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Rent Seeking and Organizational Governance:

Limiting Losses from Intra-Organizational Conflict

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**Abstract:** To be successful, every organization has to reduce rent-seeking losses to below full-dissipation levels. This chapter demonstrates that efforts to curtail rent-seeking losses can explain much about the architecture and procedures of all formal organizations, including governments, firms, and others.

Keywords: Rent seeking; contest avoidance; organizational theory, evolution of organizations

#### 1. Rent seeking, rules, and organizations

Every organization confronts three general kinds of managerial problems, only two of which have attracted significant attention in the new institutional economics literature. First there are problems associated with team production as noted by Alchian and Demsetz (1972), Williamson (1975, 1996) and a very large number of talented scholars inspired by their research. Second, there are a variety of problems associated with information gathering, processing, and asymmetries, which also have implications for organizational design as noted by Meckling and Jenson (1976, 1995), among many others. In addition, there is another neglected class of problems that must be solved by all organizations, namely, the problems associated with

intra-organizational conflict over organizational resources and surplus, that is to say, intra-organizational rent seeking.<sup>1</sup>

Although neglected by most of the literature on the theory of firms and nonprofit organizations, potential losses from intra-organizational rent seeking are sufficiently important that they have had profound effects on organizational design. Without rules and procedures that reduce internal conflict, any organizational surplus that might be created through team production would be consumed by intra-organizational rent seeking among the various persons staffing out the organization, including employees, management, and owners (Congleton 1989). Without rules, organizations, per se, would be unproductive and thus impossible to sustain. Many reward, control, and decision-making procedures within organizations appear to reflect the insights of the rent-seeking literature, although most were adopted long before rent-seeking theory was worked out.

Both the contract and theory of the firm literatures use the term "rents," but they rarely mention potential rent-seeking losses. Instead, they focus on how rents can be extracted by principals from their agents through contract design—often of the take-or-leave variety. In doing so, these researchers indirectly point out that rents can be shifted from one party to another within firms, which implies that intra-firm rent seeking exists and can be profitable. Shifts of rents do not necessarily increase total organizational surplus, although it may.<sup>2</sup> Conflict over the distribution of rents, however, nearly always reduces net receipts by shifting resources from productive to unproductive uses.

The literature on rent seeking suggests that losses from conflict of organizational rents can be reduced by suitably adjusting the "rules of the game." This chapter suggests that many such adjustments have taken place within all robust organizations. However, rent seeking is not a single activity, but a broad class of activities in which innovation can and does take place. As a consequence, intra-organizational rent-seeking losses remain greater than zero, although an

<sup>1</sup> Throughout this chapter, I use the term rent seeking in the broad sense suggested by Tullock (1967) and Congleton (1980), as resources consumed by a process of competition or conflict.

<sup>&</sup>lt;sup>2</sup> See, for example, Kalil, Lawarree, and Scott (2013), who show among other things that "more productive" employees need to receive (limited) rents in order to be induced to fully benefit from their productivity. Early discussion of intra-firm rents are included in Coase (1937, Williamson (1985), and Cremer and McLean (1988).

organization's standing rules and procedures make those losses smaller than implied by many of the seminal contributions of the rent-seeking literature.<sup>3</sup>

This conclusion is developed at length in this chapter. Anecdotes from classic works in organizational theory and history are used to illustrate both the existence of intra-organizational conflict and solutions adopted.

## 2. Rent seeking as the dual of productive effort

To be "organized" means that a rule-based system has been created for conducting the affairs of interest. For example, to realize advantages from team production, formeteurs and their managers adopt a variety of rules that address coordination, informational, and prisoner dilemmas with exit problems. Among the rules adopted are those specifying procedures for recruiting team members and the conditional rewards and punishments of team members, including wage rates and promotions. As in any "contest," an organization's rules determine the returns from alternative strategies at the margin, which in turn encourages some forms of behavior and discourages others within the organization. In this manner, the standing rules determine the equilibrium behavior within the organization—the stable pattern of life that exists within organizations during "office hours." These rules are not entirely rigid or written down, which allows management to adjust the rules as circumstances or goals change.

# 2.1 An illustration: using rules to promote team production

Team production is useful when the productivity of individual team members is increased by others on the team. In such cases, a team's output is greater than the sum of the outputs that would be produced by the independent efforts of the same individuals. The fruits of team production tend to increase as better rules for encouraging effort from team members are adopted and as specialized methods of production are refined. Without appropriate rules, most team members would be inclined to shirk or free ride rather than engage in team production.

<sup>&</sup>lt;sup>3</sup> See Congleton, Hillman, and Konrad (2008a, 2008b) for compendiums of the rent-seeking literature.

The essential problem of team production is illustrated in table 1. In the game on the left, which I refer to as the natural cooperative, the group's output is shared equally by all team members. In the game on the right, a formeteur has created an artificial reward structure for his or her team in which rewards are conditioned on effort levels. Shirking in either game by individual team members frees time for their own use but reduces the productivity of other team members.

In the game on the left, the reward structure of the natural cooperative fails to encourage sufficient productive work to realize all of the advantages of team production. Mutual shirking is the equilibrium outcome. The game on the right demonstrates that the shirking dilemma can be solved by creating a different reward structure. In the managed organization on the right, each team member receives a reward (R) for work and faces a penalty (P) for shirking that is independent of the efforts of other team members.

Table 1: The Team Production Dilemma and Solutions									
The Shirking Dilemma of Natural Cooperative  Team Member B			Organizational Solution to the Rent-Seeking Dilemma  Team Member B						
						Team Member A	Work	Shirk	Team Member A
Work (A)	3,3	1,4	Work (A)	R,R	R,4-P				
Shirk (A)	4,1	2,2	Shirk (A)	4-P,R	2-P,2-P				

The cell entries are utilities, the rank order of subjective payoffs for the team members (A,B). The dilemma in the "natural case" is that both team members shirk rather than work.

Team members will avoid shirking if R > 4 - P and R > 2 - P, thus any combination of rewards and penalties such that R + P > 4 is sufficient to solve this intra-organizational shirking problem. In addition, the reward has to be greater than 2 to attract team members from natural cooperative(s). And, in order to be self-sustaining, the promised rewards can be no greater than 3, since the maximal output is 6. An organization is viable only when conditional rewards reduce the shirking problem, attract team members, and generate sufficient net revenue to sustain the organization.

Note that shirking in this context can also be analyzed as a form of rent seeking, because shirkers attempt to secure a total reward that is above their marginal revenue product. In the natural cooperative, the entire team rent seeks rather than works, yielding a less desirable combination of leisure and income than the (work, work) equilibrium. That time is wasted rather than put to its highest-valued use is indicated by the unrealized Pareto superior move from the lower right-hand cell to the upper left-hand one. Achieving such moves, however, require rules of the sort illustrated by the game on the right. These rewards and penalties simultaneously increase productive activities (working) and reduce rent-seeking activities (shirking).<sup>4</sup>

When well-designed rules can create or free enough resources to support a more complex reward system, such possibilities provide an incentive for formeteurs, managers, or team members to invest in organizational design. This, together with survivorship, tends to promote the development of rules for curtailing intra-organizational rent seeking and for encouraging team production at least cost.

In cases in which rent seeking is simply the dual of the usual productive effort maximization problems addressed by the mainstream organizational literature, little is added to the theoretical analysis by focusing on conflict rather than production. In practice, however, the distinction may still be important because recognizing the form of rent seeking to be punished may be easier than specifying the productive activity to be encouraged.

However, not all intra-organizational rent-seeking losses can be analyzed as the dual of the standard team effort problem.

#### 2.2 Incomplete contracts and rent seeking within organizations

Most optimal contract research assumes that potential team members are passive participants in a one-sided bargaining process in which principals attempt to prevent team members from obtaining rents (income above some hypothetical opportunity cost) through

<sup>&</sup>lt;sup>4</sup>The illustrations may strike the reader as overly simplistic, but it bears noting that a good deal of the theoretical literature on optimal contracts and mechanism design rely upon similar two-player two-strategy set contests. The underlying discreteness of strategy choices in sequential versions of such models makes the analytical mathematics more complex and often produces counterintuitive results, albeit ones similar to the tables here. See for example, Cremer and McLean (1988).

shirking. Team members are represented as second movers in a Stackelberg game in which the first move is made by formeteurs or their agents, which is often a reasonable assumption at the point when a new member is recruited to a firm or other organization.

This is also implicitly assumed in the above illustration; however, it is not likely to be the case after contracts are signed. As Williamson stresses, contracts are never complete and as a consequence, after team members are recruited, gaps in the rules allow both conventional shirking behavior to arise and also other forms of conflict over the organization's surplus (Konrad 2000; Wärneryd 2003). Even hierarchical organizations with well-defined areas of responsibility may suffer from intra-organizational conflict over that surplus, although hierarchy itself can be a method for reducing rent-seeking losses, as developed above by Wärneryd and further elaborated below. For example, Hillman and Katz (1987) demonstrate that the entire surplus of a hierarchical organization can be consumed by intra-organizational conflict within and between the levels of a hierarchical organization. In general, the rent-seeking literature suggests that ongoing conflict over organizational surplus can be very intense and significantly reduce the surplus realized by any organization.

# 3. On the productivity of organizational rule of law: reducing intra-organizational conflict

In at least some cases, rent-seeking losses and productivity are not be dual problems. Consider an extreme case in which there are no rules that constrain conflict within the organization of interest. Suppose that the organization has accumulated a reserve, which is used for capital investments and as a buffer for fluctuations in external conditions, such as weather or market demand shocks. The reserve may be thought of as a cumulative organizational surplus, or as an insurance fund for use in future emergencies. In either case, the existence of such reserves can generate significant conflict.

The following two game matrices illustrate possible gains and losses associated with such conflict. In these games, the payoffs in one cell are negative sum, in two cells they are zero sum, and in one they are positive sum. The latter represents the non-conflictual outcome under which the organizational reserve benefits each team member through increased income security or insurance-like payouts. Ideally, each team member would try to maintain the reserve rather

than capture it for themselves. The off-diagonal cells represent the temptation to use time and other scarce resources to capture or increase one's share of those reserves. Efforts to increase one's share can in principle be "off the clock," taken from non-organizational activities such as personal income, leisure, or sleep. For example "dressing for success" requires time, money, and energy for shopping and grooming. Engaging in social activities to attract the attention and favor of superiors might be conducted in homes and restaurants after hours. The efforts of rivals might also be sabotaged in various ways, as with "whispering campaigns" at social gatherings.

Table 2: Intra-Organizational Conflict									
Negative Sum Conflict in Winner-Take-All Games (without rules)			Organizational Rules and Sanctions as Solutions (rules)						
	Team I	Member B		Team Member B					
Team Member A	Maintain	Fight	Team Member A	Maintain	Fight				
Maintain	1, 1	-2, 2	Maintain	1, 1	-2, 2-P				
Fight	2, -2	-1, -1	Fight	2-P, -2	-1-P, -1-P				
The cell entries are utilities, the rank order of subjective payoffs for teams (A, B) or average payoffs for team members.									

The Nash equilibrium of the contest on the left is the Hobbesian one of "fight, fight" and the result is the classic Hobbesian social dilemma of the all-consuming war of every "team member" against every other. The organization on the right simply forbids particular actions by team members with the aim of reducing losses from intra-organizational conflict. Enforcing such rules (by imposing punishment P on those who violate the rules), increase total team member surplus, but does not necessarily increase "output" in the usual sense of the word. Savings would be realized even if the original forms of conflict were simply replaced with less destructive ones of equal cost. For example, penalties for violence and sabotage may encourage less destructive networking at social gatherings and apple polishing.

Increasing rewards for (productive) work can also be used in some cases to motivate reductions in conflict, as noted in table 1. However, this may not be possible in the game in table 2. Rewarding productive effort rather than punishing unproductive activities would reduce reserves and thereby reduce prospects for organizational survival. Moreover, the use of rewards to reduce unproductive conflict can create other incentive problems, as team members may attempt to invent new arenas of conflict in order to secure new rewards for avoiding counter-productive activities. As a consequence, solutions to intra-organizational conflict problems often involve the use of "thou shall not" rules, supported by penalties that discourage unproductive activities, rather than conditional rewards that encourage productive activities.<sup>5</sup>

The use of penalties is constrained by organizational sustainability constraints, insofar as team members have exit opportunities. The acceptance of penalties by team members implies that members prefer continued membership on more productive teams to membership on other more poorly managed teams without penalties.<sup>6</sup> This requires punishments to be systematically targeted at rent-seekers and shirkers, in an appropriate manner, rather than arbitrarily. Such participation constraints encourage the emergence of organizational rule of law, as noted in Congleton (2011).

That intra organizational conflict of the sort discussed above can occur and be solved through rules is more than a hypothetical possibility, as is indicated by the following anecdote from Frederick Taylor's classic book on scientific management (1914: 51–52).

No one who has not had this experience can have an idea of the bitterness which is gradually developed in such a struggle [to encourage workers to increase output]. *In a war of this kind* the workmen have one expedient which is usually effective. They *use their ingenuity* to contrive various ways in which the machines which they are running are broken or damaged—apparently by accident...He [Taylor]

<sup>&</sup>lt;sup>5</sup> It is interesting to note that Taylor's solution included a device that reduces the firm's incentive to over-punish personnel for engaging in conflict or other uncooperative behavior by giving the fines to charity rather than using them to increase profits.

<sup>&</sup>lt;sup>6</sup> The search costs and lost income associated with temporary unemployment may be sufficient to make punishments possible in firms. Montesquieu's organizational solution to the Hobbesian jungle poses was the creation of mutual defense societies. Exit costs in such cases, could be substantial—a departure from a relatively safe society to the undefended world of the Hobbesian jungle. In such cases, the threat of expulsion from an organization can be a sufficient penalty to address a wide variety of problems.

was told that if he continued [attempting to increase team member effort] it would be at *the risk of his life*.

The intra-firm conflict described above was solved through Taylor's (1914: 51) adoption of the following rule:

There will be no more accidents to the machines in this shop. If any part of a machine is broken the man in charge of it must pay at least a part of the cost of its repair, and the fines collected in this way will all be handed over to the mutual beneficial association to help care for sick workmen. This soon stopped the willful breaking of machines.

Indeed, it was the conflict that Taylor encountered as a young man over his modifications of a pre-existing piecework system (at the Midvale Steel Company) that led him to look for entirely new methods for motivating workman and organizing their work.<sup>7</sup>

### 4. A digression on fragile partnerships as the first organizations

The simple games analyze above tend to make the solutions to team production problems appear straight forward. However, it is quite likely that penalties and conditional rewards to solve team production problems were initially difficult to imagine or implement. If so, the first organizations were likely to be ones for which team production was extraordinarily effective yet the teams themselves were very fragile.

Let us define "fragile teams," as teams that only produce a surplus (increase in desired output) if all members of the team contribute to its production. Fragility of this sort can discourage intra-organizational rent-seeking activities if the rewards of membership are sufficient. To see this, suppose that a single rent seeker eliminates the advantages of team production. If the team production of Table 2 continues only as long as all persons work, the payoffs of the (work, work) cell in each period remain (1,1). In a repeated game, however, the time period of rational calculation shifts from single period interactions toward perpetuity. The conflict payoff in such fragile organizations, in contrast to the cooperative one, is realized only once, because the organization disappears after it is realized. Given this, the present value of

<sup>&</sup>lt;sup>7</sup> Taylor was a pioneer in the development of scientific management methods, and his book *Principles of Scientific Management* is regarded as a classic in the field. The book has more than 9,000 Google citations as of November 2013. (Midvale was a specialty steel company based in Philadelphia.)

the n-period strategy of always working or cooperating is 1/r, where r is the player's discount rate. In contrast, the conflict payoff for each player is at most (2, -2), because it can be realized just once. A commitment to work rather than attempt to steal the reserve would self-enforcing whenever 1/r > 2; that is, in cases in which each team member's discount rate is less than 0.5.8 The "centipede-game structure" of fragile organizations yields long-term cooperation, rather than shirking or conflict.

To sustain long term cooperation on such fragile teams, formeteurs should only recruit team members with relatively low discount rates (r<.5) or high exit costs (which reduce the net benefits of expropriation). Persons who are likely to take the long view (as with family members) would always be preferred to those though likely to leave, other things being equal.

Conflict in fragile teams can also be reduced through rules for sharing team output. For example, equal-sharing rules might be adopted, although they somewhat undermine team production as noted in table 1. On fragile teams such distributional rules can serve an important function by reducing temptations to engage in unproductive intra-organizational conflict. The realization that "we are all in this together" tends to encourage loyalty (increase subjective exit costs) as well.

This may explain why payouts to the founders of new organizations often resemble the natural cooperatives of table 1. New partnerships tend to be small, and when they are composed of persons who bring different skills to the organization, they are often fragile in that the loss of one team member greatly reduces the team's effectiveness and survival prospects. New partnerships often share the proceeds of their enterprises more or less equally and make decisions through consensus. That many businesses disappear with a founding member's retirement or death is evidence that fragility often remains even years after an organization is established.<sup>9</sup>

<sup>8</sup> Note that the fragile organization game has a structure that is similar to the counterintuitive centipede contest but has the opposite and more intuitive implication. The fact that the result is more intuitive may imply that such organizations are actually fairly commonplace.

<sup>&</sup>lt;sup>9</sup> The fragility of startup firms in the post-war period is evident in numerous studies. Several studies find failure rates on the order of 80% after three or four years. This is especially true of small firms and new firms, firms without significant management structure or experience. Nenadic (1993) notes that in Victorian England, very few firms survived their founder's death. Average survival rates of medi-

Success, paradoxically, tends to undermine the durability of such relatively simple organizations by reducing their fragility. As reserves are accumulated, the temptation to engage in conflict over those reserves increases. When reserves increase to the point where they exceed 1/r in the game above, the development of more robust organizational forms becomes necessary for an organization's survival.

#### 5. Organizational architecture: insights from the rent-seeking literature

The rent-seeking literature indirectly suggests that a variety of rules, procedures, and architectures can increase organizational robustness by reducing intra-organizational conflict. And, it turns out that large organizations often have such rules, procedures, and architectures. Although relatively few papers from the rent-seeking literature directly apply their insights to issues of institutional design, most reach conclusions about how efforts in rivalrous contests can be increased or decreased by adjusting various parameters of the rent-seeking contests of interest.

# 5.1. Intra-organizational rigidity—bureaucratization—as a method of reducing conflict

The simplest way to reduce the extent of counterproductive conflict within an organization is to adopt completely rigid rules that make it impossible for anyone to increase his, her, or their share of organizational resources through their own initiative (Congleton 1980). By reducing the returns from rent seeking to essentially zero, no rational individual within the organization of interest will engage in rent-seeking activities. Bureaucratization in this sense reduces team members to cogs in an organizational machine, which mechanically advance organizational goals.<sup>10</sup>

Bureaucratic rigidities may include the centralized assignment of organizational equipment and space (as with academic offices and class rooms); salaries that are determined by exogenous factors such as initial salary, age, experience, or college degree; or in the case of

um-sized firms with deeper management structure are somewhat larger. Aldretsh (1991), for example, reports 10-year survival rates of firms large enough to be tabulated in the USELM data set of the U. S. Small Business Data Base. They find 10-year survival rates of between 23 and 45 percent, varying with the particular industry entered. Survival rates tend to increase with years already survived.

<sup>&</sup>lt;sup>10</sup> The Merriam-Webster online dictionary characterizes bureaucracy as follows: "Bureaucracies are often known for their rigid rules and lack of flexibility. Government characterized by specialization of functions, adherence to fixed rules, and a hierarchy of authority. A system of administration marked by officialism, red tape, and proliferation."

task-specific rewards, through essentially permanent assignments of individual team members to specific tasks. Such customary assignments and fixed rewards may be taken for granted by team members after they join an organization. Insofar as similar structures are used by most other durable organizations, they may be considered simply "facts of life." Long-term alignment of team member interests with those of their organization may be promoted by mechanically linking salaries with time spent in the organization (seniority), which also tends to increase exit costs.

That rigidity itself can increase organizational surplus by reducing wasteful conflict has been mentioned in passing by the microeconomic of the firm and contract literatures. For example, Williamson (1996, p. 98) suggests that "hierarchy uses *flat incentives* because these elicit greater cooperation and because *unwanted side effects* are checked by added internal controls...workers and managers [are] more willing to accommodate, because their compensation is the same whether they "do this" or "do that"...an unwillingness to accommodate is interpreted not as an excess of zeal but as a predilection to behave in a *noncooperative way*...Long-term promotion prospects [within the organization] are damaged as a consequence."

It seems evident that "unwanted side effects" and "noncooperative way" should be interpreted as team-member efforts to use time, energy, and other resources to engage in unproductive conflict with other team members or with management, as in the Taylor anecdote above. The rent-seeking literature implies that "flat incentive systems" indirectly increase organizational surplus by reducing the losses from intra-organizational conflict (Tullock 1980, Congleton 1980).

Note that such structures do not directly address the team production or asymmetric informational problems. No financial incentives are used to align individual interests with organizational interests. Instead, rigidity and flat incentives are used to reduce intra-organizational rivalry and individual initiative in order to reduce unproductive intra-organizational conflict. Other methods would have to be used to induce productive effort, such as recruiting persons with a strong work ethic, "self starters," and "team players." That such rigid systems are commonplace in large organizations suggests that potential losses from

conflict are often greater than the productivity gains that can be induced by more responsive compensation schemes.

#### 5.2 Surprise, flexibility, and delegation: how to share authority

Bureaucratization and centralized management, thus, have a variety of advantages in static, predictable circumstances. However, complete rigidity has disadvantages in a dynamic environment. Creatively responding to unexpected problems and opportunities can often increase organizational surplus. Consider, for example, the unexpected breakdown of a critical machine or absence of a critical team member. In the short run, such events can reduce team output to zero, until a repair is made or the critical team member returns, or is replaced. Rapid responses to such problems tend to reduces cumulative losses more than slower ones.

Knowledge about such problem and their solutions is often readily available only to persons in the organization who can directly observe the problem. Central management cannot adapt as quickly or effectively to changing circumstances, because they either completely lack the information necessary to make adjusts to such problems or receive the necessary information only after a considerable delay.

As a consequence, delegating some authority to persons on the spot—as opposed to reserving it all to the organization's central government—potentially allow more rapid responses to be made and potential losses to be diminished (Taylor 1914, Jensen and Meckling 1995). Such institutional refinements, however, tend to open avenues for intra-organizational rent seeking.

The literature on rent seeking implies that the potential conflict associated with decentralization and delegation have to be managed to realize the advantages associated with flexible, rapid, responses to both pleasant and unpleasant surprises. Indeed, if avoiding intra-organizational conflict is as important as argued above, losses from missed opportunities and unaddressed problems have to be relatively great to justify reductions in rigidity.

One method of reducing the conflict associated with delegated authority is to constrain discretion and limit the "prizes" that can be handed out by individual managers or committees

of managers. Once again, what Williamson calls "flatness" in the reward and resource allocation systems can be used to reduce rent seeking by reducing returns from lower-level efforts to influence upper-level managers to secure greater personal rewards or resources (Tullock 1980, Congleton 1980).

5.3 Some organizational architectures work better than others: function-based versus product-line based divisions of authority

Hillman and Katz (1987) and Wärneryd (1998) suggests that rent-seeking losses within somewhat flexible hierarchical organizations can be further reduced by dividing an organization into more or less self-sufficient independent units. The individual unit surpluses of such "divisions" are smaller and the number of contestants for those surpluses also smaller, which in contests with Tullock-like contest success functions reduces rent-seeking losses, other things being equal. This process of delegation and division of responsibilities creates an internal structure analogous to federalism, with "upper" levels of organizational governance specifying areas of authority for "lower" levels of management.

Structural rigidities can further limit rent seeking at the department and divisional levels, by reducing scope for engaging in "turf battles." The delegation of limited policy making and allocative authority to departments and divisions in turn allows local knowledge to be used to increase productivity and to respond to (local) emergencies. It bears noting that organizational structures do, as predicted by this analysis, tend to be somewhat rigid; insofar as, the hierarchy and domain of authority are rarely adjusted whole cloth.

The rent-seeking literature also implies that some divisions of authority work better than others. Indeed, some divisional structures can increase losses from rent seeking by creating new more destructive methods of competition over the organization's surplus and resources.

Functional Divisions of Authority: For example, functional divisions of authority in which individual stages of production are organized into independent subunits may address emergency response problems and pool expertise, but also place an organization's entire surplus at risk. When the divisions each control a particular stage of product development or production, each subunit can lobby for an increased share of the organizational surplus by blocking or slowing down production in a manner difficult for the organization's central

government to monitor, as was the case for workers destroying equipment in the Taylor anecdote.<sup>11</sup> In effect, each division can stop or slow down the organization's "assembly line," and may use that ability to negotiate for additional resources, higher salaries, shorter hours, longer vacations (downtimes), etc. Emergencies will be "invented" if they tend to increase discretion and thereby a manager's or division's share of organization's surplus or control over resources.

For example, imagine that every product sold by a firm needs plastic packaging and that the packages are designed by a single subunit. Packaging designers make aesthetic as well as protective contributions to each product. During the design phase, it is difficult to assess such a unit's effort level, because the creative process is not entirely predictable. Given this, the managers in charge of package design could insist on greater manpower and equipment than necessary to maximize the net revenues generated by well-designed packages. To lobby for additional resources, new or revised products may be delayed to the point where it affects the output of other divisions. Such effects would, of course, demonstrate the importance of their request for additional resources or need for higher salaries to retain their talented team members.

Similar bottleneck-based rent-seeking risks exist in all organizations in which policies or products are produced in a series of stages, and a division controls a stage of production.

Parallel Divisions of Authority: One method for reducing unproductive intra-division conflict is to reduce the extent to which a single unit can impact the entire organization's output or surplus.

Rather than create divisions by function or phase of production, parallel systems of production can be created. They will be profitable whenever anticipated losses from rent-seeking activities exceed gains from economies of scale. The independence of parallel units reduces a single unit's ability to affect the organization's profits through effects on other units, while the average net

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<sup>&</sup>lt;sup>11</sup>This is one possible application of the anti-commons problem explored in Buchanan and Yoon (2000). Similar problems have also been addressed in the fiscal federalism literature regarding tax authority of higher and lower levels of government (Flowers and Danzon 1984). The rent seeking interpretation of these situations within a single organization simply points out that the ability to veto or tax a firm's total output can be used strategically as a lobbying method, which induces deadweight losses among those competing for organizational resources.

output of similar units can be used to assess both productivity gains and discourage rent-seeking activities.

A regional or product-line architecture also reduces the size of the potential prize that can be achieved through intra-divisional rent seeking and the number of persons actively engaged in rent seeking. All these effects tend to reduce the extent to which resources are diverted to unproductive conflict, as developed in Hillman and Katz (1987) and Warneryd (1998).

Chandler (1962) notes that the first large commercial organizations of the nineteenth century initially adopted functional divisions of authority, but began switching to decentralized parallel systems the 1920s. Williamson (1975) calls this organizational structure the M-form, and notes the informational advantages of this system. Armour and Teece (1978) provide econometric evidence that the M-form yields higher profits than organizational divisions along functional lines. Indeed, during the period of their study (1955–73) the M-form essentially replaced the other organizational forms in the petrochemical industry. Similar arguments are found in a variety of managerial texts, including the popular text on the *Toyota Way* (Liker 2004).

Nonetheless, those authors fail to appreciate that many of the informational advantages realized by the M-structure are ones associated with measuring and avoiding counterproductive conflict over organizational surplus. It is more difficult to hide "soldiering" when independent rivals performing similar tasks exist. Moreover, reducing unproductive intra-organizational conflict differs from shirking or opportunism problems of the sort focused on by Williamson, because organizational resources may be consumed by the conflict without actually increasing average private rents. In many rent-seeking contests, the average individual participant gains no (net) rents, in spite of significant efforts to obtain them.<sup>12</sup>

## 6. Rent seeking by central management and organizational governance

<sup>&</sup>lt;sup>12</sup>Williamson (1996: 378) defines opportunism as follows: "Self-interest seeking with guile, to include calculated efforts to mislead, deceive, obfuscate, and otherwise confuse. Opportunism should be distinguished from simple self-interest seeking, accordance to which individuals play a game with fixed rules that they reliably obey." Essentially, opportunism is behavior that violates the organization's rules and is difficult to detect.

Realizing the potential advantages of flexibility requires a systematic process for cautiously revising existing rules to address short run surprises and long-term problems as they emerge. That is to say, they require an organizational government. How such rule-making bodies should be structured is not much discussed in the economic literature on governance, which for the most part focuses on internal incentive mechanisms that align agent interests with those of the principals, who are usually assumed to be shareholder-owners. It is simply assumed that risk-adjusted returns to equity will be maximized. In an M-form organization, for example, "central management" chooses overall goals and allocates organizational resources among divisions at the margin. However, that a centralized rule-making body will adopt rules to advance an organization's overall surplus rather than simply to increase its own share of that surplus cannot be taken for granted.

A firm's top-level policy maker(s) rarely consist(s) of a single residual claimant or group with perfectly aligned interests as imagined in most economic analyses. Instead, ownership and policy-making authority are usually distributed among managers, owners, and other stakeholders, each with somewhat different interests. Differences in underlying risk preferences or economic theories may lead to disagreements about policies, as may efforts to secure a large share of the organization's surplus for major or minor shareholders, or corporate leadership. Insofar as planning, resource allocation, and rule making are active processes, the usual problems of team production exist within organizational governments, but without an outside authority to correct them through incentivization and organizational design.<sup>13</sup>

Fortunately, an organization's formeteurs do not have to be constitutional or organizational geniuses to adopt rule-making procedures that produce good results on average, because survivorship pressures tend to produce templates for organizational governance that reduce rent-seeking losses, plan effectively, and allocate resources in a manner consistent with maximizing organizational surplus or reserves. Only the systems that have successfully done so will remain on the menu of organizational templates that attract the attention of formeteurs.

<sup>&</sup>lt;sup>13</sup> By this I mean that the government of the organization is its top rule making body. However, external rules may be devised by government to incentivize an organization's top office holders, as with accounting standards and fiduciary duties in civil law.

Possible governing and rule-enforcing structures include formal club or corporate charters of the sort explored in Buchanan and Tullock's (1962) classic work on constitutional design, the various threat-rent sharing schemes outlined in North, Wallis and Weingast (2012), and designs based on the king and council variety analyzed by Congleton (2011: Part I). The divisions of authority and recruitment procedures used are likely to be reinforced by selection processes, internal norms, and pecuniary incentives that encourage an encompassing interest for members of an organization's leadership team (Congleton 2011, Ch. 2). Reliance on rules and conditional rewards is likely to be supplemented by efforts to recruit senior office holders known for their honesty, hard work, and organizational spirit, as well as their job-specific talent and experience. However, recruiting persons with the right internalized norms or values is unlikely to completely eliminate rent-seeking losses, in part because internalized norms are difficult to observe.14

Institutional architecture is also likely to be useful. The above analysis suggests that the division of authority and decision-making procedures will tend to be somewhat rigid to reduce conflict over policymaking authority within and among levels of the organization's management. Nonetheless, the architecture of governance may occasionally have to be revised, because they fail to address the problems or fully use the resources at hand.

For example, when technological advances are taking place that alter the economics of production and distribution, new modes of conflict or other problems may arise that affect the optimal distribution of intra-organizational authority. For example, the rapid dissemination of information made possible by well-designed data storage and retrieval systems increases the efficiency of centralized emergency responses and inventory control and also allows more informed decision making by lower levels of management; but it also create new methods for

<sup>&</sup>lt;sup>14</sup>Note that the knowledge asymmetry problem associated with functional divisions of authority, which are nearly unavoidable in top management, can be reduced to some extent by promoting especially productive managers to higher levels. Such honest managers can use their experience to set output targets, effectively monitor quality, and recognize and punish rent seeking when it occurs. Accurately targeting penalties and promotions is itself a significant form of quality control. However, the parallel divisional measure sketched out below provides a more effective solution, because it allows local knowledge to be used to increase productivity and discourage intra-unit rent seeking.

using informational access as a method of rent seeking and programming techniques as a method of sabotage.

In dynamic settings, standing procedures for revising the organization's governing system can be an important feature of robust organizational governance, although it may also encourage rent-seeking at the organization's constitutional level.

# 6.1 An illustration: how committees and majority rule can reduce rent-seeking losses

One little analyzed institutional device for reducing rent-seeking losses is the use of standing committees to make decisions at both the top levels of organizational governance and within organizational units. Congleton (1980, 1984) demonstrates that competition among rent seekers tends to elicit larger total efforts (and losses) when favors are conferred by single decision makers than when decisions are made by committees. Thus more resources tend to be consumed in conflict for the favor of a single administrator than for that of a committee, such as a board of directors.

Consider the case in which two parties attempt to "purchase" a special privilege from a manager with complete control over the policy of interest. Suppose that the privilege is worth R to the rent seekers and that the highest bidder wins the prize. Party 1 may bid amount  $A_1 < R$ , which can be beaten by Party 2's bid,  $A_1 < A_2 < R$ . In a single-round contest, the second mover would always win and the amount received by the manager would be larger than the smallest bid capable of attracting his attention. Bids tend to escalate in such contests. In a second round, Party 1 would be inclined to raise its bid to  $A_1$ ', with  $A_2 < A_1$ ' < R, as would Party 2 after the new bid by Party 1 is observed (or anticipated). In the limit, the amount paid would tend to escalate toward R and the manager would be able to extract the full "rent" associated with his authority. (Note that pre-committing to a maximal bid,  $A^*$ , would not be self-enforcing by the participants in a sequential contest, because each player would benefit in the next round by bidding a bit more than  $A^*$  to secure the prize, as long as that bid was less than R.)

Now consider efforts to assemble a majority in a three-person committee of managers under the assumption that their votes are for sale or subject to influence through lobbying. Party 1 may initiate the bidding with a bid of (1, 1, 0), which would secure the votes of committee members 1 and 2 in the absence of efforts by Party 2. Party 2 may, however, bid (0,

1.5, .25), which would defeat Party 1's effort by obtaining the votes of members 2 and 3. Party 1 could respond with (.25, 0, .5) and so on. Note that in contrast to the two-party contest for a single pragmatic manager's favor, there is no tendency for bids to escalate when seeking the favor of pragmatic committees. In the illustration, the total bids fall in each subsequent round (from 2 to 1.75, to .75). The bids tend to de-escalate toward the lowest levels sufficient to attract a member's attention.

Notice also that the nature and losses from the bidding process will vary with the rules that constrain (or are supposed to constrain) the behavior of organizational leadership and intra-organizational favor seekers. If votes are literally up for sale, then there is no Tullock-type loss from the rent-seeking game. Thus, purchasing votes from shareholders (proxies) tends to reduce losses from conflict for the votes of shareholders. Resources may be misallocated within the organization if, however, the "auction" is not an open one or authority is misused, but rent seeking losses would be smaller Congleton 1980, 1988.

When votes are not literally sold, but are merely influenced through lobbying or favor trading, rent-seeking investments take a more roundabout form and losses are more likely. These lobbying efforts are likely to generate smaller benefits for the persons that need to be influenced than the amount spent by the rent seekers. This difference represents losses of the Tullock variety.

#### 6.2 Another illustration: the 'king and council template' and rent-seeking losses

Although committees are widely used within all organizations, as with a corporation's board of directors, such committees are normally combined with a more or less independent chief executive of some kind, as with a firm's CEO and board of directors. This structure has various informational and succession advantages, but it creates an institutional venue for conflict, because the CEO and board of directors may disagree about the distribution of control over organizational surplus.

A board of directors and top level of management function as a team, and as true of other teams may be well or poorly motivated to increase organizational surplus according to the selection process and rewards associated with membership on the team. These conflicts have historically been reduced through relatively flat incentive structures and recruiting methods.

CEO's are often recruited by and serve at the pleasure of their board of directors. This tends to align their interests with those of the board, which reduces unproductive conflict. Similarly, the manner in which a board of directors is constituted may affect the degree of conflict within the board, shareholders, and the upper reaches of an organization's management. The board members of publicly held corporations is share weighted elections, which tends to align board member interests with those of major shareholders, the shareholders whose information about a given corporation tends to be best. In the case of private firms without publically held shares, the advisory boards are normally recruited by founders, senior management, and other major stakeholders (financiers, labor, etc.), rather than elected by shareholders. This selection processes also tend to produce boards and CEOs with relatively congruent interests, although in this case it is the board that is selected to be congruent rather than the CEO.

Such recruiting procedures are neglected or taken for granted by much of the economics profession, but the fact that they reduce unproductive conflict is doubtless important for organizational robustness and survival. Without procedures that align the interests of CEOs and boards of directors, intense disputes over the distribution of a firm's profits—between the CEO and shareholders, or senior management and the board of directors—would tend to be the norm rather than the exception.

The extent of such unproductive conflict can be further reduced through the standard methods, including selection of persons who are predisposed to cooperate ("team players"), flat reward systems, penalties for engaging in conflict, decision processes that tend not to attract substantial resource investments, and limits on those eligible to participate. Note that most of these are features of organizational governance structures, although reward structures have become somewhat less "flat" in the past two decades in corporate America.

Losses associated with too much "team playing" by insiders are countered to some extent through the selection of external directors, the number of which is often quasi-constitutional at the level of organizations, and by takeover threats in the case of publicly held companies. In publicly held corporations, capture of the board of directors by management, which is likely to affect the distribution of an organization's surplus, rather than its magnitude, tends to be reduced by frequent shareholder elections for boards of directors.

Major shareholders often hold positions on the board and can directly monitor and attempt to reduce such problems by persuading other directors or shareholders.<sup>15</sup>

# 7. Losses from conflict and the organization of relations between organizations

Although the main focus of this chapter is the extent to which organizational structures have evolved to reduce losses from intra-organizational rent seeking, the analysis also has implications for conflict among organizations and the size of existing organizations. A short discussion of some common steps taken to reduce inter-organizational conflict is sufficient to demonstrate that the rent-seeking model sheds light on many aspects of market structure.

Organizations interact with one another in more or less rule-bound settings, rules that associate different rewards with different modes of interaction. Civil law encourages some sorts of interactions, as with trade, contracts, and price competition; and discourages others, as with fraud, theft, and murder. Within that context, organizations will adopt agreements that reduce unproductive conflict with each other. Contracts will be formal, explicit, and incentive compatible; arbitration boards will be efficient and unbiased. In some cases, implementing the desired rules will require organizations of organizations, consortia, with rules for all members. Such organizations will also use a variety of rules and flat incentives to reduce temptations for conflict among members. In medieval Europe, such consortia were often themselves a form of government, as in the Hanseatic League of medieval northern Europe.

Organizations also have incentives to lobby governments to provide legal systems that reduce unproductive conflict among organizations, because the cost of enforcement can be shifted to other taxpayers and/or exhibit economies of scale may be realized. Thus, civil law may have emerged from organizational efforts to reduce losses from inter-organizational conflict. Such legal systems increase surplus for a wide range of organizations and persons by

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<sup>&</sup>lt;sup>15</sup> Baysinger and Butler (1985) provide an excellent survey of the early literature on corporate policy making, and one of the earliest and most thorough analyses of the effects of board of director composition on (relative) corporate profits. They find considerable evidence that the composition of board members matter, although with a lag. Dalton et al. (1999) provide a meta-analysis of the empirical literature in this area, which also finds support for the claim that the number and composition of boards of directors matter—in spite of external market pressures (survivorship and takeovers) on firms.

reducing the costs of extensive exchange networks, facilitating specialization, and by reducing counterproductive forms of conflict.

Consortia of organizations naturally attempt to reduce all forms of conflict that reduce organizational surplus, even if they produce benefits for nonmembers (consumers). As stressed by the industrial organization literature since Adam Smith, they would attempt to coordinate price and output decisions. As stressed by the rent-seeking literature, they would also lobby governments for monopoly privileges and for rules that directly or indirectly facilitate cartelization and block entry.

When formal cartels or trade associations are difficult to form or illegal, firms will ask governments to adopt rules that achieve similar ends, that is to say regulations that formally or informally limit competition among existing firms or restrict the formation of new organizations with similar goals, as argued by Stigler (1971). It is such activities that caused Tullock (1967) to realize that there are potentially many counterproductive forms of competition in contemporary political-economic systems. The existence of such efforts and their consequences are well described and documented in several of the chapters of this volume.

Inter-organizational conflict also has implications for the optimal size of an organization. Rather than forming a consortia or lobbing government for conflict-reducing rules, an organization may simply expand to bring more of its overall input and output "markets" within the organization's own rules. Vertical integration reduces conflict (and uncertainty) when input suppliers or output distributors have market power and can renegotiate contract terms at will. The problems are similar to those developed above concerning functional based divisions within large organizations. Such suppliers and distributors can use various holdup techniques to extract rents from those both above and below them in the production process. Consistent with this, Chandler (1962) notes that the first large industrial firms undertook vertical integration and expanded sales networks at the same time that they developed internal formal administrative structures that allowed the new larger enterprises to be managed.

Horizontal mergers can reduce conflict over market prices for outputs and allow economies of scale from capital-intensive modes of production to be realized (and safeguarded).

Both mergers and formal trusts were common in the late nineteenth century, as new more capital-intensive methods of production were developed and declining transport and communication costs allowed broader distribution of a single firm or factory's outputs.

Of course, as emphasized by economic textbooks, some forms of inter-organizational conflict are productive for society, if not for the organizations themselves. When firms compete with one another for resources to attract and retain team members and to expand sales, the resultant conflict assures that resources shift to highest-valued uses, the total cost of production is minimized, and that consumer surplus is maximized. Similarly, when politicians compete for elected office, information about policy issues is disseminated and the officials elected have incentives to take into account the interests of broad groups of voters if they want to remain in office. Such contests can produce more value than lost from the resources consumed by them.<sup>16</sup>

For this reason, societies must be careful to avoid adopting rules that reduce all forms of conflict. Some forms of conflict produce positive benefits (positive externalities) for persons and organizations not directly involved in the conflict at hand, as an audience benefits from competition in sporting events, and most consumers benefit from product innovation.

#### 8. Conclusions: Solutions and the dilemmas that remain

This chapter has argued that much about the nature of formal organizations can be understood as consequences of efforts to reduce unproductive intra-organizational conflict—that is, to limit losses from rent seeking. This is not to say that the informational and team production problems focused on by the mainstream literature are unimportant, but that many features of organizations cannot be easily explained by such problems and, moreover, that many of the most important problems concern losses from unproductive conflict rather than increased productivity per se. For example, flat incentive systems and bureaucratization clearly reduce conflict, but do not otherwise encourage greater productivity or align employee interests with those of their organizations. Contests for promotion may encourage increased

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<sup>&</sup>lt;sup>16</sup> Note that campaigns for votes may produce useful information, but may at some point cease to do so. In the latter case, campaign finance rules may increase the surplus obtained from electoral competition (Congleton 1986). In others, it may serve to cartelize politics by making the entry of new candidates and parties more difficult.

productivity (in a very course manner) but only if they promote productive forms of competition rather than intra-organizational rent seeking.

Of course, the organizational solutions in place did not require a complete game-theoretic theory of rent-seeking losses to be worked out. Many specific problems are "obvious," and their solutions critical for the survival of organizations, even if the solutions are less obvious than the problems. At the level of day-to-day problem solving, "necessity is the mother of invention," as the saying goes. Placing such solutions in a general theoretical framework helps us to understand why some institutions are more productive than they appear (e. g. bureaucratization) and may also point to new more effective solutions, insofar as the problems addressed come to be better understood.

Moreover, the problems of intra-organizational conflict are not static, nor always as tractable as illustrative models suggest. This is most evident when new technologies of production or types of organization emerge that inadvertently create new potential modes and venues for conflict that are not addressed by the existing rules. Sabotage and other forms of intra-organizational conflict became individually less costly and therefore effective as bargaining techniques when more round-about modes of production replaced simpler ones during the industrial revolution.

Nineteenth-century conflicts associated with the mechanization of production are legendary and provided many new words for the English language. The power loom riots of 1826 in Lancashire, England, gave rise to the term Luddites. Strikes and other work slowdowns ("soldiering") have been commonplace for more than a century as specialization within and among firms and persons increased. More recently, internet-based sales and distribution may be disrupted through denial of service attacks on rival websites and difficult to trace misinformation campaigns via social media. These were not and are not ordinary principal-agent problems, but instances of organized, aggressive conflict over organizational and social surplus.

Necessity encourages efforts to reduce the level of unproductive conflict, and various partial solutions were worked out as industrialization proceeded. Evidence that the new management and administrative methods associated with the industrial revolution reduced

conflict is provided in Frederick Taylor's classic book on *Principles of Scientific Management* (1914) and Chandler's history of the organizational designs of large firms (1962). What Taylor refers to as scientific management simultaneously increased productivity and reduced intra-organizational conflict:

[D]uring the thirty years that we have been engaged in introducing scientific management there has **not been a single strike** from those who were working in accordance with its principles. ... Scientific management will mean, for the employers and the workmen who adopt it — and particularly for those who adopt it first — the **elimination of almost all causes for dispute and disagreement** between them.

What constitutes a fair day's work will be a question for scientific investigation, instead of a subject to be bargained and haggled over. Soldiering will cease because the object for soldiering will no longer exist. The great increase in wages which accompanies this type of management will largely eliminate the wage question as a *source of dispute*. But more than all other causes, the close, intimate cooperation, the constant personal contact between the two sides, will tend to *diminish friction and discontent*. (Taylor 1914: 135, 142–3)

Similar efforts to reduce losses from unproductive forms of conflict have evidently long affected organizational design and management methods.<sup>17</sup>

That organizational designs and contracts among organizations have evolved to reduce rent-seeking losses does not imply that losses from rent seeking have disappeared. Even in the contemporary West, where the legal setting and organizational institutions are as well developed and binding as anywhere, there is evidence of both legal and illegal rent seeking by organizations and individuals. These activities are sufficiently commonplace to have stimulated a broad range of academic research, including the rent-seeking literature reviewed and extended in this volume. And, there are still a few places where and periods when the extreme Hobbesian predictions of rent-seeking models appear to be relevant for models of organizations and relationships among organizations.

The rent-seeking literature has not very often directly addressed problems associated with intra-organizational conflict, but doing so is an obvious direction for further research.

<sup>&</sup>lt;sup>17</sup> Note that Taylor's "scientific bargain" is a method of introducing rigidity (an exogenous rule) into this potential area of conflict (deciding what a fair day's work entails).

Nonetheless, this chapter demonstrates that the literature on rent seeking sheds very useful light on several important core problems of organizational theory. Efforts to reduce unproductive conflict can account for much about existing organizational designs and also partially explains many of the problems that remain. Indeed, this chapter suggests that reducing losses from rent seeking was necessary for contemporary market economies to have emerged. Such innovations occurred in both private and public sector organizations. Institutional reforms reduced the extent of rent-protection by local and national governments, and also allowed more extensive use of round-about production and extended trading networks.

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