

Robinson, James A.

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WHEN IS A STATE PREDATORY?

James A. Robinson*

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*Center for Economic Studies
University of Munich
Schackstr. 4
80539 Munich
Germany
Telephone & Telefax:
+49 (89) 2180-3112*

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WHEN IS A STATE PREDATORY?

Abstract

I argue that whether or not a state is "predatory" hinges on the relationship between development and the distribution of political power in society. Development is typically inconsistent with the preservation of the political status quo and this gives those who initially hold political power an incentive to oppose it. I show that, contrary to the conventional wisdom, the likelihood of predatory behavior may be *positively related* to the extent to which a regime is encompassing and values the future. The model also predicts that the lower is the level of income, and the more unequal is society, the *more likely* the state is to be predatory. Initial inequality, since it influences the likelihood of political transition, is a crucial determinant of policy choice. I also show how factor endowments influence policy: states in economies relatively endowed with natural resources, or where the elite's wealth is concentrated in land, are more likely to be predatory.

Keywords: development, political economy, autocracy, democracy

JEL Classifications: D3, D78, O11, O33

James A. Robinson
Department of Economics
University of Southern California
Los Angeles, CA 90089
USA
e-mail: jarobins@rcf.usc.edu

"I told you not to build any roads..building roads never did any good..I've been in power in Zaire for thirty years and I never built one road. Now they are driving down them to get you."

- remarks made by President Mobuto Sese Seko to President Juvenal Habyarimana of Rwanda in response to a request for armed support to help fight an insurgency (quoted in *Jeune Afrique*, 1991).

"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."

- Peter Evans (1995)

1. Introduction

This paper proposes a theory of the relationship between endogenous government policy and economic development. The recent literature on economic growth has emphasized the role of government policy in promoting or impeding development¹, yet we do not understand what *causes* good or bad policy². In this paper I restrict attention to non-representative regimes (this case seems most relevant for developing countries) where the political system is controlled by some agent or group,

¹See Robinson 1997a.

²For example, there seems to be no robust empirical relationship between policy and regime type. As we know from both stylized facts, and more formal empirical work, the relationship between dictatorial, democratic regimes, and economic growth, is ambiguous. At an anecdotal level there are examples of economically successful democracies, such as most OECD countries, and also economically unsuccessful ones, such as Costa Rica or India. Similarly, while it is easy to think of autocratic regimes such as Haiti or Zaire, which have performed disastrously, there are others, recent examples being Singapore, South Korea and Taiwan, which have experienced extraordinary growth. These ambiguities are replicated in the formal econometric research on this topic (see Barro 1996, Helliwell 1995 and Przeworski and Limongi 1993).

a “dictator”, an “autocrat”, or, the word I will use, an “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 wealth³. Why cannot elites separate efficiency and distribution? I provide a new answer to this question: I argue that the key reason why such a government may not choose a policy which promotes economic development is that such policies affect the distribution of political power in society. This may change the subsequent political equilibrium in a way which may be disadvantageous so that the elite may benefit more from retaining political power than promoting development.

If developmental policy (such as building infrastructure and promoting free trade) and institutions (such as secure property rights and an efficient bureaucracy) is inconsistent with the maintenance of the political status quo, then this gives elites an incentive to be “predatory”,⁴ though this incentive may be dominated by the costs of being predatory. The paper provides a precise model of how development and political equilibrium interact and I use this to study the conditions under which a state is predatory or developmental. To build a model I focus on one aspect of this issue, the fact that providing public goods, such as infrastructure, increases the ability of citizens to contest elite control and political power through collective action. In section 4.3 I document the importance of this factor in determining the policy decisions of predatory states. There I also discuss other factors. I show that predatory behavior is likely to emerge in societies which are unequal, with low initial income levels, where elites tend to be landowners, and with relative factor endowments which are biased towards natural resource. I argue that this model can help us clarify why we have seen developmental elites in East Asia and predatory ones in Africa.

The most central evidence that development affects the political equilibrium is the robust empirical finding that democracy and per-capita income are positively related (see Barro 1996, Helliwell 1995 and Rueschemeyer et al. 1992). This

³In 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 Safford, 1976, and 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 systematically explain bad policy.

⁴I use the word “developmental” to describe an elite which promotes development, and “predatory” to describe one that does not. I shall also use the terms elite and state interchangeably.

suggests that some aspect of development tends to induce political transition. Historically, all existing democratic regimes have evolved out of political regimes controlled by some form of elite. Thus development has a tendency to induce elites to extend political power to the rest of society. While I think there are many aspects of this process (see section 4.3), one clear causal channel on which I focus, works through the effects of developmental policies on the costs and benefits of collective action. These policies, by improving infrastructure, education and communication, inducing urbanization, by bringing workers together in factories, makes it much easier for groups opposed to the regime to engage in successful collective action. Indeed, this is presumably the issue which concerned President Mobutu most. In a influential discussion of this 'modernization' view, Huntington (1968) notes,

"Social and economic change - urbanization, increases in literacy and education, industrialization, mass media expansion - extend political consciousness, multiply political demands, broaden political participation. These change undermine traditional sources of political authority and traditional political institutions."

Developmental policies may therefore reduce the costs of contesting political power. They also alter benefits: non-democratic development is frequently accompanied by the accumulation of assets and wealth in the hands of a few, and this raises the attractiveness of collective action to expropriate wealth or gain political power (at least under the reasonable assumption that at least part of the motivation for aspiring to political power is materialistic.)

What determines whether elites are predatory or developmental? The literature has argued that elites are more likely to be developmental the more "encompassing" they are in the economy (in the sense of the proportion of factor income that accrues to them) and the longer their time horizons. Unfortunately, neither of these ideas seem empirically correct. As I argue in section 4.2, almost the opposite seems to be true and this stems from an incomplete formalization of the costs and benefits of predatory rule. Studying the motivation behind actual examples of predatory policy, as I do in section 4.3, illustrates this. Once one models this, it is possible that the results are the opposite of the existing ones: the *more encompassing an elite* and the *longer its time horizon*, the *more likely* it is to be predatory.

In the model I develop, the government can promote development by supplying public goods, but doing so reduces the costs of collective action on the part of citizens (who can contest political power at a cost.) Anticipating this, an initial ruling elite has an incentive to undersupply public goods since the loss from underdevelopment is compensated by maintaining political power⁵. Elites are not necessarily predators in this model. However, in certain parts of the parameter space, the more encompassing they are, the more likely they are to be so since the more encompassing they are, the more they have to lose from the loss of political power, and the more their actions influence the future political equilibrium. I show that the positive effects of encompassing (modeled as in MacGuire and Olson, 1996) only unambiguously operate when the elite are not threatened by future political transition, and that this occurs *only at low degrees of encompassing*⁶. 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 are developmental. This is so since predatory behavior may entail taking inefficient actions today in order to preserve political power in the future. Hence, the more the future is valued, the more the maintenance of political power is valued, and the more likely it is that the state will be predatory.

I also show that both the distribution and level of income is crucial for determining the outcome of the political equilibrium. If income distribution is initially equal then there is less chance of collective action in the future and less chance of a change in the political equilibrium. This makes an elite more likely to be developmental. I also investigate the incentives for an elite to redistribute in order to influence the future political equilibrium. I show that redistribution, rather than predation, can be an equilibrium if initial inequality is not too severe. These last two results are, I argue, key to understanding why we have seen developmental elites in Singapore, Taiwan and South Korea. Moreover, higher initial income levels increase the opportunity cost of being predatory.

The model has the implication that the form in which an elite is encompassing matters, as do the relative factor endowments of the economy. The more land the

⁵Put simply, the size of the "pie" and the ability of elites to expropriate the pie are not independent and the massive potential Pareto improvement of development does not become actual.

⁶MacGuire 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. This is why the positive effects of encompassing are not general.

elite owns, the more likely it is to be predatory (relative to owning capital.) Factor endowments are important because of the differential effect developmental policy has on different assets. For example, infrastructure investment may have a large impact on the value of physical and human capital, but little impact on the returns from mineral wealth (with land being somewhere in-between.) Thus a state in an economy relatively well endowed with natural resources has less to lose from being predatory. This insight is important in helping to understand the difference between predatory states in many African countries and the developmental states in East Asia.

The paper proceeds as follows. In Section 2 I proceed immediately to developing the model and Section 3 discusses how the model helps us understand predatory behavior and some related literature. Section 4 then returns to discuss the evidence on which this paper is based (I discuss the issues in much more detail than is possible here in Robinson 1997b.) Section 4.1 briefly discusses the implications of the basic existing theoretical model of predatory states and section 4.2. confronts them with evidence. Section 4.3 then presents evidence about the interrelationship between development and political equilibrium and how this conditions policy choice. Section 5 concludes, in particular by discussing the relationship between the theory of government policy choice developed here and models of policy choice in democratic systems.

2. A Formal Model

I now develop a model of the incentives of an elite to promote development, in the sense of the provision of productive public goods/infrastructure. The benefit of development is that investment in public goods is socially productive and increases elite income. The cost is that investment also changes the nature of the future political equilibrium. I assume that the political power of the elite is constrained by the ability of citizens to mobilize against it, and it is this that is altered by the provision of public goods.

If the threat of collective action becomes real, then the elite can in general respond in many ways. One way is by extending political rights to citizens. This is the idea developed in Acemoglu and Robinson (1996). However, there are many other instruments that could be imagined. For example, rather than extending political rights, the elite might just give transfers. Alternatively, the elite might try to use force to repress the citizens. In the present study I do not model all these

possibilities. The point of the paper is to show that being predatory is another strategy that an elite can use to maintain political power (and in fact that this is the best intuition for thinking about the propensity for states to be predatory) and I study the circumstances under which this is preferred to two other strategies of historical and contemporary relevance: firstly, extending voting rights so that the citizens can vote for enough redistribution to defuse the threat of collective action⁷, and secondly, initially redistributing the rights to income flows with the aim of affecting the future political equilibrium. It is useful to think of the latter as land reform.

2.1. Fundamentals

The model is a discrete time infinite horizon economy. There are two types of agents: L citizens, superscripted c , and members of an elite, normalized to size one, superscripted e . Political power is initially held by the elite. All agents have linear utility functions defined over consumption of a single consumption good (which is numeraire), $\sum_{t=0}^{\infty} \delta^t c_t^i$ for $i = c, e$ where $\delta \in (0, 1)$ is the subjective rate of time preference. There is an exogenous endowment of k units of an asset ('capital') in each period which cannot be consumed, but can be used to produce the consumption good. I assume that there is a competitive factor market for capital. Capital is perishable and there is no storage technology, so there is no saving in the model.

Citizens are endowed with an equal share of the total endowment of capital and this can be invested in one of two linear technologies, a 'formal' one which generates a marginal return of $A(G)$ and an 'informal' one with marginal productivity B . I assume $A(G) > B > 0$ ⁸. Productivity of the formal technology can be increased if the government invests in a public good ('infrastructure'), denoted G . Investment in infrastructure is lumpy with $G \in \{0, g\}$. If the government invests G then the endowment of capital produces $A(G)k$ if completely invested in the

⁷One could associate this with Disraeli's strategy of franchise extension as opposed to Bismarck's strategy of creating a welfare state to appease urban workers. In making the assumption that democracy is created in response to political and social unrest I follow Acemoglu and Robinson (1996) who build on the work of Moore (1966), Therborn (1977) and Rueschemeyer et al. (1992).

⁸The role of the informal technology is to make the supply of the endowment elastic with respect to the tax rate when I consider the democratic equilibrium. Later in the paper I provide several interpretations of the relationship between the formal and informal technologies.

formal sector. I assume $A(g) > 1 > A(0) > 0$. An investment of g is made once, is irreversible and never depreciates so that the technology is $A(g)$ forever. Hence, investment will be socially efficient if,

$$\frac{k}{1-\delta} [A(g) - A(0)] > g$$

I shall begin by assuming that this inequality is satisfied.

Assumption 1: $G = g$ is socially efficient.

In each period each citizen is only able to expropriate a proportion $1 - \varphi$ of the income from this endowment with the elite expropriating the remaining φ . Thus $\varphi \in [0, 1]$ measures the degree to which the elite is encompassing in the economy, defined as the proportion of factor income flowing to the elite. Therefore, an investment of k/L by a citizen produces an output of $A(G)k/L$ units of the consumption good of which the citizen gets $(1 - \varphi)A(G)k/L$ and the elite $\varphi A(G)k/L$ ⁹.

Citizens also decide whether or not to engage in collective action to expropriate the endowments of the elite. Any citizen will do so if the payoff to doing so is higher than not doing so. I assume that collective action always succeeds and that total output is shared equally between the citizens with the elite getting nothing. However, collective action is costly and therefore in this process a proportion $1 - \mu(G)$ of output is destroyed, where $\mu(G) \in [0, 1]$. μ takes on two values, $\mu(g) > 0$ and $\mu(0) = 0$, so that collective action is less costly when there is a greater supply of public goods. I assume that the value μ takes in any period is determined at the start of the period by G in the previous period.

The elite in any period can decide on whether or not to give away political power and create a democracy and whether or not to give away part of their rights

⁹As 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.)

to income flows (i.e. give away part of φ .) If the elite introduces democracy then the tax rate is chosen by the median voter, who is a citizen¹⁰. I assume that the median voter picks the parameters of a negative income tax and all agents must be treated identically. The tax rate is chosen to maximize the utility of the median voter, which is here equivalent to maximizing the median voter's income, $(1-t)(1-\varphi)A(G)k/L + \tau$. The existence of the informal sector technology stops the optimal tax rate being unity. Given the linearity of both 'technologies' the optimal tax rate for the median voter must satisfy the equation, $(1-t)A(G) = B$ so that the marginal returns are equal. A tax rate which solves this equation leaves agents indifferent between placing their endowment in the formal and informal sectors, and I shall assume that indifference is broken by all the endowment being allocated to the formal sector. The government budget constraint is, $(L+1)\tau = t\varphi A(G)k + \frac{t(1-\varphi)A(G)k}{L}L = tA(G)k$, so that the per-capita transfer is,

$$\tau = \frac{(A(G) - B)k}{L+1}$$

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

1. the elite decide whether or not to invest in infrastructure (if they have not already invested), whether or not to extend the franchise (if they have not already done so), and whether or not to redistribute rights to income flows. If they decide not to extend the franchise they also set the tax rate¹¹.
2. the citizens decide whether or not to initiate a revolution. If there is a revolution they share the remaining output. If there is no revolution and the franchise has been extended, the tax rate is set by the median voter (a citizen).
3. capital is allocated between market and home production, incomes are realized and consumption takes place.

2.2. Analysis

The model defines a discounted infinitely repeated game between the elite and the citizens (since all citizens are identical I only need to consider the strategy of a single citizen.) I characterize the pure strategy Markov Perfect equilibria of this

¹⁰I assume that if democracy is created it is never reversed because it forever changes the political equilibrium (see Acemoglu and Robinson, 1996.)

¹¹Since the elite are relatively rich and since all agents must be treated equally, then when the elite can decide on taxes they will always choose a zero tax rate and zero redistribution.

game. The state of the system consists of the current opportunity for revolution, represented by either $\mu(g)$ or $\mu(0)$, and the political state (democracy or elite control). More formally, let $\sigma^e(\mu(G), \Omega)$ be the actions taken by the elite when the state is $\mu(G) = \mu(g)$ or $\mu(0)$, and $\Omega = E$ (elite in power) or T (democracy). This consists of an investment decision if $\mu(G) = \mu(0)$, a decision to create a democracy, ϕ when $\Omega = E$, and redistribution policy Θ . Here a value of Θ , is denoted $\theta \in [0, 1]$ and represents the amount of φ which is given away to citizens. Clearly, if $\phi = 0$, Ω remains at E and if $\phi = 1$, Ω switches to T forever. Similarly, $\sigma^c(\mu(G), \Omega|G, \phi, \Theta)$ are the actions of a citizen which consist of a decision to initiate a revolution, ρ ($\rho = 1$ representing a revolution), and a tax rate t^c when the political state is $\Omega = T$. These actions are conditioned on the current actions of the elite who move before the citizens according to the timing of events above. Then, a pure strategy (Markov Perfect) equilibrium is a strategy combination, $\{\sigma^c(\mu(G), \Omega), \sigma^e(\mu(G), \Omega|G, \phi, \Theta)\}$ such that σ^c and σ^e are best-responses to each other for all $\mu(G)$ and Ω .

Define $V^c(R)$ to be the present discounted value of a citizen if there is a revolution (starting in state $\mu(g)$, since this is the only state in which a revolution will occur). Then,

$$V^c(R) = \frac{\mu(g)A(g)k}{(1-\delta)L} \quad (2.1)$$

Since the elite lose everything, $V^e(R) = 0$.

I shall now assume that in the case of democracy the redistribution created is sufficient to avoid collective action. This is essentially assuming that the ‘exit technology’ is not too productive, or that B is relatively low, so that the democratic tax rate is high enough. This can be seen from the formula in the assumption since, $\mu(g) > 1 - \varphi$ in the relevant range and $A(g) > B$, implies that, $B(1 - \varphi) - \mu(g)A(g) < 0$ and thus the assumption cannot hold unless $A(g) - B$ is sufficiently large to generate a τ which is big enough to avoid collective action.

Assumption 2: $B(1 - \varphi)\frac{k}{L} + \frac{(A(g)-B)k}{L+1} > \frac{\mu(g)A(g)k}{L}$.

Notice that if Assumption 2 does not hold then, when (2.6) binds, the elite will always behave in a predatory way¹². From this it follows that $V^c(T)$, the

¹²Interestingly, an elite is predatory either when political transition faces it with too much redistribution (which is the case I examine below in depth), or in circumstances when it knows

present discounted value of a citizen under democracy, is,

$$V^c(T) = \frac{(1 - \varphi)Bk/L + (A(g) - B)k/(L + 1)}{1 - \delta} \quad (2.2)$$

and, for the elite,

$$V^e(T) = \frac{\varphi Bk + (A(g) - B)k/(L + 1)}{1 - \delta} \quad (2.3)$$

When the elite are in power, and the state is $(\mu(g), E)$, we have,

$$V^c(\mu(g), E) = (1 - \varphi)A(g)k/L + \delta V^e(\mu(g), E) \quad (2.4)$$

and,

$$V^e(\mu(g), E) = \varphi A(g)k + \delta V^c(\mu(g), E) \quad (2.5)$$

Solving,

$$V^c(\mu(g), E) = \frac{(1 - \varphi)A(g)k/L}{1 - \delta}$$

A revolution occurs if, $V^c(R) > V^c(\mu(g), E)$, or if,

$$\mu(g) > 1 - \varphi \quad (2.6)$$

If (2.6) binds as an equality, so that citizens are indifferent between the status-quo and initiating collective action, I assume they accept the status-quo. Define φ^* to be the degree of encompassing at which (2.6) binds with $G = g$. This is defined by (2.7).

$$\mu(g) = 1 - \varphi^* \quad (2.7)$$

For all $\varphi \in [0, \varphi^*)$ constraint (2.6) is slack. Now note that when the elite is unconstrained by the threat of future collective action it chooses $G = g$ if,

$$\frac{\varphi k}{1 - \delta} [A(g) - A(0)] > g \quad (2.8)$$

define, $\underline{\varphi}$ such that, $\underline{\varphi}k [A(g) - A(0)] = g(1 - \delta)$.

Assumption 3: $\underline{\varphi} < \varphi^*$.

that democracy will generate too little redistribution to stop collective action.

Assumption 3 assures that in the regime where the threat of collective action is not important, at some level of encompassing the elite finds it advantageous to provide public goods. From the analysis so far, we immediately have the following important preliminary result. Henceforth, I shall refer to situations where the elite chooses $G = g$ to be those where it is *developmental*, while if it sets $G = 0$ I shall refer to it as *predatory*¹³. When (2.6) is slack, the value function for the elite, denoted $V^e(U; \varphi)$, is given by,

$$V^e(U; \varphi) = \frac{\varphi A(g)k}{1 - \delta} - g$$

I now argue that the following strategies constitute a Markov Perfect equilibrium of the game. If $\varphi \in [0, \underline{\varphi}]$ the elite plays $\sigma^e(\mu(0), E) = (G = 0, \phi = 0, \Theta = 0)$ and the citizens play $\sigma^c(\mu(0), E|0, 0, 0) = (\rho = 0)$. If $\varphi \in (\underline{\varphi}, \varphi^*]$ then the elite plays $\sigma^e(\mu(0), E) = (G = g, \phi = 0, \Theta = 0)$ and $\sigma^e(\mu(g), E) = (G = 0, \phi = 0, \Theta = 0)$ and the citizens play $\sigma^c(\mu(0), E|g, 0, 0) = (\rho = 0)$ and $\sigma^c(\mu(g), E|0, 0, 0) = (\rho = 0)$. I denote these two strategy profiles $\{\sigma^e(0), \sigma^c(0)\}$ and $\{\sigma^e(g), \sigma^c(g)\}$ respectively¹⁴. Off the equilibrium path actions are trivial in this case. For example, if the elite deviates in $\{\sigma^e(0), \sigma^c(0)\}$ by setting $G = g$, then the citizens start a revolution in the subsequent period unless either democracy is extended, or rights to income flows are redistributed sufficiently for (2.6) to go slack.

Proposition 2.1. *Under Assumptions 1 and 3, for $\varphi \in [0, \underline{\varphi}]$ the strategy profile $\{\sigma^e(0), \sigma^c(0)\}$ constitutes the unique Perfect Markov equilibrium, while for $\varphi \in (\underline{\varphi}, \varphi^*]$, the profile $\{\sigma^e(g), \sigma^c(g)\}$ constitutes the unique Perfect Markov equilibrium in which the State is Developmental and chooses $G = g$. In the interval $\varphi \in [0, \varphi^*]$, the more encompassing is the elite, the more likely it is that it will provide an efficient supply of public goods.*

The proof of this result is easy to establish from the derivation of the above value functions. When φ is small, the level of public goods provision is such that

¹³The way the model is written, when φ is small, G will be zero (or very small if one allowed for a continuous choice). A simple way of removing this implication is to allow the elite to tax the citizens in addition to already owning a certain proportion of factor income.

¹⁴Notice that citizens cannot credibly induce the elite to either set $G = g$ when $\varphi \in [0, \underline{\varphi}]$, or to extend democracy, or redistribute claims to income flows, by threatening with a revolution. This is so because in state $\mu(0)$, the payoff from a revolution is zero for citizens

the collective action constraint does not bind. In this region the elite chooses G in an unconstrained way to maximize utility. Proposition (2.1) 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 φ increases (2.6) binds and at this point the incentive to undertake developmental investment is complicated by the threat of political transition.

I now concentrate on the comparison of the values, $V^e(P; \varphi)$ and $V^e(D; \varphi)$. These are the values when the elite are predatory and when they are developmental. First, it is immediate that,

$$V^e(D; \varphi) = \varphi A(g)k - g + \frac{\delta [\varphi Bk + (A(g) - B)k/(L+1)]}{1 - \delta} \quad (2.9)$$

Under developmental behavior, the elite invests in infrastructure initially and extends democracy in order to avoid revolution. When the elite is predatory it chooses $G = 0$ and always maintains power getting the payoff of $\varphi A(0)k$ in each period, hence,

$$V^e(P; \varphi) = \frac{\varphi A(0)k}{1 - \delta} \quad (2.10)$$

I shall say that *the State is Predatory* if,

$$V^e(P; \varphi) > V^e(D; \varphi) \quad (2.11)$$

and otherwise that the *State is Developmental*. To think intuitively about this inequality note the effects of φ . As φ increases, it is clear from (2.6) that collective action becomes more attractive. The more of the returns from production the elite expropriates, the more inequality there is in society, and the more attractive is collective action. Under predatory behavior, higher φ induces lower G to stop this. Such behavior is costly to the elite. Note however that as φ rises under predatory behavior so does indirect utility, so that $V_\varphi^e(P; \varphi) = A(0)k/(1 - \delta) > 0$ (where the subscript on the value function denotes a partial derivative.) The key point is that the higher is φ , the more the elite has to lose from political transition. At the same time, the higher is φ , the greater the loss from the under provision of public goods (since the higher is φ the more the returns to public good provision accrue to the elite.) Thus what matters for whether or not the state is predatory

is which rises faster, the cost to the elite of providing less public goods, or the cost of having to give transfers to the citizens under democracy.

I need one more assumption. Define $\varphi' = (L + 1)^{-1}$, then Assumption 4 says that φ' is less than the level of encompassing at which (2.6) binds. Intuitively, this assumption guarantees that the elite actually loses under democracy. If the degree of encompassing is very low then the gain from transfers might be greater than the losses from being taxed. To avoid this implication one simply needs that L be sufficiently high.

Assumption 4: $\varphi' < \varphi^*$.

An important, and intuitive, implication of Assumption 4 is $\partial V^e(D; \varphi) / \partial B > 0$.

The behavior of inequality (2.11) depends on the various parameters. I focus on one case and then discuss the conditions which makes this case likely. Note first that $V_\varphi^e(P; \varphi) = A(0)k/(1 - \delta)$ and $V_\varphi^e(D; \varphi) = A(g)k + \delta Bk/(1 - \delta)$, thus, $V_\varphi^e(P; \varphi) > V_\varphi^e(D; \varphi)$ if,

$$\delta > \frac{A(g) - A(0)}{A(g) - B} < 1 \quad (2.12)$$

When δ is high, the elite place a lot of weight on the future and thus on the fact that the marginal benefit of encompassing is reduced by being subject to taxation under democracy. The fact that $A(0) > B$ is clearly crucial. Define δ^* such that (2.12) holds as an equality. Then $V_\varphi^e(P; \varphi) > V_\varphi^e(D; \varphi)$ for all $\delta \in (\delta^*, 1]$.

Assumption 5: $V^e(P; \varphi^*) < V^e(D; \varphi^*)$, $V^e(P; 1) > V^e(D; 1) > \frac{\varphi^* A(g)k}{1 - \delta} - g$.

At φ^* as (2.6) binds there is a discontinuous jump down in payoffs for the elite. Which strategy they adopt depends on which falls most. This depends on the loss to inefficiently undersupplying public goods, against the loss in income caused by taxation under democracy. Either can dominate. Assumption 5 states that $V^e(P; \varphi^*) < V^e(D; \varphi^*)$, or that, at $\varphi = \varphi^*$ the loss from democracy is less. Intuitively this might be the case because, while the per-capita transfer T is independent of φ , the loss from being taxed is relatively small if φ is small (close to $(L + 1)^{-1}$.) Under Assumption 5 I can define, by the continuity of the value functions, a $\hat{\varphi}(\delta, k, B)$ such that, $V^e(P; \hat{\varphi}(\delta, k, B)) = V^e(D; \hat{\varphi}(\delta, k, B))$.

Now consider the following strategy profiles $\{\sigma^e(\varphi^*), \sigma^c(\varphi^*)\}$ and $\{\sigma^e(\hat{\varphi}), \sigma^c(\hat{\varphi})\}$. In the first of these, the elite plays, $\sigma^e(\mu(0), E) = (G = g, \phi = 0, \Theta = 0)$, $\sigma^e(\mu(g), E) = (G = 0, \phi = 1, \Theta = 0)$ and the citizens play $\sigma^c(\mu(g), E|0, 1, 0) = (\rho = 0, t^c = t)$, $\sigma^c(\mu(g), T|0, 0, 0) = (\rho = 0, t^c = t)$ and off the equilibrium path, $\sigma^c(\mu(g), E|0, 0, 0) = (\rho = 1)$. In the second, the elite plays, $\sigma^e(\mu(0), E) = (G = 0, \phi = 0, \Theta = 0)$, and the citizens play $\sigma^c(\mu(0), E|0, 0, 0) = (\rho = 0)$.

Proposition 2.2. *Assume Assumptions 1-5 hold and consider $\delta \in (\delta^*, 1]$. Then for all $\varphi \in (\varphi^*, \hat{\varphi}(\delta, k, B)]$, the strategy profile $\{\sigma^e(\varphi^*), \sigma^c(\varphi^*)\}$ is a unique Perfect Markov equilibrium. In this equilibrium the State is Developmental and political transition occurs. However, for all $\varphi \in (\hat{\varphi}(\delta, k, B), 1]$, the strategy profile $\{\sigma^e(\hat{\varphi}), \sigma^c(\hat{\varphi})\}$ is a unique Perfect Markov equilibrium. In this equilibrium the State is Predatory and averts political transition.*

Figure 1 draws the graph of the equilibrium G as a function of φ . For all $\varphi \in [0, \underline{\varphi}]$ the elite is insufficiently encompassing to make investment worthwhile (intuitively, enough of the rents from investment do not accrue to them.) However, for all $\varphi \in (\underline{\varphi}, \varphi^*]$ the elite sets $G = g$. As φ rises above φ^* so that the threat of collective action becomes binding, the elite initially finds it more advantageous to keep providing public goods efficiently and meet collective action with democratization. However, since $A(0) > B$ and with sufficient weight attached to the future ($\delta \in (\delta^*, 1]$) the relative attractiveness of predation increases with φ . Hence, for $\varphi \in (\hat{\varphi}, 1]$, the state is predatory and stops providing infrastructure in order to avoid collective action. Figure 2 draws the graphs of the value functions under Assumptions 1-5 (which are all linear in φ .)

What conditions make Assumption 5 likely to hold? I focus first on the role of B in this assumption. This represents how difficult it is to tax the capital endowment. The smaller is B (conditional on Assumption 2 being satisfied), the more likely it is that the elite will favor predation. This follows since under Assumption 4 $V^e(D; \varphi)$ is increasing in B . In terms of Figure 2, lowering B shifts the graph of $V^e(D; \varphi)$ vertically downwards and therefore makes it more likely that $V^e(P; \varphi) > V^e(D; \varphi)$. Although I have discussed B in terms of an informal sector technology, there are other possible interpretations. For example, if the economy is open with a possibility of capital flight, then B might represent the

net return to moving capital abroad¹⁵. Clearly, some types of capital are much more mobile internationally than others, with land being the most immobile. Thus if the elite is encompassing in land or if the economy is closed, B will be low. I sum up with the following result which follows from $\partial\hat{\varphi}(\delta, k, B)/\partial B > 0$.

Proposition 2.3. *Elites who are encompassing in land, or who rule an economy closed to capital flows are more likely to be predatory.*

Here I consider the extent of openness as exogenous. Trying to explain why so many predatory regimes are closed is an important extension of the model. I now consider an interesting comparative static result which follows immediately from the above.

Proposition 2.4. *An increase in the scale of the economy makes it more likely that the State is Developmental.*

Proposition 2.4 follows since if one increases k then this increases the right side of (2.11) relative to the left. Formally, it is easy to see that, $\hat{\varphi}(\delta, k, B)$ is decreasing in k . This result establishes a connection between the results of the model and the robust empirical finding that the probability that a country will be democratic is positively related to its income level. Here, this is because the higher is the income level, the higher the marginal benefit of public investment relative to the cost, and the larger the loss to the elite from being predatory. Thus a higher level of income leads elites to choose developmental behavior and tolerate political transition.

Another interesting comparative static concerns μ . Other things equal, a higher μ increases the range over which the elite faces the threat of political transition and, under the assumptions above, this increases the range over which predation is attractive. Intuitively, the less costly is collective action (or, alternatively, the easier it is for citizens to mobilize and initiate collective action), the tighter is the revolution constraint and the larger the sub-set of the parameter space for which the investment decision will be constrained by the ramifications of political transition. This result may help us to understand the extend of predatory behavior in African countries. A recent empirical finding of Easterly and Levine

¹⁵The model therefore has the rather counter-intuitive, but perhaps plausible result that allowing elites to have Swiss bank accounts makes it more likely that they will be developmental. This is because they stand to lose less from political transition.

(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 results in a higher μ , and may 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, Hechter (1987) and Horowitz (1985,1992).

What about the effect of discounting? In this model a state becomes predatory when it reduces investment in infrastructure in order to forestall political transition. To see how discounting affects this it is necessary to see how the present and future payoffs are ordered. Implicitly, the conventional view (that higher δ reduces the likelihood of predation) follows from assuming,

$$\varphi A(0)k > \varphi A(g)k - g \quad (2.13)$$

so that investment lowers utility today. In this case, if,

$$\varphi A(0)k > \varphi Bk + (A(g) - B)k/(L + 1) \quad (2.14)$$

then predation is preferred, irrespective of δ . On the other hand, if (2.13) holds but (2.14) is reversed, then the current sacrifice of investing is partially compensated by the future higher benefit under democracy. In this case a higher δ , by putting more weight on this future benefit, does tend to increase the sub-set of the parameter space for which investment is efficiently undertaken. There is another case which is, I think, more interesting. Imagine that (2.13) is reversed but that (2.14) holds (it seems unlikely in reality that elites per-period payoff would actually be higher under democracy than predation.) 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.) In this case the nature of predatory behavior is to sacrifice current productive actions to forestall political transition and increase utility in the future. In such a situation the more the future is valued, the more likely it is that this future utility increment will be valued, hence the greater the possibility that predatory behavior arises. I sum up this case with the following result.

Proposition 2.5. *If Assumptions 1-5 and (2.14) hold, (2.13) is reversed and $\varphi \in (\varphi^*, 1]$, then there exists a $\hat{\delta} \in (0, 1)$ such that $V^e(P; \varphi, \hat{\delta}) = V^e(D; \varphi, \hat{\delta})$, and*

for $\delta \in [0, \hat{\delta})$, $V^e(D; \varphi, \delta) > V^e(P; \varphi, \delta)$, while for all $\delta \in (\hat{\delta}, 1]$, $V^e(P; \varphi, \delta) > V^e(D; \varphi, \delta)$. In this case for $\delta \in [0, \hat{\delta})$ the unique Perfect Markov equilibrium of the game has the property that the State is Developmental, while for $\delta \in (\hat{\delta}, 1]$ the equilibrium has the feature that the State is Predatory.

2.3. Initial Redistribution

I now consider other implications of the model, in particular the effects of initial inequality on development. Note that whether or not the condition (2.1) binds depends crucially on initial inequality. If society was more equal initially, in the sense that the degree of encompassing of the elite is not too high, then the constraint is more likely to be slack and political transition less of a possibility. Indeed, as Proposition 2.1 shows, for $\varphi < \varphi^*$ society is equal enough that the elite is not threatened with political transition and can choose policy efficiently.

This opens up the possibility that, rather than optimal policy by the elite involving undersupply of public goods to avoid political transition, it might involve enough redistribution to start with to achieve the same end. The elite would have to transfer enough claims on production that it could stop the constraint (2.1) binding and thus avoid having to either make transfers or to be predatory. To study the conditions under which such strategy might be an equilibrium I shall assume that the elite can commit to such a redistribution. Thus given their initial level of encompassing, φ , assume that, $\mu(g) > 1 - \varphi$. I shall consider the elite giving away some $\theta > 0$ such that, $\mu(g) = 1 - \varphi + \theta$. I shall consider a case where the elite is encompassing enough that it knows that it has to face collective action if it invests, and where it is optimal for the elite to respond to this with democratization (as will become apparent, this is the only relevant case.) Under what conditions will the redistributive policy be a better policy for the elite? To understand this define, $V^e(\theta)$ as,

$$V^e(\theta) = \frac{A(g)[\varphi - \theta]k}{1 - \delta} - g$$

Note that $V^e(\theta)$ is the indirect utility of the elite when unconstrained by (2.1) at φ^* , thus $V^e(\theta)$ is a constant independent of φ since $\varphi - \theta = \varphi^*$ (in terms of Figure 2 it is a horizontal line drawn from $V^e(U; \varphi^*)$.) There are several different cases that may arise. In Figure 3 I have drawn the case where there exists a $\tilde{\varphi}$ at which the elite is just indifferent between redistribution and being forced to

introduce democracy in the second period. In this case, as φ increases one moves from the unconstrained region (for $\varphi \in [0, \varphi^*]$), to a region where developmental behavior occurs, first with initial redistribution (for $\varphi \in (\varphi^*, \tilde{\varphi}]$), and second with democratization (for $\varphi \in (\tilde{\varphi}, \hat{\varphi}]$). Finally predatory behavior occurs in the region $\varphi \in (\hat{\varphi}, 1]$. Whatever case arises it must be true that for φ close to φ^* redistribution must be preferred by the continuity of $V^e(\theta)$. Thus I can state the following result.

Proposition 2.6. *Assume Assumptions 1-5. Then there exists some interval $\varphi \in (\varphi^*, \tilde{\varphi}]$ (where $\tilde{\varphi} \in (0, 1]$) such that it is optimal for the elite to initially redistribute rights to income flows in order that (2.1) is slack in the second period. In such a situation the Perfect Markov equilibrium of the game has the feature that the State is Developmental and there is no future political transition.*

2.4. Relative Factor Endowments

I now consider an extension of the model to introduce a richer concept of factor endowment. Imagine that the endowment k is made up of an endowment of ‘capital’, denoted k^c , and natural resources k^n , where $k = k^c + k^n$, where both of these can be used to produce the single consumption good. Let, $k^c = \sigma k$ and $k^n = (1 - \sigma)k$ where $\sigma \in [0, 1]$. The important distinction between k^c and k^n is that public investment increases the value of k^c but not k^n , so that total output is, $A(G)\sigma k + (1 - \sigma)k$. Either of the two factors can be moved into the informal sectors where k^c can get a marginal return of B^c and k^n a marginal return of B^n . I allow the median voter under democracy to set separate tax rates on income from the two factors and in this cases, the tax rates, t^c and t^n solve the equations, $(1 - t^c)A(G) = B^c$ and $(1 - t^n) = B^n$. Therefore, $(L + 1)\tau = (A(g) - B^c)\sigma k + (1 - B^n)(1 - \sigma)k$. Under these assumptions, the state is predatory if,

$$\frac{\varphi[A(0)\sigma + (1 - \sigma)]}{1 - \delta} \geq \varphi[A(g)\sigma + (1 - \sigma)] - \frac{g}{k} + \frac{\delta[\varphi(B^c\sigma + B^n(1 - \sigma)) + \tau]}{1 - \delta}$$

Consider the simple case where $A(g) - B^c = 1 - B^n$. Then τ is independent of σ (as well as φ , as before) and we have,

$$\frac{\varphi[A(0)\sigma + (1 - \sigma)]k}{1 - \delta} \geq \varphi[A(g)\sigma + (1 - \sigma)]k - g$$

$$+ \frac{\delta \left[\varphi (B^c \sigma + B^n (1 - \sigma)) + \frac{A(g) - B^c}{L+1} \right] k}{1 - \delta}$$

The previous version of the model is then the case where $\sigma = 1$. Investment in the public good is socially efficient if $\sigma k [A(g) - A(0)] > g(1 - \delta)$, and privately rational for the elite in the unconstrained case if, $\varphi \sigma k [A(g) - A(0)] > g(1 - \delta)$. Restrict attention to ranges of the parameters for which these inequalities are satisfied. To do this, defines $\varphi(\sigma)$ to be the level of encompassing at which public good provision becomes rational as a function of the relative factor endowments, where $\varphi'(\sigma) < 0$ (the higher is σ , the lower the level of encompassing at which it becomes rational for the elite to provide public goods) and restrict attention to cases where $\varphi(\sigma) < \varphi^*$, noting that φ^* is unchanged. Now consider $V_\varphi^e(P; \varphi) > V_\varphi^e(D; \varphi)$. This holds for $\delta > \delta^*(\sigma) = \sigma(A(g) - A(0)) / (A(g)\sigma - B^c\sigma - B^n(1 - \sigma))$. Assumption 5 is easily amended to take into account these changes and I can define $\hat{\varphi}(\delta, k, B, \sigma)$. It is clear that the left side of $V^e(P; \varphi) > V^e(D; \varphi)$ is independent of σ , while the right side is increasing in σ . This implies that $\partial \hat{\varphi}(\delta, k, B, \sigma) / \partial \sigma > 0$. The larger is σ (subject to Assumptions 1-5 being satisfied) the more encompassing the elite must be for it to be worthwhile to adopt the predatory strategy. I sum up with the following result.

Proposition 2.7. *If the amended versions of Assumptions 1-5 hold and for all $\delta \in (\delta^*(\sigma), 1]$, then for $\varphi \in (\hat{\varphi}(\delta, k, B, \sigma), 1]$ the unique Perfect Markov equilibrium of the game has the feature that the State is Predatory, moreover, the larger the proportion of natural resources in the total factor endowment of the economy, the smaller is σ , and the larger the range of φ for which the predatory strategy is an equilibrium.*

3. Discussion

How do the results of the last section help us to understand the distinction between predatory and developmental behavior? First, Propositions 2.2 and 2.3 show us why such encompassing regimes as that of Marcos, Trujillo, and Somoza were so predatory (see the evidence discussed in the next section.) Not only were these regimes highly encompassing, but their factor incomes stemmed primarily from landholdings so that political transition was particularly costly for them. Proposition 2.5 helps us to understand why regimes with dynastic aspirations, like

the Duvaliers or Somozas, or the regime in North Korea, are predatory. Proposition 2.6 formalizes the intuition of Rodrik (1994, 1996) and Campos and Root (1996) that the high initial equality of land and income, might have influenced the costs and benefits of different policies for East Asian countries in a way which encouraged developmental behavior. Moreover, the model implies that in cases where we observe such initial redistribution (land reform) we should see development without political transition, exactly as in the cases of South Korea and Taiwan. The model implies that part of the success story of these countries was due to the fact that their political elites were *not very encompassing*. Proposition 2.7 is also relevant here. South Korea and Taiwan were not well endowed with natural resources compared to their endowments of human and physical capital, and this again encouraged developmental behavior. The model (Proposition 2.3) also helps formalize the common argument that East Asian countries prospered because landed interests did not have political power (in contrast to Latin America.) Similarly, Proposition 2.7 also helps us to understand why it was rational for President Mobutu to be so predatory.

There are several 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. Acemoglu and Robinson (1996) examine political transition and policy in models where capital accumulation and inequality influences the desirability and costs of collective action. In neither of these papers are the dynamic issues developed here the focus of concern. Ades and Verdier (1993) and Ades (1995) have developed a model where political power is monopolized by a rich elite, and Bourguignon and Verdier (1996) extend this model to allow the anticipation of endogenous political participation to influence policy. 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. Finally, Rajan and Zingales (1996) have examined how technological innovation may be blocked because the wealth effects of compensation affect bargaining power. Their model has an inseparability between efficiency and distribution which is related to the one of the present model.

As noted, the model of this paper deals with a key theoretical issue, which is why an existing elite is unable both to support good institutions and to promote development, and then subsequently use policy tools to extract all of the rents from individuals. Phrased another way, why doesn't the Second Welfare Theorem

hold in these economies? Despite the theoretical attraction of lump-sum taxes and transfers, there are few good models of why they are so little used to separate distribution from efficiency¹⁶. By changing the structure of society and the ability of individuals and groups to engage in collective action, the distribution of social power is altered in a way which cannot easily be undone by existing elites. Thus the interrelationship between development and political power induces a fundamental inseparability between efficiency and distribution.

4. Understanding Predatory States

4.1. The Existing Theoretical Literature

North (1981), Levi (1988), Findlay (1990), Grossman and Noh (1994), McGuire and Olson (1996), and Lal and Myint (1996) have developed the standard model of the predatory state. In this, elites are predatory rather than developmental, if they either have an “encompassing interest,” or have long time horizons¹⁷. This first idea, due to Olson (1982), and developed in 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 second builds on the idea that good policy has a time dimension since it involves investment. In this case it is important that an elite have a long time horizon if it is to be developmental (Levi 1988)¹⁸. These models suggest that what might distinguish developmental from predatory regimes is either the extent to which they are encompassing, or the extent to which they care about the future. In principle, both sets of ideas can be tested by appealing to evidence (though as we shall see the time horizon issue is elusive).

¹⁶One argument, due to Coate and Morris (1995), is that transfers may reveal sensitive information about the distributional preferences of regimes. Yet this argument is surely irrelevant for the types of elites relevant for development.

¹⁷There are other theories in the literature, such as that of North (1981) who argues that states may favor inefficient property rights because they reduce the costs of raising taxes, but these have not been developed to explain the cross-country evidence.

¹⁸An 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.

4.2. 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, or “disasters”. I then move to “miracles”. Neither of the central ideas in the literature 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*¹⁹.

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, and Dunkerley, 1988, 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% of all arable land at the beginning of the Sandinista revolution (see Crawley 1979 and Close 1988).

¹⁹There 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.

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." It goes without saying that Nicaragua was not a development miracle during this period. Indeed, the growth rate of real 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 (Seagrove, 1988). Despite this encompassing interest, Philippines is usually held to be the development disaster *par excellence*, particularly when viewed in the East Asian mirror (see Lucas, 1993.) 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 autocrats 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 find²⁰. For example, the Duvalier dy-

²⁰The 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)²¹. 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 of these leaders appear to have had dynastic aspirations. Not one of the recent political economy accounts of East Asian development (see for example Amsden, 1989, Cumings, 1997, on Korea, Lim et al., 1993, and Huff, 1995, 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

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 (Clark 1996 and Rosenthal, 1997, for historical evidence.)

²¹Because 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.

specifically focused on the role of the state in economic transformation.

The existing evidence about the policies and performance of autocratic 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 useful²². I now turn to the evidence to motivate the theoretical framework I presented above as a way of thinking about these issues.

4.3. Development and Political Equilibrium

Many regimes in poor countries fail to adopt growth promoting policies and even adopt seemingly perverse policies. Why is this? My general argument is that this is because of a desire to control political power. 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.)

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. The quote from Mobutu at the start of the paper is stark evidence of this²³. Mobutu saw infrastructure as increasing the ability of citizens to organize in collective action against him. The evidence is clear that Mobutu saw an underdeveloped, fragmented society and economy as maximizing his control (see, Callaghy 1984, Mokoli, 1992, and Young, 1983). Mobutu's way of thinking about infrastructure is very common in predatory regimes. In Haiti under the Duvaliers there were

²²If 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.

²³Kabwit (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.

500 miles of roads in 1959 but only 370 by 1969 (Chiot, 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 Ornes, 1958, Wiarda, 1968.)

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, (see Robinson 1997b.) 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."

Apart from these attitudes to infrastructure there are other predatory policies which are consistently associated with underdevelopment: first, the active opposition to a stable and well functioning bureaucracy, the opposition to industrialization because of the fear of a politically active middle class, and finally, the opposition to promoting human capital accumulation. In all classic predatory regimes, such as the ones I have discussed, one sees these same disastrous policies (Robinson, 1997b).

Good policies ought to entail building infrastructure, nurturing a meritocratic bureaucracy, promoting industrialization, and investing in human capital. The fact that predatory regimes do not undertake such policies is because of the impact they have on political power. However, as noted, in some cases this incentive to be predatory is dominated by other factors so that development can occur. This is because there are costs to even a self-serving elite from underdevelopment.

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 argued that the central ideas in the literature are exactly the opposite of what appears to be the case, and I have further proposed what I think is the single most 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. In a model such as this both encompassing and long horizons can be bad for development.

How does the preceding analysis relate to democratic governments? Aghion and Bolton (1990), Perotti (1993), Milesi-Ferretti and Spolaore (1994) and Besley and Coate (1995) 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. I conjecture therefore that the results of this paper may be interesting outside of the context of non-democratic polities.

References

- Acemoglu, D. and J.A. Robinson (1996) "Why Did the West Extend the Franchise? Growth, Inequality and Democracy in Historical Perspective," CEPR Discussion Paper No. 1797.
- Ades, A. (1995) "Economic Development with Endogenous Political Participation," *Economics and Politics*, 7, 93-117.
- Ades, A. and T. Verdier (1993) "The Rise and Fall of Elites: A Pure Theory of Economic Development and Social Polarization in Rent-Seeking Societies," Unpublished Working Paper, DELTA, Paris.
- Aghion, P. and P. Bolton (1990) "Government Debt and the Risk of Default: A Political-Economic Model of the Strategic Role of Debt," in R. Dornbusch and M. Draghi eds. *Public Debt Management: Theory and History*, Cambridge University Press, Cambridge UK.

- Amsden, A.H. (1989) *Asia's Next Giant: South Korea and Late Industrialization*, Oxford University Press, New York.
- Anderson, C.W. (1964) "Nicaragua: The Somoza Dynasty," in M. Needler ed. *Political Systems of Latin America*, Princeton University Press, Princeton NJ.
- Barro, R.J. (1996) "Democracy and Growth," *Journal of Economic Growth*, 1, 1-28.
- Besley, T. and S.T. Coate (1995) "Efficient Policy Choice in a Representative Democracy: A Dynamic Analysis," Department of Economics, University of Pennsylvania.
- Bourguignon, F. and T. Verdier (1996) "Oligarchy, Democracy, Inequality and Growth," Unpublished Working Paper, DELTA.
- Bulmer-Thomas, V. (1994) *The Economic History of Latin America since Independence*, Cambridge University Press, New York.
- Callaghy, T. (1984) *The State-Society Struggle: Zaire in Comparative Perspective*, Columbia University Press, New York.
- Campos, J.E. and H.L. Root (1996) *The Key to the East Asian Miracle: Making Shared Growth Credible*, Brookings Institution, Washington DC.
- Chiot, D. (1994) *Modern Tyrants*, Princeton University Press, Princeton NJ.
- Clark, G. (1995) "The Political Foundations of Modern Economic Growth: England 1540-1800," *Journal of Interdisciplinary History*, 26, 563-588.
- Close, D. (1988) *Nicaragua: Politics, Economics and Society*, Pinter Publishers, New York.
- Coate, S.T. and S.E. Morris (1995) "On the Design of Transfers to Special Interests," *Journal of Political Economy*, 103, 1210-1235.
- Crawley, E. (1979) *Dictators Never Die: A Portrait of Nicaragua and the Somoza Dynasty*, St. Martin's Press, New York.
- Cumings, B. (1997) *Korea's Place in the Sun: A Modern History*, W.W. Norton & Co. New York.
- Dunkerley, J. (1988) *Power in the Isthmus: A Political History of Modern Central America*, Verso, New York.
- Easterly, W. and R. Levine (1997) "Africa's Growth Tragedy: Policies and Ethnic Divisions," *Quarterly Journal of Economics*, 112, 1203-1250.
- Evans, P.B. (1995) *Embedded Autonomy*, Princeton University Press, Princeton NJ.

- Findlay, R. (1990) "The New Political Economy: It's Explanatory Power for LDC's," *Politics and Economics*, 2, 193-221.
- Gerschenkron, A. (1970) *Europe in the Russian Mirror: Four Lectures in Economic History*, Cambridge University Press, Cambridge UK.
- Greif, A. (1993) "Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Traders' Coalition," *American Economic Review*, 83, 535-548.
- Grossman, H.I. (1991) "A General Equilibrium Theory of Insurrections," *American Economic Review*, 81, 912-921.
- Grossman, H.I. and S.J. Noh (1994) "Proprietary Public Finance and Economic Welfare," *Journal of Public Economics*, 53, 187-204.
- Haggard, S. (1990) *Pathways from the Periphery*, Cornell University Press, Ithaca NY.
- Hechter, M. (1987) *Principles of Group Solidarity*, University of California Press, Berkeley CA.
- Helliwell, J.F. (1995) "Empirical Linkages Between Democracy and Economic Growth," *British Journal of Political Science*, 24, 225-248.
- Horowitz, D.L. (1985) *Ethnic Groups in Conflict*, University of California Press, Berkeley CA.
- Horowitz, D.L. (1992) "Democracy in Divided Societies," in L. Diamond and M.F. Plattner eds. *Nationalism, Ethnic Conflict and Democracy*, The Johns Hopkins University Press, Baltimore MD.
- Huff, W.G. (1995) "The Developmental State, Government, and Singapore's Economic Development since 1960," *World Development*, 23, 1421-1438.
- Huntington, S.P. (1968) *Political Order in Changing Societies*, Yale University Press, New Haven CT.
- Kabwit, G. (1979) "Zaire: The Roots of the Continuing Crisis," *Journal of Modern African Studies*, 17, 381-407.
- Lal, D. and H. Myint (1996) *The Political Economy of Poverty, Equity and Growth*, Oxford University Press, Oxford UK.
- Levi, M. (1988) *Of Rule and Revenue*, University of California at Berkeley Press, Berkeley, CA.
- Lim, L., P.E. Fong and R. Findlay (1993) "Singapore" in R. Findlay and S. Wellisz eds. *The Political Economy of Poverty, Equity and Growth: Five Small Open Economies*, Oxford University Press, New York.
- Lucas, R.E. Jr. (1993) "Making a Miracle," *Econometrica*, 61, 251-272.

- Lundahl, M. (1984) "Papa Doc: Innovator in the Predatory State," *Scandia*, 50, 39-78.
- Lundahl, M. (1992) "Introduction," in his *Politics or Markets? Essays on Haitian Underdevelopment*, Routledge, New York.
- Lundahl, M. and C. Vedovato (1989) "The State and Economic Development in Haiti and the Dominican Republic," *Scandinavian Economic History Review*, 37, 39-59.
- Maddison, A. (1995) *Monitoring the World Economy*, OECD, Paris.
- Manapat, R. (1991) *Some are Smarter than Others - The History of Marcos' Crony Capitalism*, Aletheia Publications, New York.
- McGuire, M. and M.C. Olson (1996) "The Economics of Autocracy and Majority Rule," *Journal of Economic Literature*, 34, 72-96.
- Milesi-Ferretti, G.M. and E. Spolaore (1994) "How Cynical can an Incumbent Be? Strategic Policy in a Model of Government Spending," *Journal of Public Economics*, 55, 121-140.
- Mokoli, M.M. (1992) *State Against Development: The Experience of Post - 1965 Zaire*, Greenwood Press, Westport CT.
- Mokyr, J. (1990) *The Lever of Riches*, Oxford University Press, New York.
- Moore, B. Jr. (1966) *The Social Origins of Dictatorship and Democracy*, Beacon Press, Boston MA.
- North, D.C. (1981) *Structure and Change in Economic History*, W.W. Norton & Co., New York.
- Olson, M.C. (1982) *The Rise and Decline of Nations*, Yale University Press, New Haven, CT.
- Ornes, G.E. (1958) *Trujillo: Little Caesar of the Caribbean*, Thomas Nelson & Sons, New York NY.
- Perotti, R. (1993) "Political Equilibrium, Income Distribution and Growth," *Review of Economic Studies*, 60, 755-776.
- Przeworski, A. and F. Limongi (1993) "Political Regimes and Economic Growth," *Journal of Economic Perspectives*, 7, 51-70.
- Rajan, R. and L. Zingales (1996) "The Tyranny of the Inefficient: An Inquiry into the Adverse Consequences of Power Struggles," Graduate School of Business, University of Chicago.
- Rempel, W.C. (1993) *Delusions of a Dictator*, Little Brown and Co., Boston.

- Robinson, J.A. (1997a)** "Theories of 'Bad' Policy," forthcoming in *Policy Reform*.
- Robinson, J.A. (1997b)** *A Political Theory of Underdevelopment*, unpublished book manuscript.
- Rodrik, D. (1994)** "King Kong meets Godzilla: The World Bank and the East Asian Miracle," in A. Fishlow et al. eds. *Miracle or Design? Lessons from the East Asian Experience*, Overseas Development Council, Washington DC.
- Rodrik, D. (1996)** "Understanding Economic Policy Reform," *Journal of Economic Literature*, 34, 9-41.
- Roemer, J.E. (1985)** "Rationalizing Revolutionary Ideology: A Tale of Lenin and the Tsar," *Econometrica*, 53, 85-108.
- Rosenthal, J-L. (1997)** "The Political Economy of Absolutism Reconsidered," Department of Economics, UCLA.
- Rueschemeyer, D., E.H. Stephens and J.D. Stephens (1992)** *Capitalist Development and Democracy*, University of Chicago Press, Chicago IL.
- Safford, F. (1976)** *The Idea of the Practical: Colombia's Struggle to Form a Technical Elite*, University of Texas Press, Austin.
- Seagrave, S. (1988)** *The Marcos Dynasty*, Harper and Row, New York.
- Therborn, G. (1977)** "The Rule of Capital and the Rise of Democracy," *New Left Review*, 103.
- Trouillot, M-R. (1990)** *Haiti, State Against Nation: The Origins of Duvalierism*, Monthly Review Press, New York.
- Vedovato, C. (1986)** *Politics, Foreign Trade and Economic Development: A Study of the Dominican Republic*, MacMillan, London.
- Vogel, E.F. (1991)** *Four Little Dragons: The Spread of Industrialization in East Asia*, Harvard University Press, Cambridge MA.
- Wade, R. (1990)** *Governing the Market: Economic Theory and the Role of the Government in East Asian Industrialization*, Princeton University Press, Princeton NJ.
- Walter, K. (1993)** *The Regime of Anastasio Somoza: 1936-1956*, University of North Carolina Press, Chapel Hill.
- Wiarda, H. (1968)** *Dictatorship and Development: The Methods of Control in Trujillo's Dominican Republic*, University of Florida Press, Gainesville.
- World Bank (1997)** *World Development Report*, Washington DC.
- Young, C. (1983)** "Zaire: The Politics of Penury," *SAIS Review*, 3, 115-130

Figure 1

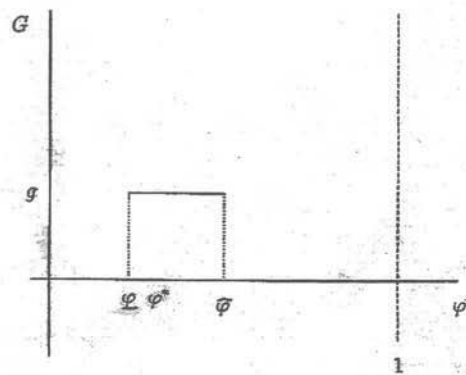


Figure 2

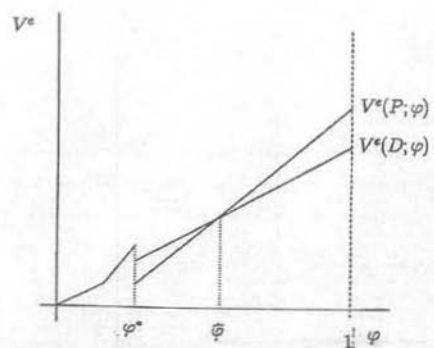
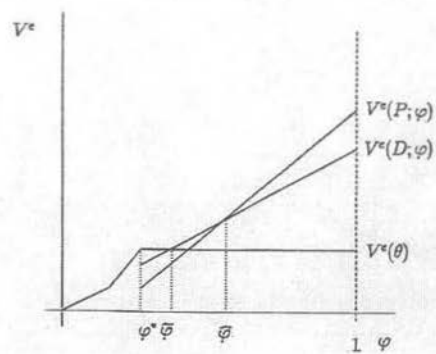


Figure 3



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