods of Control in Trujillo's Dominican Republic*, University of Florida Press, Gainesville.

Wintrobe, Ronald (1998) *The Political Economy of Dictatorship*, Cambridge University Press, Cambridge UK.

World Bank (1993) *The East Asian Miracle: Economic Growth and Public Policy*, Washington DC.

World Bank (1997) *World Development Report*, Washington DC.

Young, Crawford (1983) "Zaire: The Politics of Penury," *SAIS Review*, 3, 115-130