Rent seeking

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1. The social costs of rent seeking

The public-choice school was the originator of the view in the modern economics literature that incentives of self-interest apply in all human behavior, including personal behavior of political decision makers and government bureaucrats, as well as individuals, groups, and corporations seeking favors from government. Rents are akin to favors or gifts; if it is known that political decision makers and government bureaucrats are prone to exercise discretion in assigning rents, and if the privileged favors that provide the rents are contestable, it is in the self-interest of prospective
beneficiaries of the rents to assign resources to contesting the rents. Because resources used in rent seeking are used to influence distribution rather than to contribute productively to society's output, a social loss is incurred through the output foregone because of rent seeking incentives. The focus of the rent-seeking literature has been on evaluating the magnitude of the social loss.

The modern rent-seeking literature was initiated by Gordon Tullock (1967), who observed that rents attracted resources. Anne Krueger (1974) used the term rent seeking, which has remained the terminology for Tullock's concept. A compendium of papers edited by Buchanan, Tollison, and Tullock (1980) provided the foundation for further development of the concept of rent seeking and applications. The literature of the 40 years since Tullock’s inaugurating paper has been organized and classified in two volumes edited by Congleton, Hillman, and Konrad (2008); volume 1 reprints theoretical developments and volume 2 applications. The introduction to the volumes summarizes the literature.¹

The contribution of the rent-seeking literature to political economy is the identification of a source of inefficiency associated with political discretion that is in addition to the usual efficiency losses measured by Harberger triangles.² Politicians are sometimes described as securing “ego-rents” from political office; that is, they feel good about themselves or obtain expressive utility³ from their political identity and

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² Harberger (1954).
³ Hillman (2010).
incumbency in political office – and perhaps, because of the trappings of power, they feel superior to ordinary citizens. In democracies large sums of money are often spent in contesting political office. The objective of the expenditures may be the ego-rents. However, the utility of politicians also derives from the exercise of personal discretion, in particular in assigning rents. The rents can be a reward for political support or to the extent allowable or feasible can be a source of personal benefit for the political decision maker.

A government bureaucrat can also assign rents through interpretations of laws and definitions of entitlement. Counter-favors for bureaucrats can be provided in the form of bribes or personal benefits-in-kind. The bribes and benefits become contestable rents that attract resources into rent seeking, if the positions of the bureaucrats to whom the bribes and benefits accrue are contestable. In a bureaucratic hierarchy, the lower-level bureaucracy may be obliged to pass parts of bribes received onto superiors; if all positions at levels of the hierarchy are contestable, there is a corresponding hierarchical structure of rent seeking.\(^4\) The important observation is that bribes are indications of corruption but are not in themselves indicators of social efficiency losses, which require that the bribes attract resources to unproductive use in rent seeking. There is therefore a distinction between transfers of income, which affect distribution, and social costs of the transfers, which affect efficiency.\(^5\)

The activities of lobbyists indicate the presence of rent seeking. The lobbyists


\(^5\) Tullock (1971).
could have used their time and initiative and other resources at their disposal productively rather than in seeking to influence political decisions in favor of the individuals, groups, or corporations that have hired them. Lobbyists are important in facilitating rent seeking. Politicians and government officials are understandably reluctant to make themselves open to rent-seeking overtures to all who wish to approach them. Although not illegal, being open to influence can be politically embarrassing if the information is made public. Lobbyists act as intermediaries who are trusted by politicians. Like the politicians and government bureaucrats, lobbyists have an interest in rent-seeking activities remaining surreptitious and out of the view of voters.6

Although not necessarily illegal, rent seeking is unethical in that people seek favors and privilege that allow them to benefit from someone else’s productive effort. Ethical people are deterred from engaging in rent seeking. However, a prisoners’ dilemma arises when it is known that persuasion and influence are means of seeking private benefit from government decisions. A person or group seeking a favorable political decision will lose out against a competitor in the contest for influence, if it is only the competitor who engages in rent seeking. In the Nash equilibrium all contenders seeking privilege from government engage in rent seeking. If the rent-seeking investments are more or less equal, in the Nash equilibrium rent seekers have been provided with no advantage over others who have made the same investments in influence and persuasion. There has been no private benefit compared to circumstances

6 Hillman (2009, chapter 2).
in which all contenders refrained from rent seeking – and there has been a social loss. In the models of rent seeking, the acts of rent seeking are associated with personal benefit because rent-seeking investments enhance the chance of being the successful rent seeker in the contest for a rent. If ethics do not intrude, engaging in rent seeking is a rational personal investment, although there is a loss to society at large from the unproductive use of resources.7

There are therefore two forms of competition. One form is socially beneficial through competitive markets that enhance efficiency; the other through rent seeking is a source of inefficiency.8 The benefits of competitive market have been recognized at least from the time of Adam Smith. Competition for rents has occurred over the course of time but rent-seeking competition was introduced into economic analysis only some 40 years ago.

The theory of rent seeking is part of the broader theory of contests.9 Contests have been studied from the perspective of evoking effort as in a sports contest or evoking behavior beneficial to the organizer of the contest. The focus in these studies has been on contest design.10 In such cases, the contest provides benefit to others who are not themselves participants in a contest and there may be social benefit from the contest. Rent-seeking contests provide private expected benefit to participants and actual private benefit to winners of contests, and no benefit to society. The socially

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7 Tullock (1980a).
8 Buchanan (1980).
9 Konrad (2009).
10 See the papers in Congleton, Hillman, and Konrad (2008, volume 1, part 4, Structure of Contests).
efficient design for a rent-seeking contest is one that provides incentives for the contests not to take place.

2. Cynicism

Rent seeking can be criticized as an overly cynical concept because of the imputations to people’s intentions and motives. Care therefore needs to be taken when the concept of rent seeking is applied, so to avoid possible cynicism. An unqualified application of the theory of rent seeking would interpret all personal favors as investments in rent seeking. Therefore the offer to pay for a cup of coffee or to pay for dinner becomes suspect in terms of attributed intentions to seek to influence decisions and outcomes in ways that benefit the “rent seeker”. It may be that the only reward sought for paying for coffee or dinner is simply pleasant company or pleasant conversation.\(^{11}\) However, in the domain of determination of beneficiaries of decisions of government, asymmetric assignment of benefits raises questions about the determinants of privilege, or why governments (or political and bureaucratic decision makers) have decided to treat differently people who have the same ostensible characteristics and merit.

3. Ideological disposition

Ideological disposition appears to have had a role in whether economic researchers have been willing to apply the concept of rent seeking in economic analysis. The recognition of the incentives of rent seeking is unfavorable to an ideology that is

\(^{11}\) Hillman (2009, chapter 2).
suspicious of markets and sympathetic to government discretion. For example, the ideology may favor extensive government-enacted redistribution of market-determined incomes. The theory of rent seeking recognizes that redistribution through government provides rents and that there are incentives for rent seeking if people believe that they can influence whether they will be recipients of the rents. There are further incentives for rent seeking if the prospective beneficiaries also believe that they can influence the value of benefits. Moral hazard on the part of beneficiaries of redistribution, in the decision to work less or not to work at all in order to obtain benefits from government, is a form of rent-seeking behavior; the social loss from the rent seeking is in the reduced productive effort in order to qualify from entitlements from government. An ideology that views redistribution by government favorably will therefore downplay the importance of, or indeed the existence of, rent seeking.12

The initial barriers to acceptance of the rent-seeking concept can perhaps also be traced to ideology-related expressive utility. If researchers define their identities with reference to the topics that they write about, there is reluctance on the part of “nice” people to write about rent seeking because having a “nice” identity requires writing about “nice” behavior. An ideology that defines people as necessarily “nice” has no place for the impediments of moral hazard to redistribution. The quest for “niceness” might also exclude reference in economic writings to political opportunism and income redistribution as the outcome of a politically determined rent-seeking contest. Political opportunism is however intrinsic to politics; and rent seeking is intrinsic to the relation

between government and the quest for private benefit from political decisions. While the criticism might be that authors who write about rent seeking are being overly cynical, those authors who ignore rent seeking may be either be overly naïve or ideologically committed to a view of the role of government that is compromised by presence of political incentives of self-interest.

In introducing rent seeking and further developing the concept, Gordon Tullock and those who joined him did not set out to describe an ideal world. If the world were ideal, politicians and government officials would always act in the public interest and individuals would devote attention only to productive pursuits and not seek privileged unearned benefits. The emphasis on incentives and self-interest led to the describing of rent-seeking behavior in a matter-of-fact way. Outside of the Virginia school, rent seeking was a topic that attracted attention in Israel beginning in the 1980s, before privatization had occurred and when non-market institutions were still prevalent. The Bar-Ilan School has paralleled the Virginia School in developing the rent-seeking concept. It is of interest that in the autocratic elitist-controlled countries in which rent-seeking behavior has been endemic, economists have with few exceptions tended to refrain from writing about rent seeking.

4. Measurement of the social cost of rent seeking

A basic problem in seeking to measure the social cost of rent seeking is that rent-seeking activities are often unobservable, because politicians, government officials, and

citizens engaged in rent seeking wish rent-seeking activities to be surreptitious rather than visible. Indeed, successful rent seekers have incentives to declare that their privileges are due to their personal competence rather than to success in rent-seeking contests.\textsuperscript{14} It is therefore rare to observe directly the magnitudes of resources used in rent seeking. Measurement of resources used in rent seeking is also difficult because some contenders for a rent will have expended resources unsuccessfully in their surreptitious activities. Rents that are sought may moreover never be awarded, because the political decision makers at which rent seeking was directed did not agree to create the rent.

Although the resources used in contesting a rent may not be observable, it may be possible to observe the magnitude of the rent. The primary question of the literature on the modeling of rent seeking is therefore: If the magnitude of a rent that has been obtained by successful rent seekers can be observed, can the value of the rent be used to infer the social cost incurred in the unobserved acts of contesting the rents? The question regarding the social cost of rent seeking can be framed is in terms of rent dissipation, which is defined as the value of the resources $R$ used in contesting a rent relative to the value of the rent $V$:

\[
D \equiv \frac{R}{V} .
\]

With $n$ contenders for a rent and a contender $i$ making a rent-seeking investment $x_i$,

\textsuperscript{14} Hillman (2009, chapter 2).
Rent dissipation is therefore:

\[ R = \sum_{j=1}^{n} x_j \].

Rent dissipation is therefore:

\[ D \equiv \frac{\sum_{j=1}^{n} x_j}{V} \].

The question regarding social cost is then: What is the value of \( D \), or how much of a rent is dissipated in the activities of the different contenders who contest a rent?

The decision problem of contenders for a rent can be modeled to obtain a value for \( D \). With risk-neutrality, the objective of contender 1 is to maximize expected utility from participating in the rent-seeking contest given by

\[ EU_1 = \rho_1(x_1, x_2, x_3, \ldots, x_n)V - x_1 \]

where \( \rho_1(x_1, x_2, x_3, \ldots, x_n) \) is the contest-success function determining how the rent-seeking investments of \( n \) contenders for the rent of common value \( V \) translate into the likelihood of personal contest success for contender 1.

Gordon Tullock (1967) observed with respect to monopoly that, “regardless of the measurement problem, it is clear that resources put into monopolization and defense against monopolization would be a function of the size of the prospective transfer”, which is indicated in (4) by \( V \). However, which mathematical function describes the contest-success function? There is little or no empirical evidence on which to base an answer to this question. Unlike auctions that have a formal preannounced structure and a rule for designating the winner, there are no preannounced known
rules for success in rent-seeking contests. The problem of non-observed rent-seeking investments is therefore compounded by absence of information concerning the manner in which political and bureaucratic decision makers respond to investments in influence and persuasion when choosing successful rent seekers.

Because of absence of data on rent-seeking investments and lack of information on the form of the contest-success function, empirical applications of the theory of rent seeking have assumed that rent dissipation is complete, or that $D = 1$. Values of social losses associated with monopoly rents have been estimated to be relatively low for the U.S. and U.K. but still consist of significant parts of GNP.\textsuperscript{15} The social cost of contestable transfers in the U.S. has been estimated to be 25 percent of GDP.\textsuperscript{16} For Europe, 18 percent of government revenue has been estimated to be extracted as rent, equal to 7 percent of GNP.\textsuperscript{17} The social loss due to quota rents was estimated to be 15 percent for Turkey and 7.3 percent for India.\textsuperscript{18} A study of the complete Indian economy suggested a social cost of rent seeking of between 35 and 50 percent of GNP.\textsuperscript{19} The empirical studies based on complete rent dissipation involve assumptions about the contestability of rents: that is, are the rents contested or assigned through privilege without contests? There are also questions about what constitutes rent seeking: for

\begin{itemize}
\item \textsuperscript{15} Cowling and Mueller (1978).
\item \textsuperscript{16} Laband and Sophocleus (1992).
\item \textsuperscript{17} Angelopoulos, Philippopoulos, and Vassilatos (2009).
\item \textsuperscript{18} Krueger (1974).
\item \textsuperscript{19} Mohammad and Whalley (1984).
\end{itemize}
example, is advertising by firms rent seeking? Another question is to what extent are changes in government spending the response to demographic change rather than rent-seeking persuasion.

5. The contest-success function and rent dissipation

Rent-seeking models show that rent dissipation is not necessarily complete. The extent of rent dissipation depends on various influences including in particular the contest-success function. Two contest-success functions that have been extensively applied are the Tullock (1980b) and Hillman-Samet (1987) functions.

The Tullock contest-success function views investments in rent seeking as purchases of lottery tickets, with the addition of possible scale effects through the number of lottery tickets purchased. The Tullock function is, for rent seeker $i$,

$$\rho_i(x_1, \ldots, x_n) = \frac{x_i^r}{\sum_{j=1}^n x_j^r},$$

where $r$ is a scale factor for rent-seeking investments. With the Tullock function, complete rent dissipation requires competitive rent seeking, or in practice a sufficiently large numbers of rent seekers. In the symmetric Nash equilibrium of the Tullock contest, the common rent-seeking investment is

\[\text{Littlechild (1981) proposes that Cowling and Mueller (1978) were over extensive in their imputations of rent seeking in quest of monopoly profits.}\]

\[\text{See Katz and Rosenberg (1989), who proposed estimates of the social cost of rent seeking for a number of countries based on the assumption that all changes in government budgets were the consequence of rent-seeking activities.}\]
\[ x = \left( \frac{n-1}{n^2} \right) rV. \]  

(6)

The second-order condition for maximum expected utility requires

\[ r < \left( \frac{n}{n-2} \right). \]  

(7)

There is positive expected utility from participation in the contest if

\[ r < \left( \frac{n}{n-1} \right). \]  

(8)

If the second-order condition is satisfied, there is therefore an incentive to participate in the contest. When \( r=1 \), the Tullock contest is in effect a lottery in which probabilities of success depend on numbers of lottery tickets purchased and rent dissipation is

\[ D \equiv \frac{nx}{V} = \left( \frac{n-1}{n} \right). \]  

(9)

For example, with \( n=2 \), rent dissipation is 50 percent. As the contest becomes more competitive, as indicated by increasing values of \( n \), rent dissipation increases. For sufficiently great values of \( n \), rent dissipation is all but complete.\(^{22}\)

The Hillman-Samet contest-success function describes an all-pay auction; that is, the highest “bidder” wins the “prize”. The all-pay auction results from setting \( r=\infty \) in the contest-success function (5). The all-pay-auction contest-success function has been

\(^{22}\) Baye, Kovenock and de Vries (1994) provided a characterization of the Tullock contest for \( r>2 \). For a comprehensive collection of papers based on the Tullock contest-success function, see Lockard and Tullock (2001).
described as “discriminating”, in the sense that the rule can discriminate among rent seekers and precisely identify the winner; in contrast, the Tullock contest-success function is “non-discriminating” in only assigning probabilities to being a successful rent seeker. The Hillman-Samet contest-success function provides a justification for the assumption of complete rent dissipation that does not depend on the number of rent seekers. In a symmetric Nash equilibrium, with no costs of entry into a contest and risk neutrality of rent seekers,

\[ D = \frac{n\bar{E}x}{V} = 1 \quad \text{for} \quad n \geq 2. \quad (10) \]

In (10), \( \bar{E}x \) is the expected value of a rent seeker’s investment in quest of the rent \( V \). Two or more risk-neutral contenders for a rent on average completely dissipate the rent. The Nash equilibrium all-pay auction involves mixed strategies; it is because of the mixed strategies that the conclusions about complete rent dissipation apply “on average”. With mixed strategies, contenders in a rent-seeking contest choose the value of their rent-seeking outlays from a distribution that specifies the mixed-strategy equilibrium. For example, with 2 rent seekers, the distribution is uniform over the range from zero to the common valuation of the contested rent and the expected value of each contender’s rent-seeking outlay is therefore half the value of the prize; thus together the expected value of the 2 contenders’ outlays equals the value of the prize \( V \). If there are 3

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24 Absence of a Nash equilibrium in pure strategies is evident. Contenders making equal bids cannot be an equilibrium. If a contender bids \( V \), other contenders bid zero, in which case bidding \( V \) cannot be an equilibrium. Nor of course can all contenders bidding zero be an equilibrium.
contenders, the distribution specifying the mixed-strategy equilibrium changes to place greater weight on smaller “bids”, and the bids or outlays of the 3 contenders remain equal to the value of the contested rent. The shifting of weight in the distribution to lower bids continues as the number of contenders in the contest further increases, with the increase in \( n \) always being counterbalanced by the fall in \( Ex \) to maintain the total expected investment \( nEx \) of rent seekers constant.\(^{25}\)

Models with more general contest-success functions than the Tullock or Hillman-Samet forms can also predict complete rent dissipation. Quite generally, in any contest in which increases in a rent seeker’s investment increase the rent seeker’s probability of winning and increases in opponents’ investments reduce the probability of winning, competitive risk-neutral rent seekers dissipate the entire rent.\(^{26}\) Rent dissipation can be shown to be complete when there are only two contenders (as in the all-pay-auction case) under quite general specifications of the contest-success function.\(^{27}\)

Models of rent seeking generally describe the rent sought as a benefit for a point in time. For example, the contested rent is described as an instantaneous monopoly profit or rent from protectionist international trade policies, or an instantaneous benefit received through tax laws or the government budget. Rents tend however to persist


\(^{27}\) Alcalde and Dahm (2010).
over time. The recognition of persistence introduces the possibility that a rent may disappear in the future because the government that has created the rent will have decided to eliminate the rent, or a government may decide to open up the rent in the future for re-contesting. When a rent persists over time, rent seekers compete for the present value of the rent, qualified by the possibility of losing the rent at some time in the future. Complete rent dissipation occurs, provided that the conditions are present for complete dissipation if the rent were viewed as available only at a point in time. Whenever a rent is contested, rent seekers dissipate the expected value of the rent, making allowance for the possible disappearance or need to re-contest the rent in the future.28

6. Institutions and rent seeking

The extent of social loss in a society from rent seeking depends on the society’s institutions.29 The institutions of communism, for example, created a society replete with rent seeking because, in the absence of market allocation, people could only rely for personal benefits on the decisions and favors of others.30

Political culture describes the presumptions of behavior of political and bureaucratic decision makers. In particular, political culture determines the willingness of political and bureaucratic decision makers to respond to rent-seeking overtures.

29 Congleton (1980).
30 Hillman (2009, chapter 2).
Political liberalization without change in political culture can increase rent seeking. In the absence of political liberalization, outsiders without direct access to rent-seeking contests may compete to become insiders who can directly participate for contests for rents. Political liberalization may end the privileges of insiders but, with no change taking place from the political culture of rent seeking, the end of insider privilege increases the contestability of rents and increases the social cost of rent seeking. The maintained culture of amenability of political and bureaucratic decision makers to rent seeking sustains the presumption that personal benefit is to be sought through political and bureaucratic favors rather than personal productive effort.31 Thus, the transition from socialism replaced communist institutions with the institutions of markets and private property. However, with the culture of rent seeking sustained, primary personal benefits were obtained not from productive activity but were sought as rents that could be obtained through privileged privatization of the state’s assets.32

There are no incentives for rent seeking in a market economy in which property rights are perfectly protected and government are not amenable to influence in assigning benefits or in imposing personal costs. There are also no incentives for rent seeking when an absolute non-contestable hereditary monarch preempts all rent seeking, including quests to obtain the position and wealth of the monarch. The advantage of the absolute ruler in preventing contestability was the basis for the case by Thomas Hobbes (1651) for a “leviathan” who would rule absolutely over others. Of

31 Hillman and Ursprung (2000).
course, a society might prefer to forgo Hobbes’ dictator and incur the cost of contestability. Hobbes was influenced by extraordinary turmoil and the beheading of the English king. Justice can also be on the side of revolutionaries, even if revolutions use resources unproductively in contesting the authority of the leviathan.

In autocracies, absolute monarchs and other dictators confront the incentive to use resources in defense of their rents. Rent protection is a form of rent seeking that takes the form of a quest to maintain rents already enjoyed. In monarchies and dictatorships, the best investment that might be made is to replace the ruler and thereby obtain the ruler’s rents. The ruler expends resources on rent defense, which includes identifying potential threats from those people who have the resources required to contest the ruler’s position. Because the ruler views as a threat any individual who has been successful in accumulating personal wealth, citizens confront personal incentives not to be overly successful, so as not to attract the attention of the ruler. The ruler may distribute charity to the citizens for whom productive incentives have been eliminated or curtailed. When the same citizens emigrate to a democratic welfare state, transposition of cultural priors can take place, with the immigrants viewing the government of the welfare state as the replacement of the charity-giving autocratic ruler left behind. The sustained form of rent seeking in the democracy is a continuation of past behavior of not accumulating personal wealth and receiving income transfers from the government.33

Emigration of productive people may also take place from autocratic societies.

33 Nannestad (2004).
The absence of personal freedom provides and incentive to leave. Also, in an autocratic rent-seeking society, personal proximity to a ruler is more advantageous than personal skills and abilities. The sycophants of a monarch or dictator enjoy rents while the remainder of the population is the source of the rents through repression and appropriation. If emigration is possible, those people most disadvantaged in being the source of the rents have the greatest incentive to leave. For a usual contest-success function, inhabitants with a comparative advantage in rent seeking remain and the people with a comparative advantage in productive activities leave. Emigration makes thus the country poorer. Because the exit of productive people reduces the availability of rents that can be obtained by the ruler through rent seeking, the population can unravel through emigration incentives, as the more productive people who had previously remained find themselves confronting new incentives to leave. Adverse selection takes place through emigration.

Low-income countries are consequently often rent-seeking societies that people with a comparative advantage in applying initiative and in productive activity seek to leave. The first application of initiative is in planning and implementing departure to a location where productive abilities are rewarded.34

Economic growth is fostered by new ideas applied by innovating entrepreneurs. In a rent-seeking society, new firms are particularly susceptible to impediments to growth when the rent seekers are government officials and ruling elites who seek bribes for circumventing regulations that have been imposed on business activity.

Large pre-existing firms may on the contrary be favored by government officials and elites because of the rents that such firms can provide; such firms may be moribund and inefficient.\textsuperscript{35} Where there are authoritarian regimes, there are in general close ties between management positions in the large firms and the ruling elites. The close ties facilitate rent seeking. Ideally for the ruling elites, the large firms are “state-owned”. Privatization need not however change the role of a formerly state-owned firm as a source of privileged rents.\textsuperscript{36}

Countries with autocratic institutions can be poor notwithstanding substantial natural resource wealth. In the absence of institutions that protect property rights, including the property rights of the government and the collective rights of citizens, natural-resource wealth is a rent that evokes contestability.\textsuperscript{37}

Foreign aid is a source of contestable rents. The evidence is that foreign aid has been overall ineffective in promoting economic growth and economic development in poor countries.\textsuperscript{38} The aid may be appropriated by political elites, who benefit directly from the appropriated aid, and also benefit indirectly because they do not wish economic growth and a middle class in the population to present a challenge to their incumbency rents. Incentives for rent seeking are present when the political elites

\textsuperscript{35} Murphy, Shleifer, and Vishny (1993).
\textsuperscript{36} Buccola and Candish (1999).
\textsuperscript{37} Mehlum, Moene, and Torvik (2006). The contest can be very cruel, as has been documented in the case of diamonds in Africa. See Ollson (2007).
\textsuperscript{38} Doucouliagos and Paldam (2008)
Rent protection and rent seeking in low-income countries can be part of grossly unethical behavior. Rent protection may entail more than appropriating aid and keeping people poor. In the case of Rwanda, there was genocide when population growth increased the contestability of claims to land, the value of which depended on the price of the principal marketable crop, which in the case of Rwanda was coffee.  

7. Rent creation and rent extraction

A description of rent-seeking behavior requires inclusion of incentives associated with rent creation and rent extraction. Rent seeking may have taken place to persuade governments to implement policies or make decisions that create the rents. After the rents have been created, rent seeking occurs to protect or contest the rents. We can presume that the rents would not have been created in the first place, were there not benefits for the creators of the rents. For example, in the case of protectionist policies, the benefits to the incumbent political decision makers who are the rent creators can be political support in the form of votes or campaign contributions, or more direct personal benefits. Rent extraction takes the form of the securing of benefits to those making the rent-creating and rent-assigning policy decisions. Rent extraction evokes rent seeking when the extracted rents are contestable through the contesting the

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40 Verwimp (2003).
positions of the policy makers. Thus rent seeking takes place when rents are created; when the rents that have been created are contested; and when rents are sought through rent extraction.43

Rent extraction complicates the calculation of social cost of rent seeking because political decision makers may obtain personal benefit from part of the created rent. The resources used in rent seeking provide personal benefit when for example politicians are invited to breakfasts and dinners, and special festivities, or are granted use of corporate jets and associated amenities. The resources used in such ways in rent seeking are socially wasted only if the politicians who benefit are excluded from the society’s measure of total welfare. Insofar as politicians obtain these benefits, the incentives for rent-seeking contests are set in place to determine the successful contenders for office who will benefit from rent extraction through rent-seeking favors.

Rent extraction by firms occurs through moral hazard when government policies are manipulated to take advantage of political sensitivity to unemployment. The moral hazard has been described in terms of a “soft budget”.44 Knowing that unemployment is politically costly, firms can choose to hire excess labor. When threats of unemployment arise because of import or other competition, firms can request subsidies or protectionist policies that sustain employment but also increase the firm’s profits.45

43 Hillman (2009, chapter 2).
44 The term “soft budget” was applied in the context of “market socialism” of Hungary. See Kornai (1980).
8. Rent seeking within government

Rent seeking occurs within government in the course of politicians and government bureaucrats seeking to improve their personal career positions. Much of a politician’s time can be spent in the activity of constructing a base for personal political support. Bureaucrats may be engaged in self-promotion and networking activities that increase their prospects for promotion within the bureaucratic hierarchy; much of the activity may revolve around the lunch calendar, and morning and afternoon coffee or tea. In countries with a culture of corruption, promotion within the bureaucratic hierarchy may require that bribes be paid to superiors. The source of the bribes can be bribes received from lower-level bureaucrats who are themselves seeking to further their promotion prospects and bribes obtained from private individuals seeking bureaucratically dispensed favor and privilege. 46 Again, the bribes, although unethical and illegal, are not a source of social loss. The social loss emerges when the positions to which the bribes accrue are contested.

9. Collective and personal rent seeking

The initial models of rent seeking described private benefits sought by the personal effort of individuals. However, quite often or indeed generally, rent seeking is the collective act of a coalition or group of individuals that form an interest group. The collective rent-seeking effort may be in quest of a common private benefit, as for

46 Kahana and Liu (2010).
example, a policy sought, such as a change in the tax laws or changes in government entitlements. The benefit collectively sought can also be share of a private benefit, for example, a government grant to a region. The group rent-seeking effort may also be in quest of government spending to provide a public good.47

When the benefits are private and shared, different rules can link personal contributions to the collective rent-seeking effort to the sharing of the rent. The incentives associated with different rules determine the extent of free-riding in individuals’ choice of effort. 48 The sharing rules based on individual effort require, of course, that effort be observable. Often the rules cannot be applied because personal effort is not observable.

The personal contributions of individuals to achieving the collective objective of the rent-seeking group can be proposed as somehow voluntarily and cooperatively coordinated.49 Incentives appear, however, more reasonable for explaining individual behavior than non-incentivized voluntary personal effort.

In the case of interest group contesting benefits that are public goods (such as where the government will locate a highway or bridge, or other public-works program, or where the government will locate another type of facility that increases local incomes), rent dissipation is predicted to be low and insensitive to the size of the group

47 Guttman (1978) described members of interest groups voluntarily contributing to the quest to obtain benefits through government grants for agricultural research. Other examples of interest groups seeking rents were described by Potters and Sloof (1996).
49 For example, Grossman and Helpman (1994).
when individuals choose personal rent-seeking contributions as Nash equilibria.\textsuperscript{50} Rent dissipation increases if members of the group of rent seekers seeking a public good can be additionally incentivized, as for example by appeal to “community spirit” or through common ideology.\textsuperscript{51} Expressive utility from personal identity defined with reference to ideology can overcome free-riding incentives associated with the public-good benefit. The common objective may be ideological persuasion. Hence political campaigns can have dedicated volunteers.\textsuperscript{52}

10. Rent seeking without government

Rent seeking is part of political economy, which studies the relation between government and citizens against the background of political institutions. Rent seeking occurs, however, in contexts that do not directly involve government.

10.1 Rent seeking within the firm

Rent seeking can take place within a firm. Such rent seeking has been described as taking the form of managers’ making decisions that increase the value of their own specialized expertise, thereby increasing their incomes and also deterring competition for their positions. Rent seeking by management also takes the form of diversification to provide managers with insurance, should any branches of business activity not be profitable; the diversification is beneficial for management but not for shareholders,

\textsuperscript{50} Ursprung (1990).
\textsuperscript{51} Congleton (1991).
\textsuperscript{52} Ursprung (2011) explains why the evolutionary process of incentivising group members is protracted.
who would benefit from specialization of the firm according to core competence and who can diversify through their personal stock portfolio. Stock markets may internalize such insurance-seeking behavior by management by reducing market values of diversified firms. When rent seeking takes place within the firm, managers are not necessarily rewarded for profits but according to their within-firm rent-seeking competence. Rent creation and protection within the firm is the basis for a theory that explains unemployment as the consequence of rent creation by the firm’s insiders who exclude outsiders from employment. Ownership structure also affects rent seeking within the firm. 53

10.2 Rent seeking and status

Rent seeking occurs in interpersonal relations. Contests for personal status are rent-seeking contests in which the prize is the status achieved. Because status is relative to the achievements of others, the status contest is a prisoners’ dilemma in which in the Nash equilibrium resources have been expended by all contenders and no gain in status has been achieved. In asymmetric status games in which some people have more wealth than others, there are winners who spend the most in the status contest, with the visible act or consequences of spending conferring status, in particular when it is evident that the spending is intended only for status and not for personal need. In modern versions of the status game, the spending for status often takes the form of charitable donations that benefits others. When people in need are thereby helped, the

expenditures in the contest for status are not socially wasteful; however, if the contests create contestable rents, the contests evoke socially wasteful rent seeking.\(^{54}\)

10.3 Rent seeking as wars of attrition in personal contests

Rent seeking occurs when males use resources to compete for a female, or females similarly compete for a male. As in the case of animals, the rent-seeking contest can take the form of a “war of attrition” in which the contender with the most resources or the most patience wins the “prize”. In rent-seeking contests that take the form of a war of attrition, resources expended are again lost to the rent seekers (although the resources may benefit the object of rent seeking) and the value of the resources expended by the successful rent seeker is determined by the value of resources expended by the last competitor to leave the field of competition.

10.4 Rent seeking in academia

Rent seeking takes place in academia.\(^{55}\) There are contests for status, including requisites for personal success through publication. Rent seeking can take the form of seeking to please editors and reviewers without regard for the intrinsic value of editorial and reviewer comments.\(^{56}\) There is social benefit when a paper provides a new insight that adds to understanding of a significant phenomenon. However, if papers are written for personal benefit and provide no social benefit, the characteristics of

\(^{54}\) See the papers in Congleton, Hillman, and Konrad (2008, volume 2, part 6, Societal Relations).

\(^{55}\) Brennan and Tollison (1980).

\(^{56}\) Frey (2005).
socially wasteful rent-seeking contests are present.

Rent creation and rent protection take place when groups of researchers define a field as the subject matter of specialized journals that suite the research group and when professional journals are controlled by rent-creating and rent-protecting insiders. Rent seeking takes place in academia internally within university departments and research institutes through contests for leadership positions and for university and departmental resources. The principle of comparative advantage can then apply; academics who take pride in and enjoy research (which may be a rent-seeking activity) may confront other academics whose comparative advantage is not (or is no longer) research (or even teaching) but who rather have a comparative advantage in rent seeking.

Academic tenure is a means of rent protection; through tenure, academics who would not be offered their contemporary salary at another university or research institute nonetheless continue to receive their salary, the component of which above the best alternative offer is a rent. However, tenure has an efficiency benefit: inadequately performing tenured faculty are willing to offer positions in their departments to superior or potentially superior academics because of the awareness that the superior performance of the newly hired faculty will not in the future threaten their own position. The only impediment to inferior faculty agreeing to hire superior faculty is then envy of social status of superior researchers within the university department or research institute.
10.5 Rent seeking and the legal system

The use of resources in contestability in the legal system has attributes of rent seeking. Rent seeking in the form of distributive contests through the legal system would not occur, if property rights were perfectly defined and enforced, contracts were completely specified, principles of liability were unambiguously defined, responsibilities and obligations in division of property when couples separate or divorce were predetermined, and legal obligations to pay taxes were unambiguously specified. The number of lawyers relative to other professions has been proposed as an indicator of the extent of potential for rent seeking in a society. Tax accountants also assist in a distributional quest, facilitated by imprecision and ambiguities, and also inordinate complexity, in the tax laws.57

10.6 Rent seeking and religion

Religious beliefs are a sensitive and personal subject. Nonetheless, an overview of rent seeking requires recognition of the possible relation between rent seeking and time assigned to religious activities. The rent seeking related to religion can occur without the presence of rent-seeking contests. If people believe in an afterlife, because the number of people that can be accommodated is ostensibly unbounded, there is no rent-seeking contest (the rent being the afterlife) when people engage in activities that are intended to provide rewards in the believed world to come. The time spent on religious

57 Gordon Tullock (1975) observed the link between legal contestability and rent seeking. See also Congleton, Hillman, and Konrad (2008, volume 2, part 3, Political and Legal Institutions).
activities could be used to increase output available in this world but the same is true of all time allocated to non-work leisure activities. If there is rent seeking, the rent seeking therefore has the nature of a personal rent-seeking investment without a contest, with attendant complexities of rents believed or perceived in the world to come. If the quest for merit is through charitable acts, there are social benefits, if rents are not created to be contested by beneficiaries. The personal rent-seeking quest has adverse consequences for others if the religion offers as the rent or reward in the world to come a large number of awaiting virgins for those males who kill themselves in the act of maiming and killing non-believers. Rent seeking takes place within religious hierarchies. It has been proposed that within the Catholic Church rent seeking occurs through contests for promoting sainthood.\textsuperscript{58} The historical foundations for the enmity of the Church toward non-believers have a rent-seeking interpretation in the objective of the Church to protect its tax base of believers. Islam on the other hand requires that a special tax be levied on those non-believers who as “people of the Book” (Jews and Christians) have protected but subservient status; the benefit sought by the Islamic government imposing the tax is not necessarily the tax revenue but through the incentive to convert to Islam to avoid the tax. Religious observance does not entail rent seeking when the intention of people is to raise themselves spiritually, or if the purpose of contemplation and learning is to increase personal awareness of the requisites of ethical behavior; in these circumstances the beneficial consequences of ethical awareness provide benefits for others.

\textsuperscript{58} Ferrero (2002).
10.7 Sacrifices as rent seeking

Personal rent seeking was ingrained in ancient cultures in the form of sacrifices to the "gods". Rewards or rents were sought by giving up valuable possessions to the "gods". Different societies or tribes had their own "gods" to appease and to persuade to provide favors. Child sacrifice was common in many cultures. If there were many "gods" who could provide rents to a group, socially wastefully competition occurred in the rent-seeking investments made in influencing the different "gods". Part of the social cost of the rent seeking was the investment in constructing idols to worship and to which to offer sacrifices. Rent-seeking investments also took the form of constructing elaborate temples in honor of the different "gods". An achievements of Abraham is, though monotheism, the end of competitive rent seeking in seeking favors from different "gods", and, through the outcome of the intention to sacrifice his son Isaac, the abolition of the conception of perceived benefit from child sacrifice. Sacrifices continued in other cultures: for example, when Carthage was besieged by Rome, children of the elite families were sacrificed to the "god" Moloch for the purpose of seeking intervention to save the city. The children died and the city was destroyed in a case of ineffective and certainly unethical rent seeking.

11. The modeling of rent-seeking contests

The first models describing the contesting of rents were motivated by the desire to formulate inclusive measures of the social costs of political discretion that extended
beyond deadweight losses. The political economy foundations were basic to the models. At some point in the development of the theory, rent-seeking models began, however, to take on a life of their own, departing from the initial Tullock and Hillman-Samet formulations. There were many variations of rent-seeking contests to be formalized and studied. The early studies recognized the importance for rent dissipation of the specification of the contest-success function; that the number of competing rent seekers mattered for rent dissipation; that entry barriers and costs of entry into a contest mattered; and that rent dissipation was affected by whether rent seekers are risk averse and whether rent seekers value rents differently. Subsequent models introduced asymmetric information through private information in contenders’ personal valuations of rents; the reward structure for contributions to group effort; whether the rent provides private or collective benefit; whether there is opposition to rent seeking from those from whom the rent would be extracted; whether incumbent beneficiaries of rents have advantages over other rent seekers contesting a rent; whether incumbents can strategically deter or diminish rent seeking by others; whether rent seeking occurs in stages such as a group first contesting a rent and then in a next stage members of the group that has won the rent-seeking contest contesting the rent among themselves; whether there are asymmetries in that some contenders face permanent elimination in repeated contests whereas others live on to contest again;

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59 See the papers in Congleton, Hillman, and Konrad (2008, volume 1, part 1, Rents). On risk aversion and the riskiness of rents, and a review of prior literature of the effects of risk aversion on rent dissipation, see Treich (2010).
bounded rationality in contests; how the structure of prizes affects rent seeking; the timing of rent seekers’ investments; and the permutations of these various circumstances and conditions. It was also recognized that different combinations of circumstances were equivalent. There have been debates among economists about the appropriateness of measurement without theory. We meet the converse in the case of the models of rent-seeking contests. Theory has developed without the possibility of measurement because the activities of rent seeking cannot in general be observed. The contribution of the various models is to show the circumstances and conditions that compromise using the value of an observed rent to approximate the value of the resources used in rent seeking.

Can the value of an observed rent at least be an upper bound to social cost? In sequential bidding in a contest in which the highest bidder wins, participants who enter the contest are caught in a trap because of the ever-present incentive to keep bidding given that past bids are lost. Over-dissipation can result if bidding persists. The incentives to keep bidding (because there is no Nash equilibrium in pure strategies) make it irrational to enter such a contest in the first place given that someone else has entered. In a simultaneous move game, it is rational to bid based on the mixed-strategy equilibrium and over-dissipation does not occur. Over-dissipation can of course occur if people irrationally base their behavior on subjective rather than the objectively true

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60 See the papers in Congleton, Hillman, and Konrad, (2008, volume 1, part 3, Extensions, and part 4, The Structure of Contests) and Epstein and Nitzan (2007) who study various extensions of the basic rent seeking model.

61 For example, Kyung Hwan Baik, Bouwe R. Dijkstra, Sanghack Lee, and Shi Young Lee (2006).
probabilities of winning.\textsuperscript{62} Over-dissipation can also occur when the outcome of a rent-seeking game is an “evolutionary stable equilibrium”.\textsuperscript{63} Another reason for over-dissipation is expressive utility from winning a contest that is in addition to the monetary gain from winning: the concept of complete dissipation would then have to make for a value of the rent-seeking prize that includes expressive utility.\textsuperscript{64}

12. Experiments

Because rent seeking activities are not directly observable, experimental evidence on rent dissipation can be valuable, in particular because the rent-seeking models provide multiple theoretical reasons for under-dissipation of contested rents and also suggest possibilities for over-dissipation. Experiments can replicate the conditions of the rent-seeking models and allow behavior to be compared with the prediction of the models. The experiments in general involve students. There is a body of experimental evidence more or less supportive of the predictions of the Nash equilibria of the rent-seeking models.\textsuperscript{65} There are also indications that students in experiments overinvest in rent

\textsuperscript{62} Baharad and Nitzan (2008).
\textsuperscript{63} Hehenkamp, Leininger, and Possajennikov (2004).
\textsuperscript{64} See Hillman (2010). The expressive utility here is from the identity of being a “winner”.
\textsuperscript{65} Shogren and Baik (1991) concluded from their experiments that behavior in Tullock contests was consistent with the predictions of the model. Potters, de Vries, and van Winden (1998) conducted experiments using both the Tullock probabilistic and Hillman-Samet all-pay-auction contest-success functions and concluded that “the rent-seeking model has predictive power, particularly if one allows for the fact that people sometimes make mistakes or are confused about what to do”. Vogt, Weimann, and Chun-Lei Yang (2002) found convergence in repeated experiments to the equilibrium of the Tullock contest.
seeking relative to predicted Nash equilibria. The overspending declines with risk aversion. In experiments in voting, ultimatum, dictator, trust, and public-good games, expressive utility appears to explain observed departures from Nash equilibria: the students in the experiments forgo small monetary rewards to obtain utility from confirmation of identity as being a charitable, trusting, trustworthy, and cooperative person. In rent-seeking games, in the case of Tullock contests without scale effects, students may purchase additional lottery tickets when in terms of expected monetary payoffs alone the purchases are not “efficient”. In the case of the all-pay auction in the simultaneous-play game, we can doubt whether students have computed the mixed-strategy Nash equilibrium but behavior according to the equilibrium mixed-strategies can well be as random as the students’ actual behavior. Again, overbidding relative to the Nash-equilibrium predictions of monetary-reward-only rent-seeking models may result because of the expressive utility from being the winner.

Observations on rent-seeking behavior are also provided by natural experiments. Commenting on a natural experiment involving legislators in a U.S. state, Gordon Tullock expressed wonder at the small sums of money for which one could buy politicians’ votes relative to the rewards obtained from the politicians’ favorable decisions. If resources were attracted into contesting the politicians’ positions based

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66 See Anderson and Freeborn (2010).
67 Anderson and Freeborn (2010) report “significantly less overspending relative to the Nash prediction among more risk-averse subjects”.
68 Hillman (2010).
69 Tullock (1989).
on bribes, there would have been substantial rent under-dissipation. Perhaps the politicians did not know the value of the rents that they were providing through their policy decisions. Also, perhaps, the politicians may have realized that their single individual votes would in all likelihood not be decisive in ensuring the policies that were sought. In accepting a low payment for a favorable vote, a politician must have anticipated that his or her vote would not be decisive and that colleagues would also respond favorably to the rent-seeking proposition.

13. Rent-seeking models in relation to other political economy models

The models of rent seeking are part of a broader political-economy literature that includes other types of models. There are models that describe political incumbents as choosing policies to maximize political support from different interest groups while also seeking voter support. In these models, policies are determined by political incumbents trading off the political support of different groups. The rent-creating behavior of the political decision maker is explicitly modeled; in contrast, in the rent-seeking models, the political decision maker is implicitly present as the object of persuasion in the creation and assignment of rents.

Another category of models describes policies determined through political competition. In these models, competing political candidates make policy pronouncements to seek political support in the form of campaign contributions from interest groups. The candidates use the campaign contributions in political advertising

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to persuade voters how to vote. Policies implemented and thereby rent creation and rent assignment are endogenously determined through the policy pronouncement of the winning candidate or party. It is assumed that, if elected, candidates implement their promised policies. Behavior of individual members of interest groups is described as the making of Nash-equilibrium campaign contributions to further the collective objective of improving the chances of a favored candidate winning the election. The individual contributions are made based on the stakes in the outcome of the election, which are defined by the differences in rents associated with implementation of competing candidates’ policy pronouncements. In a manner akin to the Tullock contest-success function, the relative values of campaign contributions received by the political candidates determine the candidates’ respective probabilities of winning the election and thereby the supporters’ probabilities of obtaining rents through sought policies.71

The models of political-support maximization by incumbents and the models of political competition are set in a rent-seeking context. However, the models do not address the fundamental question of the value of the social loss incurred due to rent dissipation because of political discretion. The focus is on political discretion in creating and assigning rents rather than on the extent of rent dissipation that occurs in the course contesting rents.

14. Rent seeking in historical perspective

Although analytical rent-seeking models are a development of the later part of the 20th

century, the activity of rent seeking has a long history. I have mentioned biblical times. The Roman Empire has been studied in a rent-seeking context.\textsuperscript{72} Rent extraction in Medieval France has been studied.\textsuperscript{73} Mercantilism has been studied as an example of a rent-seeking society.\textsuperscript{74} Over the course of history, regimes have been autocratic, with but limited exceptions of democracy. Wherever there have been authoritarian regimes, palace intrigues and the equivalent thereof have attracted people’s attention to rent seeking. The communist autocracies were rent-seeking societies. Moral turpitude could also be added to the other injustices and distortions of personal behavior under communism through gender aspects of comparative advantage in rent seeking in circumstances in which money was of limited value.\textsuperscript{75}

Rent seeking is in general an easier task in an autocracy than in a democracy. In an autocracy fewer people need to approve favors and privilege. The ruler alone may decide on the creation and distribution of rents. In a democracy, decision making is more decentralized, with the consequence that it may be necessary to persuade multiple political decision makers to create and dispense rents. The impediments to rent seeking in a democracy have been proposed as a reason why the Industrial Revolution began in England where parliament composed of decentralized decision makers was the fiscal authority and not in more authoritarian Europe.\textsuperscript{76}

\textsuperscript{72} Delorme, Isom, and Kamershen (2005).
\textsuperscript{73} Thaize Challier (2010).
\textsuperscript{74} Baysinger, Ekelund, and Tollison (1980).
\textsuperscript{75} Hillman (2009, chapter 2).
\textsuperscript{76} Tollison (1988).
A federal system of government can limit rent-creating and rent-dispensing opportunities by state or local government. In the earlier years of United States, when state or local governments sought to restrict competition from producers in other localities, the constitutional requirement of free trade among the states prevented the sought rent creation.\textsuperscript{77}

\textbf{15. Societal resistance to rent seeking}

Although the focus of rent seeking is on unproductive behavior and inefficiency, there are aspects of rent seeking related to social justice – or social injustice. The distributional outcomes of rent seeking can be expected to have little or no ethical merit. The case for societal resistance to rent seeking thus involves avoidance of injustice as well as avoidance of inefficiency. It is sometimes proposed that persuasion and education can end a rent-seeking culture.\textsuperscript{78} When rent-seeking activities are not illegal, convincing people to forgo self-interest by not participating in rent-seeking contests is difficult. In general, “educational” ventures or ideologies exhorting people to forgo self-interest have been unsuccessful.\textsuperscript{79} The only way, it would appear, that a society can put an end to the inefficiency and privileged benefits of rent seeking is by assuring that there are no rents to be sought, which requires limiting political and

\begin{flushright}
\textsuperscript{77} Tullock (1991).
\textsuperscript{78} Guttman, Nitzan, and Spiegel (1992).
\textsuperscript{79} Hayek (1988) referred to the “fatal conceit” of attempting to change human behavior so that people would not be responsive to incentives of self-interest.
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bureaucratic discretion to create and dispense rents. The extent that rent seeking exists or persists affects the desirable size of government.\(^80\)

16. Conclusions

The concept of rent seeking has enhanced understanding of the sources of societal inefficiency and also injustice because of the privilege associated with rent creation and rent assignment. The study of rent seeking also brings us into the domain of personal ethics and the dilemmas of personal behavior when we find ourselves confronting rent seekers. The concept of rent seeking is far reaching and encompasses all endeavors aimed at influencing the distribution and assignment of preexisting wealth, from individual behavior to the behavior of entire societies. The primary contribution of the concept of rent seeking has however been to evoke awareness of the social costs of political discretion.

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