Why Is Rent-Seeking So Costly to Growth?

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Economists from Adam Smith (1776) to Douglass C. North (1981) agree that poor protection of property rights is bad for growth. But why is this problem so severe? Why do Peru (Hernando De Soto, 1989) and Equatorial Guinea (Robert Klitgaard, 1990) fail to grow at all when public and private rent-seeking make property insecure? In this paper, we explore two reasons why rent-seeking, meaning any redistributive activity that takes up resources, is so costly to growth.

First, rent-seeking activities exhibit very natural increasing returns. That is, an increase in rent-seeking activity may make rent-seeking more (rather than less) attractive relative to productive activity. This condition can lead to multiple equilibria in the economy, with "bad" equilibria exhibiting very high levels of rent-seeking and low output.[1]

Second, rent-seeking, particularly public rent-seeking by government officials, is likely to hurt innovative activities more than everyday production. Since innovation drives economic growth, public rent-seeking hampers growth more severely than production.

I. Increasing Returns in Rent-Seeking Activities

The rent-seeking technology *itself* often exhibits increasing returns. Three mechanisms are relevant. First, there may be a fixed cost to setting up a rent-seeking system, such as a legal code. Once it is set up, however, lawyers can cheaply sue each other's clients, which they could not do if the code did not exist. Second, rent-seeking may be self-generating in that offense creates a demand for defense. If one feudal lord builds an army, his neighbor does so as well; if a customer hires a lawyer, his supplier must do likewise; and so on. This too, is a form of increasing returns. Third, rent-seekers have a "strength in numbers." If only a few people steal or loot, they will get caught; but if many do, the probability of any one of them getting caught is much lower, and hence the returns to stealing or looting are higher. All these mechanisms, which rely on increasing returns to the aggregate rent-seeking technology, can generate multiple equilibria, some of which have a very high level of rent-seeking and a low level of income.

In this paper, we focus on perhaps an even more generic form of increasing returns to rent-seeking, which arises not from the structure of rent-seeking technology, but instead from interaction of rent-seeking and productive activities. Specifically, as more resources are allocated to rent-seeking, returns to production, as well as to rent-seeking, fall. Over some range, as more resources move into rent-seeking, returns to production may fall faster than returns to rent-seeking do, and so the attractiveness of production *relative* to rent-seeking will fall as well, even though both production and rent-seeking exhibit diminishing-returns neoclassical technologies. When this happens, rent-seeking exhibits general equilibrium increasing returns, in the sense that an increase in rent-seeking lowers the cost of further rent-seeking. Below, we present a simple model that illustrates this idea.

Consider a farm economy, in which each person can engage in one of three activities. He can produce a cash crop for the market, in which case his output is α. He can also

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[1]The idea developed here was briefly described in Murphy et al. (1991). A similar argument was recently made by Daron Acemoglu (1992).

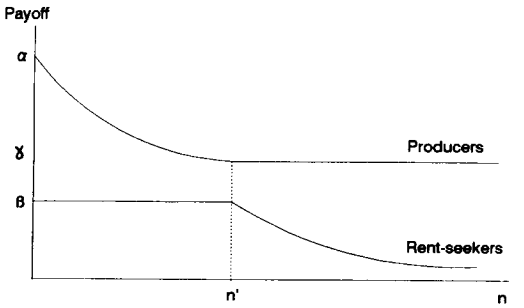

FIGURE 1. PAYOFFS TO PRODUCTION AND RENT-SEEKING, $\beta < \gamma$

produce a subsistence crop, in which case his output is $\gamma < \alpha$. The subsistence output in not subject to rent-seeking; it cannot be stolen or expropriated. In contrast, market output is subject to rent-seeking. Rent-seeking is the third activity that each person can pursue; if he does, the maximum amount of cash crop he can expropriate is β. Thus, an individual's rent-seeking technology is subject to diminishing returns, in the sense of an upper bound on how much he can grab with limited time and abilities. In this model, rent-seeking drives farmers out of cash-crop production, which is subject to expropriation, and into subsistence production, which is not, with the consequent substantial decline in productivity and living standards, as happened in many African countries (Robert H. Bates, 1987).

An equilibrium in this economy is an allocation of the population between cash-crop production, subsistence production, and rent-seeking. Denote the ratio of people engaged in rent-seeking and market production by n and denote income per capita by y. To study equilibria in this economy, we consider the payoffs to production and rent-seeking as a function of n. These payoffs are presented in Figure 1, which is the essential part of our analysis. At $n = 0$, the returns to market production are α since nothing is expropriated from the farmers, and the returns to rent-seeking are β since the first rent-seeker can take all he can get subject only to the diminishing returns on his technology. As n rises above 0, returns to market production fall to $\alpha - n\beta$, as farmers get a part of their output expropriated but are still better off than they would be with subsistence production. In this interval, the returns to rent-seeking are still β, since rent-seekers can still get all they are physically able to take.

At some critical level n', the after-transfer returns to market production fall all the way to the subsistence level γ. This is the highest ratio of rent-seekers to cash-crop producers consistent with rent-seekers getting their full potential output β. The critical level n' is given by $\alpha - n'\beta = \gamma$, or $n' = (\alpha - \gamma)/\beta$, where $\alpha - \gamma$ has the obvious interpretation of the maximum amount that can be taken from a market producer before he switches to subsistence. As the ratio of rent-seekers to cash-crop producers rises above n', rent-seekers begin to crowd each other, since cash-crop producers drop into subsistence production to keep their income level at γ. As a result, for $n > n'$, the return to both cash crop and subsistence producers is given by γ, and the return to each rent-seeker is given by $(\alpha - \gamma)/n < \beta$. In this regime of extreme rent-seeking, rent-seekers crowd each other and operate below their full potentials since they continue to divide a fixed pie between more and more of themselves.

Figure 1 illustrates the fundamental element of this model, namely, that even though all aggregate technologies here exhibit constant returns, the *relative returns* to rent-seeking (relative to entrepreneurship) may be increasing. Specifically, over the range where $0 < n < n'$, the aggregate returns to rent-seeking are constant because the aggregate amount redistributed is limited only by the number of rent-seekers, but aggregate returns to market production are diminishing as more rent-seekers take more wealth away from market producers. As a result, aggregate *relative* returns to rent-seeking over this range are increasing, which, as we shall see, gives rise to multiple equilibria in some cases. To analyze equilibria, we must consider three cases which correspond to the relative positions of the two curves in Figure 1. In case 1, $\beta < \gamma$; in case 2, $\beta > \alpha$; and in case 3, $\gamma < \beta < \alpha$.

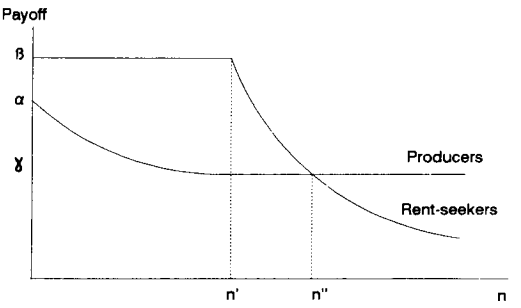

FIGURE 2. PAYOFFS TO PRODUCTION AND RENT-SEEKING, $\beta > \alpha$

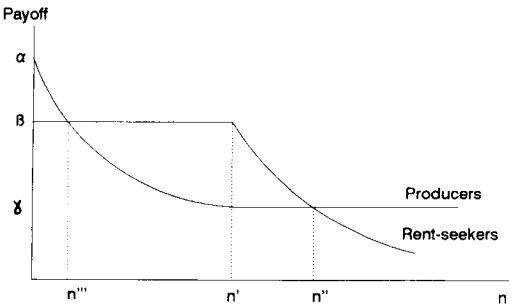

FIGURE 3. PAYOFFS TO PRODUCTION AND RENT-SEEKING, $\gamma < \beta < \alpha$

Case 1: $\beta < \gamma$.—In this case, which actually corresponds literally to Figure 1, property rights are extremely well protected, and the rent-seeking return is even lower than the return to subsistence production. The equilibrium in this economy is unique: every person produces the cash crop; there are no rent-seekers or subsistence producers. In this sense, well-defined property rights lead to the highest possible output per capita, namely α.

Case 2: $\beta > \alpha$.—This case corresponds to extremely poorly protected property rights, or equivalently, weak diminishing returns to individual rent-seeking. In this case, a first rent-seeker can grab more than a farmer can produce for the market. Figure 2 illustrates the relative position of the returns to rent-seeking and to production in this case and shows that there is only one equilibrium. At this equilibrium, the return to production, driven all the way down to γ, must equal the return to rent-seeking when rent-seekers are crowding themselves [i.e., $\gamma = (\alpha - \gamma)/n$]. That is, in equilibrium, $n'' = (\alpha - \gamma)/\gamma$. (It follows immediately that $n'' > n'$). In this equilibrium, everyone's income is equal to subsistence productivity γ rather than market productivity α.[2]

[2]In this example, the *number* of rent-seekers and cash crop producers is indeterminate; only their ratio is known. With diminishing returns to production, this indeterminacy disappears.

Case 3: $\gamma < \beta < \alpha$.—In this intermediate case, there are two equilibria, as shown in Figure 3. The first equilibrium corresponds to that in case 1, where everyone is a cash crop producer and income per capita is α. The second corresponds to that in case 2, where rent-seeking is savage, people are split between market production, subsistence production, and rent-seeking, and per capita income is driven down all the way to γ. In the third equilibrium, people are split between market production and rent-seeking (with no subsistence producers), and the return to each activity is β. In this equilibrium, $\alpha - \beta n = \beta$, or $n''' = (\alpha - \beta)/\beta$. (It follows immediately that $n''' < n'$). Entry by rent-seekers drives the returns of market producers down to a rent-seeker's return, yet crowding by rent-seekers has not yet set in. This, however, is not a stable equilibrium, since an incremental increase in n beyond n''' raises returns to rent-seeking above those to market production, and hence invites further increases in resources devoted to rent-seeking. The two stable equilibria, then, are the "good" one with $n = 0$, and the "bad" one with $n = n''$.

Having presented the equilibria in this model, we can briefly discuss what they mean, and how changes in parameter values affect the equilibrium outcome. First, consider the productivity of rent-seeking, β, which captures the quality of property-rights protection in this model. As the above analysis showed, β does not affect the value of output in either equilibrium. However, β obviously affects which case obtains. In par-

ticular, a very high value of β, corresponding to very poor protection of property rights, eliminates the good equilibrium, whereas a very low level of β, corresponding to good protection of property rights, eliminates the bad equilibrium. This result accords well with intuition.

Holding other parameters constant, raising α increases income in the good equilibrium but also raises the likelihood that this equilibrium exists. A higher α also means a higher ratio of rent-seekers to market producers in the bad equilibrium, since there are more rents to be dissipated per producer before income falls down to γ. Finally, an increase in γ can be interpreted either as the improvement in the subsistence technology or, better yet, as an alternative measure of protection of property rights, since $\alpha - \gamma$ is the maximum amount that could be taken from a producer. An increase in γ does not affect the good equilibrium but raises the income in the bad equilibrium, through two channels. First, raising γ cuts the pie available to rent-seekers and hence drives people out of that activity. Second, raising γ raises the pay in the alternative occupation, namely, subsistence production, which keeps down the amount of crowding in the rent-seeking activity. Reducing how much rent-seekers can take thus raises the living standards in the bad equilibrium.

Of course, the essential point of this model is that the bad equilibrium exists and is characterized by extremely low living standards. If the economy starts out in that equilibrium, it needs to be jump started out of it. To get to the best case, case 1, it is essential to provide enough property-rights protection that β falls below γ (i.e., that the returns to subsistence production exceed those to rent-seeking). A legal system, a rigid culture, or some other form of anti-rent-seeking ideology can play a role (North, 1981); but some protection of subsistence production, as well as raising its productivity, also plays an important role. Whatever strategy for property-rights protection is used, it must be quite radical, since the bad equilibrium is stable and will not be affected by minor improvements of property rights. This may explain why countries find it so costly to switch out of rent-seeking equilibria and often need a major government or civil-service reform to do so.

As a final implication, the model suggests that an economy that starts out in a good equilibrium can slide into a bad equilibrium as a result of a war, a coup, or social unrest that reduces both productivity and protection of property rights. This may describe what has happened during military instability in Africa or during the collapse of communism in Russia. The model shows how difficult it is to snap out of such equilibria.

II. Rent-Seeking and Innovation

In Section I, rent-seeking reduced output in the economy. However, economic growth often depends critically on investment and innovation. This raises the obvious question: is rent-seeking likely to attack the innovation sector or the production sector more severely? That is, is rent-seeking particularly bad for growth?

To address this question, it is useful to distinguish between private and public rent-seeking. Private rent-seeking takes the form of theft, piracy, litigation, and other forms of transfer between private parties. Public rent-seeking is either redistribution from the private sector to the state, such as taxation, or alternatively from the private sector to the government bureaucrats who affect the fortunes of the private sector. The latter kind of public rent-seeking takes the form of lobbying, corruption, and so on.

Private rent-seeking, such as that described in our model, attacks the productive, rather than the innovative, sector of the economy. Private rent-seekers go after existing stocks of wealth, such as land, output, capital, and so on. Bandits steal crops, lawyers sue deep-pocket corporations, and armies invade rich countries. In contrast, public rent-seeking attacks innovation, since innovators need government-supplied goods, such as permits, licenses, import quotas, and so on, much more so than established producers. To start a new firm, an innovator must get business, building, water, and fire permits, tax documents, import licenses if

he needs new machinery, and often dozens of other documents (De Soto, 1989). Innovators' demand for these government-produced goods is high and inelastic, and hence they become primary targets of corruption. In contrast, established producers usually do not need as many government goods, since they have bought them already.

Of course, the government can also try to blackmail the established producers into getting some new licenses and permits. If the government makes no commitments, established and potential producers are in the same boat. Even so, more likely than not, new producers are more vulnerable to public rent-seeking.

First, innovators have no established lobbies and are not part of the government "elite." Whereas the established producers are often part of the government, innovators are outsiders and hence are subject to particularly heavy bribes and expropriations. This problem becomes even worse when the interests of new and established producers are opposed, in which case the government may even stop innovators altogether.

Second, unlike the established producers, innovators are often credit-constrained and cannot as easily find the cash to pay bribes. Human capital is poor collateral. (This also explains why they are less vulnerable to private rent-seeking.) When innovators do not have their own cash to pay bribes and cannot raise the funds to do so for lack of collateral, they can be completely deterred by public rent-seeking from entering and innovating.

Third, innovative projects are typically long-term and involve slow accumulation of capital. This provides rent-seekers plenty of opportunities for future expropriation. In fact, in developing countries with weak protection of property rights, capital is often used in trade, rather than being committed to long-term investments, to avoid expropriation.

Fourth, innovative projects are typically risky, which makes them particularly vulnerable to rent-seeking. For if a project succeeds, the returns are expropriated, whereas if it fails, the innovator bears the cost. Such *ex post* rent-seeking raises the risk of innovation.

These problems can be mitigated if the rulers or the bureaucrats can take an equity stake in innovative activities, so that they can effectively accept a bribe without demanding cash, turn innovators into insiders, reduce their own incentives for subsequent expropriation, and bear some of the risk. In some countries, bureaucrats and even political leaders do exactly that, which presumably allows for some innovation. If the politicians had a long horizon, and could collect bribes efficiently, they would always back the innovator over the established producer if innovation increases the wealth in the economy. On the other hand, if innovators destroy more profits than they create (perhaps because they increase consumers' surplus), and if the bureaucrats cannot collect the bribes from consumers' surplus, they might side with established monopolies and stop innovation. Moreover, if corruption must be kept secret, politicians might prefer lower bribes from a clique of insiders to higher bribes from outsiders (Shleifer and Vishny, 1993). Such ruling oligarchies often prevent innovation in Asia (e.g., the government of Ferdinand Marcos in the Philippines), Latin America, and Africa. For these reasons, the possibility of equity holdings rarely cures the adverse effect of public rent-seeking on entrepreneurship.

These arguments suggest that public rent-seeking can put a severe tax on innovative activities and thereby move resources into established production or the public rent-seeking sector. The result would be a sharp reduction in economic growth.

III. Conclusion

This paper has suggested two reasons why countries with productive rent-seeking technologies, such as easy corruption, poor laws, and permissive legal systems, can suffer economically. First, we argued that rent-seeking activity is subject to very natural increasing returns, which means that very high levels of rent-seeking may be self-sustaining. Second, we argued that public rent-seeking in particular may afflict innovative activity

the most and hence sharply reduce the rate of economic growth. These arguments add further substance to recently renewed concern about the effect of poor property rights on economic development.

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