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# Where are the Rent Seekers?

## Abstract

In a remarkably simple and yet in one of the most original and insightful observations of 20th century economics, Gordon Tullock observed that there are efficiency losses when public policies and political behavior create contestable rents. Tullock also observed that social losses from contesting rents appeared smaller than might be expected. The question is then raised ‘where are the rent seekers?’ Tullock proposed that rent seeking was restrained by political accountability and ‘free-riding’ incentives in interest groups. We affirm Tullock’s explanations, which can be extended to locate rent seekers under different political institutions. We compare Tullock with Gary Becker, who focused on deadweight losses from redistribution and concluded, in contrast to Tullock, that political redistribution is efficient. The comparison highlights the significance of the recognition of rent seeking. By excluding rent-seeking losses from the social costs of redistribution, Becker could arrive at a conclusion more favorable than Tullock to an ideology that sees merit in extensive redistribution.

JEL-Codes: H110.

Keywords: rent seeking, rent creation, deadweight losses, income distribution, interest groups, contest models, Gordon Tullock, Gary Becker, Donald Wittman.

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## 1. Introduction

At a time when the focus of attention in evaluation of social costs of monopoly and protectionism and of income redistribution more generally was on Harberger (1954) deadweight losses, Gordon Tullock (1967) made the core contribution of identifying as a social cost the time and resources used in contesting politically assigned benefits or 'rents'. Tullock's observation that there were social losses from contestable rents became the basis for a substantial theoretical and applied literature.<sup>1</sup> Contestable rents became part of the theory of public policy.<sup>2</sup> A basis was provided for a positive theory that explained income redistribution as the outcome of contests in which people took what they could from others through political processes (Tullock 1983), in contrast to mainstream normative theory that portrayed an ideal world in which income redistribution is justified as social insurance implemented by a social-welfare-maximizing government (Bergstrom 1938; Samuelson 1947).<sup>3</sup>

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<sup>1</sup> For an overview of the concept of 'rent seeking', see Hillman (2013). Long (2013 [2015]) sets out the basic rent-seeking model with extensions. On more general contest theory, which encompasses 'rent seeking', see Konrad (2009). Papers from the extensive theoretical and applied literature are reprinted in Congleton et al. (2008a, 2008b). For surveys of the different aspect of 'rent seeking' including country case studies, see Congleton and Hillman (2015). Social costs of rent seeking and deadweight losses are often simultaneously present: the interdependence between the two sources of social loss is described by Kahana and Klunover (2014).

<sup>2</sup> A political-economy perspective on public policy includes 'rent creation' and 'rent seeking' as part of the political principal-agent problem (Hillman, 2009, chapter 2; 2015).

<sup>3</sup> Social insurance and the social welfare function can be described as chosen behind a veil of ignorance. Tullock (1981) raised the interesting question whether the people envisaged as being behind the veil of ignorance include populations everywhere, or only, for example, U.S. citizens. He deduced that the intention was not to include all people, no matter where they might be. There are moral-hazard qualifications to the veil-of-ignorance social-insurance theory (see Hillman 2009, chapter 7).

The social losses attributable to contestable rents raise questions about the empirical significance of 'rent seeking'. How prevalent is 'rent seeking' and how high can the social losses from 'rent seeking' be expected to be? With the presence of 'rent seekers' necessary for social losses from 'rent seeking', the question regarding social losses can therefore be framed as 'where are Tullock's rent seekers to be found?'

In searching for answers regarding the empirical significance of 'rent seeking', a first step is to look for data. If public policies create politically assigned rents from which political rent creators themselves benefit, governments however lack incentives to provide data, even if the data were in principle collectable (Hillman 2009, chapter 2). Because of unavailability of data for direct measurement, empirical studies have resorted to indirect methods, which include: changes in the allocation of public spending; the value of budgetary transfers; whether capital cities have more up-scale restaurants and golf courses as venues for the socializing that can facilitate rent seeking; whether lawyers are disproportionately present in a population; and whether the capital cities in which politicians congregate have more people in professions including lawyers that are conducive to lobbying and contesting of ownership of property and ideas. The literature on the indirect empirical measures has been summarized by Del Rosal (2011). The indirect methods provide useful and interesting evidence. The indirect evidence is, however, limited and impressionistic, rather than encompassing and quantitative.

A response to the unavailability of data has been to infer social losses from values of contested rents (or present values - see Aidt and Hillman 2008). Tullock (1967) assumed complete rent dissipation (that the value of resources used in contesting a rent equals the value of the rent) in introducing the social

loss from contestable rents, as did subsequent studies that proposed quantitative estimates (for example, Krueger 1975, Posner 1975, Cowling and Mueller 1978).<sup>4</sup>

Contest theory (Konrad 2009) can be used to reveal when the complete-dissipation assumption is justified. Tullock's original contest model (Tullock 1980) assumed a probabilistic contest-success function and rational utility-maximizing rent seekers. Rent dissipation in the Nash equilibrium of the Tullock contest increased with the number of rent seekers and as scale advantages in rent-seeking outlays increased (see appendix A). Subsequent studies of rent-seeking contests showed that quite high rent dissipation and thus high social losses from rent seeking could be predicted.<sup>5</sup>

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<sup>4</sup> Cowling and Mueller (1978) obtained high estimates of the social costs of rent seeking for the United States and the United Kingdom by defining advertising expenditures in the private sector as rent seeking. The high estimates proposed by Cowling and Mueller could be regarded as undermining faith in a market economy because of the large rent seeking losses attributed to firms' market activities. Littlechild (1981) provided the defense of markets.

<sup>5</sup> Using a general contest-success function, Hillman and Katz (1984) showed that complete rent dissipation occurs in the limit as the number of risk-neutral rent seekers increases without bound; and rent dissipation is quite high when rent seekers are risk averse with constant relative risk aversion. When the scale parameter of the Tullock contest-success function exceeds all bounds, the contest becomes an 'all-pay' auction (the contender making the highest outlay wins and all unsuccessful 'bids' are also paid). Rent dissipation is then, on average, complete for any number of contenders in contests for an equally-valued rent (Hillman and Samet 1987). A justification is thereby provided for the complete-dissipation assumption. Systematic over-dissipation of rents cannot take place in models with rational expected-utility maximizing Nash behavior. Other 'behavioral' assumptions are, however, consistent with over-dissipation and over-dissipation occurs in experiments (Shermeta 2015). Rent dissipation in the basic model in which rents are private benefits is reduced by entry costs into contests (Hillman and Samet 1987) and asymmetric valuations of contested rents (Hillman and Riley 1989).

Tullock observed that there appeared to be less rent seeking and less rent dissipation than might be predicted (Tullock 1972, 1989, 1993). Tullock proposed that contestable rents attract resources (Tullock 1967) and initiated a theory of contests for rents (Tullock 1980), but he also raised empirical questions about the scope of social loss from rent seeking. Social loss from contestable rents was intended to add to inordinately low estimates of deadweight losses from monopoly and protection. Were the losses from rent seeking also too small to warrant concern? As Congleton (2004) noted, Tullock was opening to question the empirical relevance of his own conceptual contribution.

Tullock proposed answers to his own questions. He viewed political accountability as inhibiting rent seeking by requiring rent creation and rent assignment to be indirect and hidden. He also viewed problems of internal organization of interest groups as restraining social losses. We affirm and elaborate on Tullock's proposals. Tullock's proposals for inhibitions on rent seeking and rent dissipation apply more to democracies than to autocracies and 'weak' democracies. We address the role of political institutions in the scope of rent seeking.<sup>6</sup>

To highlight the significance of rent seeking, we compare Tullock with Gary Becker (1983, 1985), who proposed a theory of political contestability of income transfers in which the focus was on deadweight losses as the source of

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<sup>6</sup> Political competition in 'weak' democracies is for display. In 'weak' democracies, incumbents can have the same regime security as is provided by autocracy, with elections taking place but incumbent rulers assured of retaining office. Persistence in office can be due to permanent majorities based on group identity (tribal loyalty or religious affiliation). Because of permanent majorities and minorities, weak democracy often does not persist and is replaced by autocracy. For an uncommon case of sustained democracy with group identity, see Hillman et al. (2015).

social loss from redistribution. Becker concluded, in contrast to Tullock, that political income redistribution was efficient.<sup>7</sup>

## **2. Where are the rent seekers? The case of ego rents**

Tullock's observations about less rent seeking than might be expected motivate a quest to find where contestable rents and rent seekers might be found. In western democracies, a first place to look is political competition.<sup>8</sup> Rent seekers engaging in political competition need not be in quest of money. Quite wealthy individuals can contest political office and use their personal resources to fund their political campaigns, confirming that, rather than money, political competition can involve 'ego rents' or the utility that derives from status and the exercise of power over people, including the power to tax and discretion over the spending of public money.<sup>9</sup>

Competition for 'ego rents' results in rent-seeking losses through political advertising (Congleton 1986). There are also social losses when election results place potentially productive people in marginal perfunctory roles in government or when candidates with socially valuable talents and skills have expended effort in unsuccessful (or successful) political contests.<sup>10</sup>

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<sup>7</sup> Becker received the Nobel Prize in economics in 1991. His principal contribution was to expand the domain of economics into topics previously studied by sociologists.

<sup>8</sup> See Downs (1957). Ursprung (1991) provides elaborations.

<sup>9</sup> 'Ego-rents' appear to have been first noted by Downs (1957), who observed that politicians were motivated by 'prestige and power from being in office, in addition to the income they receive' (p. 28). Brennan and Buchanan (1980) ask whether the 'power to tax' should be constrained, which would then also, besides constraining Leviathan government, constrain ego rents.

<sup>10</sup> Aidt and Dutta (2008) have shown that there can be social benefits from high ego rents. With retrospective voting, high ego rents are socially beneficial by reducing policy-

Narcissist tendencies have been observed in U.S. presidents (Watts et al. 2013). Ego rents are not confined to democracy. Hayek (1944 [1972]) observed that, under communism, the ruler who had won the internal rent-seeking contest to become the communist dictator could be predicted to be an ego-driven megalomaniac who was attracted to the contest for leadership by the complete control that is achieved over resources and people's lives when markets and private property are absent. Ego rents are also associated with the 'big men' of African autocracies (Rowley 2000) and with voting behavior of autocratic governments in the United Nations (Becker et al. 2015). Under autocracy, the competition for ego rents is, of course, not through electoral success. The contest under autocracy usually involves violence.<sup>11</sup>

### **3. Political accountability and rents**

In rent-seeking contests involving private-sector individuals, the benefit sought can be status, similar to politicians' ego rents (Congleton 1989), but more often the rent that is the 'prize' in a contest is objectively measurable as the money or income obtainable through politically designated privilege. Very early on, at least since 1972, Tullock concluded that monetary rents were of an order of magnitude smaller than the value of the benefits being contested, at least in the United States. There was therefore a puzzle to be solved. The puzzle was a focus of Tullock's 1989 monograph *The Economics of Special Privilege and Rent Seeking*.

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created rents of incumbents in political office. In contests in which candidates place different values on achieving political office, contenders with high ego rents are predicted to deter others with low ego rents from competing, leaving the contest to be between candidates with high-ego-rent valuations of political success. Hillman and Riley (1989) showed that, in an all-pay auction with asymmetric valuations of the 'prize', only the two highest valuation contenders compete and that the value of resources used in the contest does not exceed the valuation of the low-valuation contender.

<sup>11</sup> For a case study of regime use of violence, see Fielding (2015).



### 3.1 Political accountability and hidden rents

Tullock's favored explanation for the 'missing rents' and 'missing rent seeking' was that political accountability in democracies limits rent-seeking opportunities by making transparent visible income transfers politically costly. To be politically feasible, transfers or rents needed to be disguised and delivered in indirect ways that are inefficient but are hidden from voters and taxpayers, and from the media.

Taking an example from Tullock (1989, p. 18), rather than directly creating rents for bus drivers through increased incomes, unprofitable bus routes can be subsidized, so increasing demand for bus drivers. The bus drivers receive a rent  $R$  through this indirect means and society incurs an *additional* monetary cost of  $C$ , which consists of the salaries of unrequired drivers and costs of running not fully utilized buses. There are also deadweight losses because of the taxation required to finance the additional public spending. The additional tax-financed cost  $C$  could be converted to additional income for bus drivers, who would then receive a greater rent of  $(R+C)$ . The greater rent would, however, be visible in being directly provided and the visibility would be politically disadvantageous.<sup>12</sup>

With visible transfers politically infeasible, the income transfers to the bus drivers are made indirectly through contrived increased demand for bus drivers. The smaller rent  $R$  is contested by prospective bus drivers and not the greater rent  $(R+C)$ . There is therefore less rent seeking. Taxes and deadweight losses are, however, greater, because of the indirect means whereby bus drivers receive income transfers.

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<sup>12</sup> With full information, a mutually beneficial Pareto improvement would give bus drivers rents of more than  $R$  and reduce the additional costs  $C$  imposed on taxpayers (and also reduce deadweight losses). Again, however, the creation of the rents would be politically unattractive because the rents would be visibly provided.

The contest that results in the inefficient politically assigned rents to bus drivers is usually not observed by taxpayers. The example of the bus drivers is also based on taxpayers not associating near-empty buses with higher tax-financed incomes for bus drivers. If taxpayers were informed (or were not 'rationally ignorant'), because of political accountability, the income transfer to the bus drivers through near-empty buses would not take place.

The creation of the rents for the bus drivers provides political benefits through campaign contributions and votes from bus drivers and their families. The case of the bus drivers is an example of the general phenomenon of inefficient political rent creation and rent assignment that can involve excess employment in bureaucratic hierarchies, regulation of industry, international trade, the environment, and other public policies. For example, similar to the case of the bus drivers, direct subsidies to import-competing industries are efficient compared to tariffs or quotas, but are also more visible because the income transfers to producers take place through the government budget (Hillman, 2009, chapter 4).<sup>13</sup>

### *3.2 Efficient political redistribution*

Tullock's account of social loss can be compared with Gary Becker (1983, 1985). Becker described interest groups competing to receive a transfer of income and to avoid paying taxes to finance the transfer to the other group (a transfer contest – see Hillman and Riley 1989). The competition between the pressure groups is

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<sup>13</sup> The literature on the political economy of protection has described inefficient rent creation through protectionist policies, beginning with Hillman (1982), Cassing and Hillman (1986), Hillman and Ursprung (1988), and Grossman and Helpman (1994). On inefficient rent creation through regulation of industry, see Peltzman (1976). Shughart and Thomas (2015) provide an overview. McKenzie (2015) describes rents created through environmental policy. For a general exposition of contests contrived for political benefit, see Epstein and Nitzan (2015).

summarized by an ‘influence function’ that depends on interest-group spending, relative group size, and other variables. The ‘influence function’ is similar to Tullock’s contest-success function (see appendix A).

Tullock (1967, 1980) viewed the resources used in contesting rents (or used in seeking to change income distribution) as determined by *private* optimization through expected-utility maximization, while, at the same time, the unproductive private use of resources was a source of *social* loss. Interest-group spending on political pressure was for Becker *privately* costly but *socially* costless. Becker focused on deadweight losses as the source of social loss from political redistribution. As a consequence of deadweight losses, taxpayers value the loss of a dollar at more than a dollar and beneficiaries of transfers value receiving a dollar at less than a dollar. Taxpayers accordingly have a greater incentive to exert ‘pressure’ to avoid paying a dollar than income-transfer recipients have to exert ‘pressure’ to receive a dollar. Deadweight losses therefore give taxpayers an advantage in redistributive political ‘pressure’. Becker concluded that, because of incentives to avoid deadweight losses, only redistributive policies with low deadweight losses would survive political competition. In minimizing deadweight losses, redistribution was politically efficient.<sup>14</sup>

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<sup>14</sup> For another view that proposes efficiency in political distribution, see Donald Wittman, ‘*Why democracies produce efficient results*’ (1989) and ‘*the myth of democratic failure: why political institutions are efficient*’ (1995). In Wittman’s view, voters are informed and spending by interest groups does not distract the informed voters from choosing efficient policies (Wittman 2009). Wittman does not regard voters as subject to ‘rational ignorance’ or economic illiteracy. ‘Rational ignorance’ assumes a rational choice to be uninformed by people who could be informed if they so wished. Economic illiteracy allows for people having no awareness of what they do not know. In an empirical study, Tullio Jappelli (2010) finds that human capital increases, and living in a welfare state reduces, economic literacy. People who have invested in knowledge therefore are also more knowledgeable about economics. In the welfare state, where people who live off government income transfers, people are less knowledgeable.

### 3.3 Becker and rent seeking

Becker showed awareness of social costs of rent seeking.<sup>15</sup> He noted that competing interest groups would have reason to cooperate to reduce rent-seeking expenditures.<sup>16</sup> In formulating his conclusions, Becker nonetheless excluded rent-seeking expenditures from the social costs of redistribution.<sup>17</sup>

### 3.4 Tullock's case for the inefficiency of political redistribution

Tullock's case for inefficiency of political redistribution has two components. There are social losses incurred when rents created by public policies are contested. Also, because of requisites of political accountability, governments

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<sup>15</sup> Becker did not cite Tullock (neither in the 1983 nor in his 1985 paper), but, in the latter paper, he wrote (p. 335): "Aggregate efficiency should be defined not only net of dead weight costs and benefits of taxes and subsidies, but also net of expenditures on the production of political pressure ( $m_s+m_t$ ) since these expenditures are only 'rent-seeking' inputs into the determination of policies."

<sup>16</sup> "Therefore, efficiency would be raised if all groups could agree to reduce their expenditures on political influence. Restrictions on campaign contributions, registration of and monitoring of lobbying organizations, limitations on total taxes and public expenditures, and other laws may be evidence of cooperative efforts to reduce 'wasteful' expenditures on cross-hauling and political pressure. Unfortunately, little is known about the success of different kinds of political systems in reducing the waste from competition among pressure groups" (Becker, *ibid*).

<sup>17</sup> Toke Aidt (2003) introduced rent seeking into Becker's model. Aidt showed that Becker's logic is only internally consistent if it is assumed that all groups are organized and active. Taxpayer groups have an incentive to stay passive and this incentive is maximal if the redistribution policy being contested is associated with high (marginal) deadweight cost, which implies that inefficient policies can win the day - the opposite of Becker's claim.

engage in *purposefully inefficient* income redistribution to take advantage of voter ignorance.<sup>18</sup>

#### 4. Interest groups and rent dissipation

The standard contest models describe *individuals* as seeking *personal* benefits (see appendix A). Rent seeking in a democracy is, however, usually not by individuals, but, as in Becker's model, is conducted by interest groups (see Potters and Sloof 1996). Political accountability in democracies affects the *values* of rents. In his Shaftesbury Papers monograph on rent seeking, Tullock (1993) observed that impediments to internal organization of interest groups reduce *rent dissipation*. He agreed with Mancur Olson (1965), who had previously highlighted the free-rider problems associated with interest-group political activity. Tullock (1993, p. 53) noted that rent seeking as a collective activity subject to free riding 'undoubtedly reduces the total amount of rent-seeking activity and mitigates the resource cost to society'.

Tullock's first answer regarding the less-than-predicted scope of rent seeking was that rents were present and perhaps were reduced by political accountability and were hidden. The second answer relating to free-riding in interest groups explains diminished rent dissipation whether rents are hidden or not.

'Free riding' occurs and the cooperative equilibrium is not attained in the Nash equilibrium when individuals in a group contribute to group financing to

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<sup>18</sup> Additional deadweight losses incurred in hiding rents from taxpayers might decrease the value of rents, hence further explaining why rents are smaller than might be expected. If deadweight losses affect rents, someone has to care about the deadweight losses. A relation between deadweight losses and the magnitude of the rent requires the government or the transfer-receiving group to care about inefficiency through taxpayer deadweight losses when the income transfer and the associated deadweight losses of taxation are hidden from taxpayers.

obtain a *public good* that is available with certainty.<sup>19</sup> Rather than a public good that is obtainable with certainty and is *privately* financed by members of a single group, two or more groups can compete in a contest to determine which group will benefit from a *publicly-financed* public good. The identity of the group that will benefit is uncertain and depends on the outcome of the contest in which the groups compete. The important conclusion from contest theory is that, in contests between groups for public-good benefits, in the Nash equilibrium the social costs of rent seeking are substantially reduced compared to contests in which individuals compete for private benefit. Total rent-seeking outlays of a competing group do not exceed the average valuation of the public good of the group's members (Ursprung 1990).<sup>20</sup>

Incentives associated with sharing of benefits can have no role when the rent contested is a pure public good (benefit from a quantity of the public good is simultaneous, without diminution, for all group members independently of group size). Incentives associated with intra-group distribution of benefits are present, however, when contest success provides private shared benefits, such as income transfers received from government. For example, an industry might seek protection from imports that, if granted, increases producers' profits by amounts determined by producers' different market shares (Hillman 1991). When the benefit is income or profits to be shared, it is in principle possible for internal group-organization schemes to provide incentives that redirect intra-group free riding to more cooperative behavior (see Konrad 2009, chapter 6, and appendix C). If side-payments to incentivize behavior of group members are not feasible, the group members will each make the relatively small total rent-seeking outlay indicated in appendix B.

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<sup>19</sup> The inefficiency derives from individuals not internalizing the benefit to other group members from their contributions to group rent seeking. Mutual internalization would result in efficient individual contributions (see for example Hillman, 2009, chapter 3).

<sup>20</sup> The proof is in appendix B.

Low rent-seeking outlays are also indicated when rent-seeking groups benefit from each other's rent-seeking efforts. For example, environmentalists and protectionist interests may both gain from a proposed trade policy but have different valuations of the benefits (see Hillman and Ursprung 1992). In the Nash equilibrium, only the group with the higher stake might contribute to rent seeking, with the other group free riding. The low equilibrium rent-seeking outlays are not a consequence of the average valuation of the group members as in appendix B, but are determined by the highest equilibrium marginal valuation of members in each group, given the equilibrium contributions of other groups, which may be zero.<sup>21</sup>

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<sup>21</sup> When two groups have a common source of benefit, the lower-valuation group does not contribute if, in the Nash equilibrium, the latter group has zero marginal benefit, given the equilibrium contribution of the high-valuation group. The result that only the members of the group with the highest valuation are politically active is robust with respect to the specification of the contest success function but is an artefact of assuming linear cost. Convex cost functions are compatible with interior solutions in which all group members contribute. Moreover, given convex costs, total rent-seeking outlays may vary positively with group size, indicating that the Olson presumption does not immediately follow from the fundamentals of contest theory (see Konrad 2009, section 5.5) and needs to be grounded on empirical evidence.

When the public good sought by a group is congestible (for example, a highway, a bridge, or a school), an increase in the size of the group reduces the value of the contested prize for each member of a group. Larger groups are then less effective at rent seeking, which is consistent with Olson's claim that free riding is a greater inhibition on collective action for larger groups, but for a different reason than proposed by Olson.<sup>22</sup>

## 5. Political institutions

### 5.1 *Asymmetries between democracies and autocracies*

There are asymmetries in rent seeking between democracies and autocracies. Tullock's inhibitions on rent creation and rent dissipation apply less to autocracies than democracies. In democracies a legally binding or informal norm can confine rent seeking to groups.<sup>23</sup> In consequence, rent dissipation is low if intra-group organization has not overcome impediments to cooperation among members of interest groups. In autocracies, rent seeking can be individualistic, beginning from the ego and monetary rents of the ruler, in which case the high-dissipation results of individualistic contest models apply. From Congleton (1984), we have the further observation that rent seeking can be expected to be greater when the dispenser of rents is an individual such as an autocratic ruler, compared to a committee dispensing rents, as would characterize democracy.

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<sup>22</sup> Issues of internal group organization are often assumed away in theoretical models. For example, in *'Protection for sale'*, Grossman and Helpman (1995) assume that industries benefiting from protection have overcome all internal free-rider problems, whereas consumers who oppose protection are unorganized. In the political-competition model of Hillman and Ursprung (1988), groups are 'unorganized' in the sense that individual firms in different industries make independent Nash contributions to political candidates who favor the policies sought by the group's members.

<sup>23</sup> See also Holcombe (2015), who considers 'rent seeking' in a context of constitutionally determined rules.



Greater corruption in autocracies also increases the scope for rent creation and rent seeking (Aidt 2016). Diminished needs of political accountability in autocracies also allow direct visible assignment of rents. The bus drivers would simply receive their increased incomes without having to drive around in empty buses.<sup>24</sup>

### *5.2 Rent seeking in African autocracies*

Country case studies confirm the amenability of autocracy to rent creation and rent seeking. Mbaku and Kimenji (2015) describe the wide scope of individualistic rent seeking in African autocracies and 'weak' democracies. Social norms and political culture do not restrain open personal cash transfers to or from people in government positions and there is no necessity of hiding rent-seeking participation and success. The population need not be protected by the rule of law, but can be clients of the ruler's privilege within a state that is ruled as an extended family over which the ruler presides. From the ruler down, rents are dispensed in the culture of privilege. A culture of patrimonialism reinforces the behavior of seeking of favors from those able to dispense privileged benefits. Tribal and family connections impose obligations of favorable responses to rent seeking. Ganahl (2013, p. 147) observed that: 'Although patronage and clientelism are found in all political systems, these practices represent the core of African politics'.

### *5.3 Rent seeking and communism*

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<sup>24</sup> In autocracies, repression (or the threat thereof) can deter objection by the population to privileged rents for insiders. Still, autocratic governments can confront the discomfort of popular opposition. Falkinger (1999) proposed a model of authoritarian government in which discontent with income distribution can affect 'social stability' and disrupt productive activity.

Communism is associated with pervasive rent seeking (Hillman and Schnytzer 1986; Anderson and Boettke 1997). When markets are absent, favors personally dispensed by others are the means of seeking personal benefit (Hillman 2009, chapter 2). Rent seeking persisted in the post-communist transition, with privatized state assets the source of benefit for rent seekers (Gelb et al. 1998; Hillman and Ursprung 2000; Levin and Satarov 2000). In the post-transition period, rulers (or the state) engaged in rent seeking to reclaim the assets that the state had lost through privileged privatization (Levin and Satarov 2015). Chen Kang and Liu Qijung (2015) describe extensive rent seeking in China with a political monopoly of the ruling communist party in the course of economic liberalization. The rent seeking was often associated with corruption.

#### *5.4 Rent seeking in high-income democracies*

In high-income democracies, there are instances of hidden rent creation such as in the case of bus drivers, and regulation and protectionism have created rents. Rents are also created through logrolling in legislatures. Rewards of rent seeking have included ambassadorial positions and invitations to privileged dinners and gatherings. When politicians in high-income democracies create rents for themselves, the events are, however, extraordinary and are termed 'scandals'.<sup>25</sup> With political accountability and a free press, and with rent seeking principally a group activity, the extensive rent seeking that is part of daily life in autocracies is absent in high-income democracies. Police do not arbitrarily ticket drivers to obtain bribes, customs' officials do not solicit bribes, official documentation such as a birth-certificate can be obtained without harassment to evoke a bribe, and, at high levels of government, private investment does not require bribes for access to a government minister who personally takes a percentage of the investment.

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<sup>25</sup> Kauder and Potrafke (2015, 2016) have studied rent creation in Germany by politicians through nepotism. On British parliamentarians creating rents for themselves, see Graffin et al. (2013). We refer here to political scandals that have no social virtue. Manfred Holler and Bengt-Arne Wickström (1999) studied socially beneficial scandals that change conventions.

In these cases, rent seeking occurs through the contesting the positions of the bribe recipients (Hillman and Katz 1987).

### *5.5 Rent seeking in low-income democracies*

Democracy need not be sufficient to deter rent seeking. Studies of India, a low-income country that is the world's most populous democracy, have revealed endemic corruption (Gupta and Mishra 2007) within a culture of rent seeking (Krueger 1975; Mohammad and Whalley 1984). A free press ensures, however, that rent-creating corruption at high levels of government is a 'scandal' (Marjit and Mukherjee 2015).

### *5.6 Rent seeking in the social-democratic welfare state*

Martin Paldam (2015) has provided a case study of rent seeking in a 'social-democratic' high-income welfare state. Paldam describes a majority 'welfare coalition' that in Denmark has been a net beneficiary of taxation and public spending. With income distribution determined by majority voting (see Tullock 1959, 1988), members of the net-tax-paying minority, if they do not emigrate (on emigration to escape rent seekers, see Epstein et al. 1999), have no choice but to pay for the benefits of the majority. In an act of expressive behavior (Hillman 2010), the minority might as well expressively support the welfare state. No political party may oppose the welfare state. The rents created through majority voting are contested in the form of publicly-financed entitlements sought by the groups that make up the majority welfare coalition.<sup>26</sup>

## **6. Conclusions**

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<sup>26</sup> On rent seeking through the government budget, see Katz and Rosenberg (1989) and Park et al. (2005).

Gordon Tullock drew attention to the social losses from contestable rents but he also observed that there appeared to be fewer rents and less rent dissipation than predicted by contest models and proposed as explanations political accountability and rent seeking by interest groups. Tullock's explanations pertain more to democracies than autocracies. An answer to the question 'where are the rent seekers?' is therefore to look to autocracies, where rent seeking is uninhibited by cultural restraint and political accountability, and effective rent seeking can be conducted personally rather than requiring interest-group activity.

Another answer to the question 'where are the rent seekers?' is that there are none. The normative model of socially optimal income redistribution excludes rent seeking but includes social costs of redistribution through deadweight losses.<sup>27</sup> The same is the case for Gary Becker's model of contestable income redistribution. Ideological aspects can be noted. Becker's conclusion of efficient political redistribution and no rent seeking losses would be welcomed by adherents to an ideology that calls for extensive redistribution of income. Less appealing to the ideology would be Tullock's conclusion of political inefficiency of redistribution based on resources used in rent seeking (although group rent seeking diminishes social losses) and the political benefit from creating rents through inefficient hidden means.

#### **Appendix A: The presumption of high rent dissipation with individuals as rent seekers and private benefits**

In the standard model of a rent-seeking contest with origins in Tullock (1980), *individuals* compete for a rent that is a *private* good. With  $r$  indicating returns to scale from rent-seeking effort or expenditures, with  $n$  contenders, and with a contender  $i$  outlaying  $x_i$ , the contest-success function gives the probability  $p_i$  of contender  $i$  winning the rent as

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<sup>27</sup> For an exposition, see Hillman (2009, chapter 7).

$$p_i(x_1, \dots, x_n) = \frac{x_i^r}{\sum_{j=1}^n x_j^r}. \quad (1)$$

With  $V$  denoting the common valuation of the prize (the rent) in the contest, the expected utility of individual  $i$  who participates in rent seeking is

$$EU_i = \frac{x_i^r}{\sum_{j=1}^n x_j^r} V - x_i. \quad (2)$$

From (2), we establish that, in a symmetric Nash equilibrium all contest participants choose the rent-seeking outlay

$$x = \left( \frac{n-1}{n^2} \right) rV. \quad (3)$$

Expected utility in (2) is strictly positive if

$$r < \left( \frac{n}{n-1} \right). \quad (4)$$

From (3), the total value of resources used in the contest is

$$nx = \left( \frac{n-1}{n} \right) rV. \quad (5)$$

When  $r=1$ , the contest-success function is like a lottery and rent dissipation is

$$D \equiv \frac{nx}{V} = \left( \frac{n-1}{n} \right). \quad (6)$$

When  $n = 2$ , rent dissipation (the value of resources used in rent seeking relative to the value of the rent) in the Nash equilibrium is 50 percent. As  $n$  increases, rent dissipation increases. For example, with  $n=10$ , 90 percent of the rent is dissipated. When in (1')  $r \rightarrow \infty$ , the contest is an all-pay auction (an auction in which bidders lose their bid whether successful or not) with the individual who makes the highest outlay or bid securing the rent. As shown in Hillman and Samet (1987), rent dissipation is then complete on average for any number of individuals, with the expected value of total outlays in the contest equal to the value of the rent.

## Appendix B: Groups and public-good benefits

When we apply the standard Tullock contest success function with two competing groups having respectively  $n$  and  $m$  identical members, and with  $p_1$  denoting the first group's probability of winning, and  $x_i$  and  $y_j$  denoting the individual contributions of members of groups 1 and 2, we have:

$$p_1 = \frac{\sum_{i=1}^n x_i}{\sum_{i=1}^n x_i + \sum_{j=1}^m y_j} . \quad (7)$$

It is straightforward (see Ursprung 1990) to show that, in the simplest case of two competing groups and with linear cost functions, in the Nash equilibrium total rent dissipation is

$$D = \sum x_i + \sum y_j = \frac{v_1 v_2}{v_1 + v_2} , \quad (8)$$

which is bounded upwards by the average individual contestant's valuation

$$\frac{nv_1 + mv_2}{m+n} , \quad (9)$$

where  $v_1$  ( $v_2$ ) denotes the common value of the contested group-specific public good to an individual member of group 1 (2).

When the basic contest model is amended to describe rent seekers as members of interest groups, rent dissipation is therefore much more limited than predicted in models in which individuals compete for a private rent. Moreover, with  $p_2$  the probability of success of group 2, total rent-seeking outlays, and also the groups' respective probabilities of success, as given in

$$p_1 = 1 - p_2 = \frac{v_1}{v_1 + v_2} , \quad (10)$$

are independent of the number of members of the two groups.

## Appendix C: Incentives to contribute within groups

With distribution of a private-benefit rent feasible, the proceeds  $\pi_i$  of individual  $i$  from a share of a successfully contested rent  $R$  can be conditioned on the individual rent-seeking contributions  $x_i$  of the  $n$  group members according to the sharing rule proposed by Nitzan (1991) and re-formulated by Davis and Reilly (1999):

$$\pi_i = \left( a \frac{1}{n} + (1 - a) \frac{x_i}{\sum x_j} \right) R. \quad (11)$$

This rule specifies a convex combination of uniform and contribution-contingent distribution ( $0 < a \leq 1$ ). Fundamental contest mechanisms suggest that appropriately incentivizing group members by this sharing rule will crowd out cooperation in formal group organization regimes (Ursprung 2012). Assuming that the design (as indicated by the parameter  $a$ ) of the rent-distribution scheme needs to be discovered in an evolutionary trial-and-error process, the crowding-out of cooperation is likely to take a long time.

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