Chapter 17: Firms as Organizations in a Society with Governments

I. Introduction

All organizations with more than a few people also adopt rules—both informal and formal rules—that attempt to resolve coordination and free-riding problems. It is such rules that transform groups of individuals into organizations. Both stable decisionmaking procedures and other rules adopted through those procedures contribute to the effectiveness of every viable organization. Relatively large modern organizations—as emphasized long ago by Max Weber (1904/1922)—also attempt to benefit from delegation and specialization in areas in which they are productive. They create rule-bound standing semi-autonomous centers of decisionmaking for implementing their policies, which is to say that they all have bureaucracies. All large organizations thus also confront the problem of the optimal decentralization of decisionmaking authority.

Many firms adopt federal structures that accord considerable autonomy to regional centers of decision making. Others combine regional centers with task-centered or product-centered centers of decisionmaking. Many of these organizational features are quasi-constitutional in that they characterize the standing procedures through which major decisions are made and policies implemented, which are only infrequently adjusted by the organization.

Such institutional features and the common problems that all organizations have to ameliorate imply that firms (and most other organizations) can be profitably analyzed using public choice ideas and models. However, the models have to be adjusted a bit to take account of relevant differences in the choice settings confronted, the specific aims of their formeteurs, and the unique problems that particular institutional arrangements are designed to overcome. The main purpose of this paper is to undertake a broad-brush analysis of how

this can (and has) been done. The result can be regarded either as a critique of the neoclassical theory of the firm or as a useful extension of it.

In most textbook treatments, firms are modeled as unified organizations with a single overarching goal. Such organizations might exist if there were a single ruler—a firm owner or entrepreneur who perfectly uses institutional design to align the interests of all the persons working within his or her firm with those of its owner. Given those assumptions, a firm's choices can be reasonably assumed to be profit maximizing ones.

Alternatively, if institutional solutions are incomplete, then an extended analysis of organizational issues can explain decisions that do not maximize profits or that appear to advance other objectives that firm owners might have. Many of the unsolved problems are likely to resemble those found in governments, because all organizations face fundamentally similar problems. In the latter case, ignoring imperfections would produce faulty understandings and predictions about how firms operate. In extreme cases, institutional failures may undermine the viability of firms.

In at least some cases, bankruptcy may be caused by institutional failures, rather than or in addition to shifts in the demand for the products of firms that "exit" from particular markets. However, rather than focusing on mistakes made by such a firm's leadership, analysis of institutions would focus on the processes through which such persons were selected for positions of authority.[1]

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[1] The term firm is often used in several ways that are not always internally consistent. Firms are sometimes used in the inclusive sense of all persons or organizations that create things for sale in markets. In which case, laborers are clearly firms—although they are rarely regarded to be such—because they sell labor (e.g. their services during working hours) to other organizations, who, as purchasers, are largely free to end their purchases at will. However, labor is normally not included under the term proprietor—possibly because they have somewhat less ability to define the services that they will sell than an "independent" contractor has. Although contractors also often build at the bequest of customers that have very detailed demands--for buildings or aspects of buildings, for example—that contractors are expected to fulfil. Rather than use the term "firm" to include all producers of things for sale, it is referred to as relatively large groups that are assembled and organized to produce things for sale. Where the term "relatively large" is left purposely ambiguous.

This is not to say that the internal operations of firms have been entirely neglected by economists. For example, various theories of and solutions to agency problems have been developed. However, such problems are often—at least implicitly—regarded to be second order difficulties, rather than the primary reason that firms are organized.[2]

Although large firms must earn net-revenues to be viable, they need not maximize profits to survive except in the most competitive circumstances imaginable (e.g. those termed perfect competition in by economic textbooks).

What this chapter demonstrates is that an organzational perspective can provide many useful insights about the manner in which firms are organized and operate. The analysis and its implications increase our understanding of how firms operate and thereby alters to some degree our models of supply and price determination. It also provides and explanation for behavior that is entirely beyond the textbook profit-maximizing models. For example, it is difficult to account for many decisions by firms to donate to charities, adopt internal policies that raise production costs, and the many controversies among shareholders over issues that imply that firms (and shareholders) are not pure profit maximizers.

II. The Contractual Foundations of Relatively Large Commercial Enterprises

As organizations, firms have a beginning, and many have an end, as with dissolutions or bankruptcy.

[2] Part of the neglect of organizational design issues by economists may be a consequence of over specialization. Within managerial science, discussion of alternative institutions is a main focus of attention. See, for example, Tushman and Nadler (1978), Greenwood and Hinings (1988), Harris and Raviv (2002), or Godwyn and Gittell (2012). The latter is an edited volume that provide a collection of essays on organizational design, including a widely cited chapter by Galbraith, which provides another information processing theory of firm design. There are also journals of organizational design and organizational dynamics. That extensive literature does not, of course, imply that public choice analysis has nothing further to offer.

The initial formation of a firm has many similarities with the contractarian theory of the origin of a state. Both are products of voluntary agreements. Both types of organizations attempt to provide useful services or products to a community or broader public that are initially underproduced or missing. Such market opportunities exist because of what Coase termed transactions costs and others term collective action problems or social dilemmas. As a consequence a standing organization can solve or remediate the problems better than a single agreement or brief episode of collective action.

However, the scope of the required voluntariness is conceptually smaller for firm than for contract-based governments. They need only be supported by a subset of consumers, input providers, and investors—rather than all such persons in a community. Moreover, that voluntariness is real rather than imaginary. However, to succeed, the value-adding nature of trade implies that the organizers (formeteurs) have to more or less continuously have the support of its consumers, input providers and investors—although that population may change through time as subsets of a firm's "community" leave one firm for another, or joint from other firms.

This contrasts with contract-based governments whose conceptual unanimity is only required to initiate a government. After it is founded, it need only satisfy a majority or supper majority of its community members to continue having sufficient support to continue, while having sufficient power to avoid being conquered by one if its neighbors.

The high failure rate of new firms implies that many formeteurs are unable to generate that more or less continuous level of support. Errors in judgements about the value adding properties of its products and services may induce an organization to disappear or attempt to serve a quite different community as it shifts to the production of other products or adopt new production methods. Those who initially are correct about their prospects for profit may continue for years, albeit with relatively minor adjustments to adapt to changing circumstances.

III. A Firm's Quasi-Constitutional Choices

Both firms and governments initially require formeteurs—a person or small group that attempts to determine useful opportunities and to devise decisionmaking procedures that solve their collective action problems that have sufficient support to be adopted. Subsequently, they must determine the proper adjustments for changing circumstances—including the recognition of previously unknown or neglected opportunities. A corporate charter normally states the decisionmaking procedures of the top levels of a firm's government and the purpose of the organization which normally includes profits, the production of particular types of goods and services, aims for innovation, and in some cases other non-economic goals. A corporate charter normally formally commits an organization to particular decision-making rules. Such rules can be altered within limits, but reforms have to be acceptable to a sufficient number of investors and team members that the firm can move forward.

As true of governments that expand through time, an economic organization may also find it useful to alter its initial decision-making procedures and organizations as it grows. The government of a polity may change from direct to representative democracy, create new bureaucracies and positions in the cabinet, and alter its method of finance by adding or expanding its tax systems. Similar reforms are often adopted by firms that grow from small proprietorships into larger entities that can take greater advantage of specialization and to better address its monitoring and incentivizing problems.

Decentralization and a Firm's Bureaucracy

Decisionmaking in large organizations is always decentralized to some degree, because of the advantages of specialization and the need for rapid responses to surprise events in production and in relationships with others beyond the organization. A good deal of relevant information is "local" and known only to those directly participating in the chain of production and consumer relations. Thus, many of the persons occupying positions below the top levels of authority are delegated significant decisionmaking authority.

In some cases, the resulting pattern of decentralization resembles that of federal systems of governance. A large company may have regional divisions that have significant autonomy over product design, production levels, and prices. Competition between the regional units may be profitably used to induce innovation and to reveal shirking. In cases, the pattern of decisionmaking resembles the bureaucracies associated with governments, where particular specialized areas of autonomy are created, as in marketing, supply chain, finance, and research and development. In most cases significant veto authority remains vested in the higher echelons for all "major" decisions. The result is usually a relatively stable pattern of delegated authority to "lower" levels of economic organizations—a corporate bureaucracy.[3]

The usual problems of governmental bureaucracies also exist for the various agencies within firms whose productivity is difficult to judge, as with marketing or research and development departments. Such units may lobby the upper levels of a firm's government for more resources than necessary to complete their tasks at lowest cost, as in a Niskanen's (1968) model of governmental bureaucracy.

The lower levels also transmit information to the upper levels and have some ability to propose changes in the rules that govern them. One of the functions of polycentric systems of decision making is to transmit "useful" information upward through the chain of command with each level passing on what is believed to be most useful to the next level of authority. This process, of course, provide numerous circumstances where opportunistic behavior (e.g. agency problems) can undermine the performance of both economic and other organizations. Niskanen's excess budgets is only one of many such possibilities.

Within firms, such problems are moderated by the possibilities for both internal independent reviews by accountants and other independent efficiency experts. Firms benefit

[3] For overviews, from a non-public choice perspective, see for example, Bititci et al 2011, Sandhu et all, 2019, or Verle, 2014.

from the profit metric for such reviews. Insofar as a center of delegated authority produces tangible effects on a firm's profits, such reviews tend to reduce agency problems relative to those of otherwise similar government bureaucracies, whose metrics are less concrete and measurable (as with contributions to the marginal probability of reelection, future support, or increases in social welfare).

Agency problems are often ameliorated by shifting personnel. Less productive or trustworthy individuals may be shifted to other positions within the organization where skills or trust are less important—or to other firms by expelling them from the company. As in politics, shareholder elections may encourage such shifts when negative consequences are apparent to shareholders.

Even the simplest organizational analysis implies that the assumption that every node of decisionmaking within a firm's organizational structure attempts to maximize the organization's profits is unlikely to be true. Besides the shirking problems that every organization must deal with, there are also the collective choice problems, rent-seeking problems, and agency problems associated with bureaucracy. All of these suggest that profits may be only roughly maximized by a typical large firm—even when its owners completely agree that (risk adjusted) profits should be maximized. [4]

IV. The Seeking and Management of Economic Rents

As true of governments of polities, a firm's decisionmakers naturally have relationships with many others outside the firm. There are the obvious ones stressed in the core neoclassical theory of the firm: a firm's customers and input providers. In both these areas, discretion may create various agency problems, as when one pays a premium for

[4] This is not to say that institutions have never been analyzed by economists, nor that whether or not profits are maximized has never been discussed. However, the public choice line of reasoning differs from that of its precursors. Although it is compatible with Simon's (1991) satisficing or sales maximizing models, it does not require bounded rationality for its conclusions. Moreover, a public choice analysis can explain instances of intentionally unprofitable firm behavior that are absent, or less clear, from the behavioral economics or agency problem perspectives.

inputs or accepts inferior inputs in exchange for kickbacks or because of social relationships unrelated to the firm's interests or offers discounts to friends and family. Other economically significant relationships with governments are also ignored in textbook treatments of firms, although they have been analyzed by the Chicago Political Economy strand of regulatory theory—a line of research initiated by the work of Stigler (1971) and Peltzman (1976). The regulatory and legal environment in which firms operate is not entirely exogenous to their decisions.

The Chicago school of political economy emphasized that firms were often involved in the crafting of regulations. Those activities were considered to be extensions of a firm's interest in profits. Firms devote resource to secure preferential rulings by regulators and attempt to influence legislation that affects their industries up to the point where marginal increases in revenues (of avoidance of losses) equal the marginal cost of lobbying. Similar efforts may be undertaken to lower their tax burdens or to be protected from competitive pressures. In addition to efforts to affect their regulatory environment, firms can also profit by lobbying for various subsidies and also for cost plus contracts to provide governments with goods and services. Together, these lobbying activities can, at least potentially, have non-trivial effects on the profits of both large and small firms.

Such profits are termed rents in the rent-seeking literature that extended and deepened the Chicago school's analysis of economic regulation in 1980s and 90s. The efforts to obtain such preferences is often competitive as emphasized by the rent-seeking literature, because only a subset of firms or industries may "qualify" for the special treatments or subsidies sought. Considerable resources may be invested in such contests and, thus, net profits from such privilege-seeking activities are not as great as they would have been with less competition for them.

In other cases, firms may have shared interests as, for example, might be advanced by changes in the methods used to calculate net revenues or value added that affect corporate or all firm taxes—as with various treatments of accelerated depreciation and capital gains

taxes. In cases in which firm interests do not conflict, free riding may occur, which reduces overall rent-seeking expenditures (and associated rent-seeking losses). Olson (1971) terms cases where free riding is likely to be endemic as latent groups, because little lobbying would occur in the absence of organized economic associations such as the Chamber of Commerce, National Association of Manufacturers, various farm cooperatives, and unions in the United States. However, there are also cases in which free riding is far less than complete, because the interests of some firms are sufficient for them to undertake lobbying without an organization. Such groups of firms are what Olson (1971) refers to as privileged groups.

Note that the neoclassical theory of the firm completely neglects this possible source of profits. It is rarely, if ever, mentioned in chapters that model firm behavior in textbooks on neoclassical economics as a whole.

Such firm-government relationships provide a possible escape from the discipline of markets by shifting public policies away from those that advance moderate voter interests. Such activities may be profit maximizing and affect market prices, without involving production of goods and services to consumers or other producers. Such expenditures also differ from advertising (which may also dissipate profits) because they are not usually efforts to attract more consumers to their products and services, but rather to prevent other firms from competing for "their" customers or toward diverting part of governmental taxes or expenditures from politically inactive groups to those who are.

The normative concerns raised by the rent-seeking literature need not be reviewed here, but that such activities take place clearly undermines several claims about market efficiency. Moreover, tent-seeking may occur within firms as well as in their efforts to profit by affecting governmental policies.[5]

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[5] See, for example, Tullock (1967), Krueger (1974/2008), or Cowling and Mueller (1976.2008)—all of whom assume that profits from currying favor is competitive and thus in equilibrium the returns from rent-seeking are the same as other investments that might be made. Later papers suggested

Rent Sharing

Firms that realize supra-normal profits, whether through innovation or superior efforts at rent seeking, have inputs that have higher marginal revenue products than their counterparts in firms that compete in near Marshallian circumstances. In such case, there is a tension between the input providers who would like to receive their marginal revenue products as wages and firm owner-managers who would rather pay them their opportunity cost wage, prices, and rental rates.

If inputs are simply purchased in competitive markets, the profits will all be realized by firm owners. However, if there is firm-specific human capital that accounts for part of an input's productivity, opportunities to lobby for higher salaries within such firms exist. As a consequence of such activities, there would be some profit sharing or rent sharing among especially valuable input providers, such as members of relatively high-level managers, especially successful sales personnel, or innovative leaders of research and development. In such cases, some of the firm's profits will be shifted to those input providers. Recent economic studies suggest that rents are shared throughout highly profitable firms, although there is some evidence of a decline in such practices (see, for example, Bell et al 2024, or Arai and Heyman, (2009).

The current literature on rent-sharing ignores the possibility that firm members compete in various ways for shares of the larger than normal profits realized by successful firms. The public choice literature on such intra-firm contests begins with Krueger's (1974) paper on rent-seeking which analyzed how intra-firm rent-sharing tends to dissipate profits within monopolistic import-export firms in Turkey and India. Several other public choice scholars have followed in her footsteps as with early papers on intra-firm rent seeking by Hillman and Long (1987) and Congleton (1989).

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that various entry barriers may reduce or eliminate the return-equalizing nature of rivalry for government favor. See Congleton and Hillman (2015) for examples.

Rent Extraction

Firms also engage in rent-extracting activities. They may create contests within the firm or among governments that transfer "rents" from groups within and outside the firm-to-firm owners and upper-level managers. The former is one of the ways that firms reduce their own agency problems. By inducing competition within the firm for bonus or positions with greater salaries and authority, they can often induce extraordinary work effort from their employees—the excess dissipation equilibrium noted by Tullock (1980/2008).

Similarly, by creating decision making procedures for siting their facilities, they can create competitive contests among governments that seek to benefit from the increase tax revenues anticipated if a large firm locates within their territories in a manner analogous to although not identical to those used by governments, as developed in Appelbaum and Katz (1986/2008). Competition among governments for such facilities leads them to promise tax advantages of various kinds and infrastructure improvements, both of which advance corporate interests in profits.

The contests among governments for such facilities have some aspects that resemble rent seeking and others that resemble auctions. One-on-one meetings, detailed proposals for site preparations, reports on input prices and local amenities, dinners out, and so forth—resemble lobbying. The tax preferences offered resemble bids at auctions. Insofar as the entire package influences the final locational decision of a firm, a significant fraction of the local benefits from such facilities may be competed away—but in this case, largely in the form of transfers to the corporations profiting from the "bids" of rival governments.

A large firm has to locate its facilities somewhere—so it intentionally creates such contests to extract some of the local rents generated by their choice of location. News accounts suggests that large firms can extract 10s of millions of dollars of locational tax

receipts in this manner—indeed, much more in some cases.[6] Again, such possibilities for profits or cost reduction are absent from neo-classical models of the firm.

V. Corporate Governance

One of the largest reforms in a firm's governing institutions is associated with shifts from a privately held proprietorship or partnership to a corporate structure where shareholders, in principle, own the firm. A firm's formeteurs often find it useful (profitable or less expensive) to raise capital by selling shares (claims on future profits) than by selling bonds or borrowing from banks or similar institutions. To assure shareholders that their claims on future profits will not be jeopardized by major firm decision, shareholders are (often) given the right to vote for a board of directors that have veto power over major firm policies and/or the ability to select (or fire) the firm's CEO. Shareholders vote their shares, which creates a weighted voting system analogous to ones that were occasionally used to select members of parliament in the late medieval and early modern periods in Northern Europe. The exchange of money (capital) for veto power, in turn, resembles the constitutional bargaining that gradually shifted the center of policy making authority form the king dominate ones of the medieval period to the parliamentary dominate ones in the modern period (Congleton 2011).

When majority rule is used to select boards of directors who, in turn, elect the CEO, shareholder governance resembles a prime ministerial system. When shareholders vote directly on the CEO, shareholder governance resembles a presidential system.

When shareholders hold roughly equal numbers of shares, there are tendencies for median voter or moderate outcomes. And, insofar as shareholders are all interested in

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[6] As an extreme example, *Politico* (February 2019) reported that Amazon received several billion dollars of tax preferences if it had located one of its East Coast regional centers in New York. Evidently, according to that report, the amounts had briefly exceeded a trillion dollars during the bargaining process. https://www.politico.com/states/new-york/albany/story/2019/02/19/with-amazon-deal-dashed-new-yorks-vast-tax-breaks-called-into-question-858517

profits, but disagree about circumstances, the median voter may have unbiased and accurate estimates of those circumstances as per the Condorcet Jury Theorem (Grofman et al, 1983, Congleton, 2007). However, when shareholding is unequal, the largest shareholders are far more likely to be members of the majority than any small shareholder, as demonstrated by the various power indices applied in political research (see for example, Steunenberg, et al, 1999 or Holler, 2004). This weighted voting effect has larger effect on a firm's policies when large shareholders have different degrees of risk aversion or have goals in addition to profits that they want "their" company to advance, because it in such cases that shareholder interests tend to vary and votes over company policies or directors most contentious and consequential.

Insofar as CEOs may be replaced by the votes of their boards of an elected board of visitors or by the direct votes of shareholders, successful CEOs will, among other things, systematically advance the interests of pivotal shareholders. When CEOs are employees, rather than founders, their managerial interests are to some extent induced by those of their boards of directors and shareholders. Conversely, when boards of directors are appointed by the CEOs (as advisory boards tend to be), the boards will tend to favor the policies of their CEO's in order to be kept on the board.

Retaining one's position is generally in the interest of the persons holding top levels of authority in firms, just as it is in governments. High salaries, deference, and status are all associated with such positions.

The identity of the pivotal shareholder differs from that of electorates in democracies because corporations use weighted voting systems. The votes cast are normally proportional to the shares owned, rather than the number of persons owning shares. The voters of large blocks tend to be founders or investment companies that are supposed to represent the fiduciary interests of their investors—although the latter are not always clear, and agency problems exist in those relationships.

If shareholders had identical interests—as implicitly postulated in textbook models of the firm—the voting methods would be largely irrelevant, and the results would tend to be unanimous agreements about both the identities of boards of directors and corporate policies. Disagreements among shareholders arguably tend to be narrower than among voters in contemporary democracies, because of the ease of selling shares relative to migrating between polities. Self-selection thus tends to generate relatively homogeneous populations of shareholders, so the assumption that a company's shareholders have uniform interests can be justified. However, news accounts of contested elections for boards of directors and over major policies indicate that disagreements, nonetheless, continue to exist.

In some cases, this is because major shareholders have interests that are induced by their organizations, as with state pension funds or investment firms that provide manage index funds for their investors. A government's pension managers may have interests that include ideological or electoral goals in addition to interests in profits. Differences between shareholder activists and "ordinary" shareholder may exist because of differences in risk aversion or expectations about future developments in the markets serviced by the firm of interest. Election models imply that all of these differences may affect the voting behavior of shareholders and thereby of a company's boards of directors and CEO.

Although there is often considerable support among shareholders for status quo policies, many "activist" investors favor significant changes or even dissolution of the company through sales of its assets.

Public choice theory suggests, those with the most at stake are the most likely to vote. In addition, the power-index effect of weighted voting reduces the probability that a small shareholder's vote is influential. Together, these effects make holders of relatively few shares

less likely to cast votes than major shareholders, which magnifies the electoral effects of large holdings.[7]

Pivotal Shareholders

In this context, insofar as shareholder votes are undertaken independently of one another, the median shareholder (who is likely to be a major shareholder) may be said to determine the interest of board member who wish to retain their positions. Average and above average returns on shares held would tend to induce votes favoring the status quo, other things being equal. Below average returns, on the other hand, would tend to induce opposition to the status quo and lend support of large activist investors—again, other things being equal.

However, one of the things that may not be equal is a firm's production of non-profit service S—e.g. services that do not enhance profits but are nonetheless of interest to a majority of its shareholders, and therefore their boards of directors and CEO. In such cases, a firm's expenditures on S are not a sign of agency problems as sometimes argued, but of the preferences of their pivotal shareholders and through them by their boards of directors—to undertake such expenditures or other policies that tend to raise production costs without increasing productivity. Such shareholders are willing to accept a somewhat lower rate of return on their shares in order to advance their nonpecuniary goals.

The firms owned by such shareholders are not pure profit maximizers, although they do not entirely neglect profits, because of other goals that their shareholders—especially ones likely to be pivotal—want the firm to advance. This explains why such firms want their names listed on the brochures of the various museum, theaters, research projects, public

[7] See, for example, Brav, Cain, and Zytnick (2022) for evidence that individual shareholders (non-institutional investors) participate in shareholder elections at far lower rates than those holding large blocks of stock (institutional investors)—as might be expected from public choice models.

Large shareholders tend to be wealthy and so the principle of diminishing relative risk aversion holds. See, for example, Morin & Suarez (1983).

infrastructure, concerts, lectures, sports teams, etcetera that they sponsor—rather than being anonymous donors. If these expenditures were all agency problems, they would not be advertised. However, it is clear that the such firms (and their foundations) want to be known for their "V" services, as well as their other more market-based activities.

Tiebout, Shareholders Mobility, and the Limits of Takeover Threats

Unlike political electorates, shareholders can very easily mover from one "district" to another by selling their shares in one company and purchasing those of another. By advertising their "public" projects—of which there are too many kinds to completely list here—firms tend to attract the shareholders that favor such projects.

The population of shareholders resembles the Tiebout voters of fiscal federalism. They "reside" wherever the package of returns and other V-type expenditures contribute most to their utility, given the price at which the shares trade. Unlike the usual application of the Tiebout model, shifts among the shares of firms have very low transactions costs. Must such portfolio adjustments can be undertaken without influencing other aspects of their lives (as with location dependent, friends, family, information, jobs, amenities etc.).

In the limit the Tiebout model suggest that shareholder votes would converge toward unanimity as shareholders sort themselves among firms according to the package of services (here share returns and a vector of V-types of expenditures) and share prices. This turns out to be the case. Incumbent boards of directors routinely receiving 90% or more of the votes cast by shareholders.[8]

This process creates a significant barrier for pure profit maximizers to overcome when attempting to "take over" a firm that is spending non-trivial amounts on S-type activities.

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[8] See the Harvard Law School Forum on Corporate Governance. Here, it should be noted that relatively few shareholders actually cast votes in elections for the board of directors—far less than participate in most democratic election—even primaries and local elections which tend to have turnouts far below those of national elections in the United States.

Only cases in which the cost in terms of reduced profits and relatively low share prices is sufficient would shareholders be willing the sell their share at near-market prices. It may be partly for this reason that take-over bids are normally well above the current trading price of the target's stock. The premiums paid average between 30 and 70 percent, depending on the source and year. This suggests that deviations from profit-maximizing business practices tend to be those favored by its pivotal shareholders.[9]

Such premia imply that the takeover markets do not eliminate the non-profit oriented efforts of firms, because their shareholders generally support those efforts. In other words, some shareholders prefer to invest in "socially responsible" firms even if such firms do not maximize the firms profits in the long or short run. This is not a surprise from a organizational perspective. In electoral models, the possibility that voters have more than one argument in their objective function is taken largely for granted. There are guns and butter, not just guns. Thus V-expenditures may reduce profits while increasing share prices.

VI. Towards a More Complete Model of the Firm

In this section, an extended mathematical characterization of firm decision making is developed. It takes into account the possibility that firm owners may not themselves aim for profit maximization, that investments in rent-seeking and rent extraction are often profitable, and that intra-firm rent seeking absorbs part of any profits realized.

[9] Average premiums vary by year and by industry, but average premiums are reported to be in the range indicated for large firms. Reports on buyout premia can be found at the Statistica and Deloitte websites. For a useful overview see, https://deloitte.wsj.com/cio/what-makes-m-a-so-challenging-01654188458, which does not mention the possibility highlighted in this piece.

To explore the possibility that a firm's owners have interests that extend beyond narrow models of profit-maximization, we'll need to depart from the Marshallian model of perfect competition. In that environment, only firms that minimize their average cost of production can exist. Any firm whose, costs are even infinitesimally greater than that technological minimum would exit from that market—often through bankruptcy, if there is fixed capital. In the Marshallian environment only cost-minimizing (and thereby profit-maximizing) firms can be sustained under the usual textbook assumptions. Indeed, it is the only strategy that is viable for a firm. Any innovation in cost reducing management techniques will be copied as quickly as possible (and without transactions cost or information problems, this would be instantaneous).

However, if we adopt the Ricardian version of highly competitive markets where producers use different production methods and realize different degrees of inframarginal profits even when there are large numbers of rival firms selling homogeneous products, then competition is less constraining. This is also true of markets in which every firm in every industry produces a slightly different product and so faces its own slightly downward sloping demand curve. The latter are commonplace in today's markets with many variegated products produced by large enterprises earning quite different rates of return on their investments. These are the market environments of interest modelled in this section.

The simplest model of a firm's decision is:

$$\Pi = P(Q)Q - C(Q, w, r) \qquad (1)$$

Where P(Q) is the inverse demand function, Q is output, w is the cost of labor and r that of capital. The profit maximizing output is characterized by differentiating equation 1 with respect to Q and setting the result equal to zero (and assuming that the profit function is strictly concave):

$$\Pi_Q = [P_Q Q + P] - C_Q = 0 \qquad (2)$$

Which the implicit function rule implies can be summarized as:

$$Q^* = q(w, r) \quad (3)$$

An extended characterization of the demand function would imply that other variables such as average consumer wealth and the prices of other goods would be included in equation 3. But in either case, the firm's decision is pretty straight forward, it should simply determine the output that sets marginal revenue equal to marginal cost and sell it at price P(Q*).

The discussion above implies that such a characterization is gross simplification of the choice setting faced by such a firm—even when the essential (demand and cost functions) are as characterized. Other possible sources of profits include lobbying for trade protection that tends to increase demand by reducing competition from substitute products, which would imply that $P=p(Q, L_1)$, where L_1 is the extent of lobbying for such protection. Similarly the cost function is likely to be affected by governmental regulation R, which can also be affected by lobbying expenditures—which might generate reduced regulation, with $R=g(L_2)$, and $C =c(Q, w, r, g(L_2)$. And, of course, the profits realized are taxed in most places rather than tax free as in the core models, and the tax rate may also reflect efforts by lobbying (possibly by organized groups of firms), with $t=f(L_3)$. And, of course, intra-firm rent-seeking and shirking may be reduced via expenditures on institutional design. The later affect may be characterized as A=a(I) where I characterizes institution building investments, where are often ongoing rather than occurring only as a firm is created.

All this suggests that a more complete model of a firm's after-tax profits should be modeled as:

$$\Pi = a(I)(1 - f(L_3)[P(Q, L_1)Q - C(Q, w, r, I, g(L_2), L_1, L_2, L_3) \quad (4)$$

With new control variables I, L_1, L_2, and L_3 in addition to Q. Running the firm becomes a much more challenging and multi-dimensional choice.

Moreover, if the owner or pivotal shareholder is interested in more than profits, the objective function is no longer profits per se, but utility as with:

$$U = u(\Pi, V) \quad (5)$$

Where V might be considered virtue signaling, but for our purposes is simply expenditure unrelated to profit, with cost v(V), which transform the problem from a 1-dimentional optimization problem to a six dimensional one. Subtracting the cost of V from the profit function, substituting it into the utility function and then differentiating with respect to the control variables generates a family of first order conditions which characterizes the utility maximizing vector of output, prices, institutional investment, virtue signaling and lobbying efforts.

$$u_{\Pi}[\mathrm{A}(1-\mathrm{t})\,[P_Q Q + P - C_Q] = 0 \quad (6.1)$$

$$u_V - u_{\Pi}[\mathrm{A}(1-\mathrm{t})v_V] = 0 \quad (6.2)$$

$$u_{\Pi}[\mathrm{A}(1-\mathrm{t})][P_{L_1}Q - c_{L_1}] = 0 \quad (6.3)$$

$$u_{\Pi}[\mathrm{A}_I(-\mathrm{g}_{L_3})(1-t)(PQ - C)] - c_I] = 0 \quad (6.4)$$

$$u_{\Pi}[\mathrm{A}(1-\mathrm{t})][-c_R g_{L_2} - c_{L_2}] = 0 \quad (6.5)$$

$$u_{\Pi}[\mathrm{A}(-\mathrm{g}_{L_3})(PQ - C)] - c_{L_3}] = 0 \quad (6.6)$$

Each of the first order conditions provides some insight into how the firm owner(s) allocate their resources (which are assumed to be constraint by the requirement of positive profits). In each case, the firm owner's ideal expenditure sets the marginal utility generated by the expenditure equal to its marginal cost—where the marginal benefit in two cases arise from marginal reductions in taxes or costs associated with successful lobbying. In all but two of the cases, the first order condition can be simplified into just the effects on profits, as in the usual theory of the firm types of results. Moreover, as written, with the assumption that the same sorts of labor and capital are used in all of these activities, the results look very much like those of the neoclassical theory of the firm. The multi-dimensional version of the implicit function theorem implies that the quantities of output, investments in institutions,

and lobbying efforts are all, fundamentally functions of the cost of labor and capital used in the various activities of the firm.[10]

However, only one of the five activities is the conventional production activity, that in the conventional welfare analysis contributes to social surplus in the usual way. Nonetheless, many of the others affect output decisions by the firm and indirectly by the industry. For example if the firm's institutional efficiency increases or its tax and regulatory burden diminish, output tends to increase, because of effects on the firm's efficiency through lower tax and regulatory costs. All but expenditures on V are perfectly consistent with profit maximization.[11] Only an interest in V induces firm owners to engage in activities that are not directed toward increases in profits, albeit five of those activities are entirely absent from the economic theory of the firm.

V is assumed to have not effects on profits and so any expenditure on V necessarily reduces them. However, it should be acknowledged that some of expenditures that resemble V might affect both profits and owner satisfaction. For example, some of the expenditures on V might enhance local amenities in a manner that make it easier to attract talented persons to one's enterprise, or V may generate good will from local politicians which would make them less inclined to raise the taxes or increase regulations on their firm. However, in cases in which V directly generates owner satisfaction, the expenditures on V will be greater than that associated with increasing profits.

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[10] The rent-seeking literature suggests that lobbying activity is often counter productive for society as a whole—to the extent that the latter can be characterized with aggregate utility or net benefits. However, whether this is true varies with the extent of taxes and regulation in this case. If they are originally above the welfare maximizing level, lobbying to reduce them tends to increase welfare—albeit in a somewhat more costly way than might have been conceptually possible with a well-informed and utilitarian oriented electorate. If they were initially at or below welfare maximizing levels such lobbying would reduce social welfare both through their effect on the policies and the expenditures required to bring those reforms into place.

[11] Here it bears noting that corner solutions are possible for many firms. For example very small firms might spend little or nothing on institutional improvements or lobbying. Larger firms, however, are likely to be actively engaged in both sorts of activities.

Note that firms do not have to have monopoly power (e.g. face a steeply downward sloping demand curves) to engage the production of S. It is sufficient that firms are Ricardian in that they use different production technologies, have locational advantages, or exceptional entrepreneurial talent to be able to do so (e.g. be a participant in a Ricardian competitive market). Nor does a firm have to owned by a single individual to engage in such activities. Shareholders may hold similar beliefs, and such activities may be undertaken entirely for their benefit..

VII. A Digression on Expenditures on Institutional Development and the Evolutionary Aspects of Firm Governance

It is fortunate for a firm's founders that contemporary firms are not the first ones ever founded. Formeteurs all benefit from the successful institutional innovations of previous generations of founders. Some decision-making procedures "worked" in the past, and they can be copied. Such procedures identify market opportunities and sufficiently reduce problems of coordination, team production, intra-organizational rent-seeking to make an organization a value-increasing enterprise. In that way, previous investments in I tend to generate positive externalities for successive generations of formeteurs.

These systems of rule evolve as various refinements of the rule systems prove to work and others are discarded because they do not. Organizational innovations that appear to enhance success are copied by the next generation of formeteurs, and so on. For this reason, it can be argued that firms, at least potentially, are better able to maximize their profits than they have ever been before. And because of both the multiplicity of firms and their shorter lives (that allow faulty rules to be weeded out), that the organizing rules of firms are likely to be more fine-tuned to advance the goals of their founders than those of governments tend to be. As a result much larger economic organizations are economically viable today, than they were in the distant past (North (1990), Vanberg 1992, Witt (2007), Congleton 2016). The largest have more than a million employees and offices scattered around the world.

However, to say that evolution has improved economic institutions is not to say that all the problems have been solved. If all organizational problems had been solved, the principal-agent literature of the late twentieth century would never have been emerged. Such problems would have been merely hypothetical rather than real, and interest in them would have soon diminished. Thus further expenditures on I, institutional development, remain in the interest of most firms.

VIII. Conclusions: Similarities and Contrasts with Governments

Treating firms as organizations deepens the rational choice model of the firm by taking greater account of its internal structure, its relationships with governments, and the possibility that owners have diverse interests. All these are likely to influence the firm's allocation of inputs in ways that tend to affect profitability. Some of these are simply alternative ways of using the firm's resources—labor, capital, materials, and social connections—to increase long term profits. Others may advance the non-profit interests of owners and/or managers.

The electoral foundations of corporations are also relevant. Public choice analysis implies that pivotal voters matter. In the case of corporations, pivotal voters are likely to be major shareholders. In some cases, this would be the firm's founders, who often retain large blocks of voting shares for themselves. In other cases, large investment houses that vote the shares of their investors are pivotal. Insofar as a CEO is analogous to a president or prime minister in a democracy, votes in favor of status quo policies imply that a majority of shareholders (in terms of shares, rather than number of holders) approve of the firm's performance—including its charitable and other activities that reduce profits to some extent.

This effect is reinforced by the mobility that shareholders have relative to voters in national elections. This "Tiebout" competition among firms for shareholders tends to encourage firms to efficiently advance whatever combination of goals that shareholders favor. These interests nearly always include profits, of course, but also other services that have little to do with profits, but nonetheless may advance major shareholder interests.

Public choice models of elections and local government competition have always addressed such multi-dimensional issues. Consumer theory also does so, but for some reason the core models of the firm have not. That firms and firm owners often make gifts to non-profit organizations or support particular political parties is evidence of the multidimensional interests of firm owners. An extended model, naturally, takes account of ideological and other interests, and so can easily account for such policies. Shareholder mobility, in turn, helps explain why takeover efforts are not sufficient to eliminate such activities. That relatively large premiums are associated with takeover bids, suggests that major shareholders often accord significant value to their firm's non-profit oriented activities.

Rational ignorance, in turn, suggests that small shareholders tend to be less informed about the profitable prospects that a firm chooses among than large shareholders. That large shareholders tend to be pivotal voters implies that in addition to the Condorcet Jury theorem effects of majority-based elections, firm decisions tend to be relatively well informed. Although profits are not always—or perhaps usually—truly maximized, shareholders vote with "their feet" and hold portfolios of stocks the overall advance their goals better than others that their shareholders are aware of.

In this respect, shareholder portfolios may more closely resemble Tiebout equilibria than even a metropolitan region with many independent satellite communities. Competition induces firms to be relatively efficient, even if they do not maximize profits.

All the above suggests that firms rarely truly maximize profits in the manner modeled in the core neoclassical characterization of a firm's decision making, even in cases in which profits are the only goal of an organization's founders. It is unlikely that their institutions perfectly solve all the agency problems confronted—although they clearly ameliorate them—nor that competition is sufficient to eliminate any deviations from profit maximizing business strategies. It is sufficient to use currently "best" practices, rather than the truly best, which are yet to be worked out. In cases in which a firm's owners have goals that go beyond profits, activities that tend to undermine profitability are easily explained. A viability

constraint remains, however, so owners cannot do as much as they might like to in those unproductive activities, without killing the goose the lays the golden eggs.

Thus, the core neoclassical theory of the firm is not silly or totally misleading. Profits are a prerequisite for every firm's survival, without which the non-profit seeking activities would be impossible both by firm owners, employees, and governments that rely upon firms to beef up their tax bases. Firms have to be profit seeking even if when are not always interested in maximizing profits or successful in doing so.

References

Appelbaum, E., & Katz, E. (1886/2008). Seeking rents by setting rents: The political economy of rent seeking. In *40 Years of Research on Rent Seeking 1* (pp. 555-569). Springer, Berlin, Heidelberg.

Arai, M., & Heyman, F. (2009). Microdata evidence on rent-sharing. *Applied Economics*, *41*(23), 2965-2976.

Baysinger, B. D., & Butler, H. N. (1985). The role of corporate law in the theory of the firm. *The Journal of Law and Economics*, *28*(1), 179-191.

Behn, Bruce K., et al. "Deaths of CEOs: are delays in naming successors and insider/outsider succession associated with subsequent firm performance?." *Journal of Managerial Issues* (2006): 32-46.

Bell, B., Bukowski, P., & Machin, S. (2024). The decline in rent sharing. *Journal of Labor Economics*, *42*(3), 000-000.

Bititci, U. S., Ackermann, F., Ates, A., Davies, J., Garengo, P., Gibb, S., ... & Umit Firat, S. (2011). Managerial processes: business process that sustain performance. *International Journal of Operations & Production Management*, *31*(8), 851-891.

Black, D. (1958). *The Theory of Committees and Elections*. Heidelberg DE: Springer.

Brav, A., Cain, M., & Zytnick, J. (2022). Retail shareholder participation in the proxy process: Monitoring, engagement, and voting. *Journal of Financial Economics*, *144*(2), 492-522.

Congleton, R. D. (1984). Committees and rent-seeking effort. *Journal of Public Economics*, *25*(1-2), 197-209.

Congleton, R. D. (1989). Monitoring rent-seeking managers: Advantages of diffuse ownership. *Canadian Journal of Economics*, 662-672.

Congleton, R. D. 1991. The Economic Role of a Work Ethic. *Journal of Economic Behavior and Organization*, 15, 365–385.

Congleton, R. D. (2001). On the durability of king and council: The continuum between dictatorship and democracy. *Constitutional Political Economy*, *12*(3), 193-215.

Congleton, R. D. (2007). Informational limits to democratic public policy: The jury theorem, yardstick competition, and ignorance. *Public Choice*, *132*, 333-352.

Congleton, R. D., & Hillman, A. L. (2015). *Companion to the Political Economy of Rent Seeking*. Edward Elgar Publishing.

Congleton, R. D. (2016). On the evolution of organizational government. (Witt, U. Ed,). *Rethinking Economic Evolution: Essays on Economic Change and its Theory*. Edward Elgar Publishing.

Cowling, K., & Mueller, D. C. (2008). The social costs of monopoly power. In *40 Years of Research on Rent Seeking 2* (pp. 67-88). Heidelberg, DE: Springer.

Downs, A. (1957). An economic theory of political action in a democracy. *Journal of Political Economy*, *65*(2), 135-150.

Galbraith, J. R. (1977). Organization design: An Information Processing View, in (. *MA: Addison-Wesley*.

Godwyn, M. and Gittell, J. H. (Eds.) (2012) *Sociology of Organizations*: *Structures and Relationships*. Thousand Oaks CA: Pine Forge Press.

Grofman, B., Owen, G., & Feld, S. L. (1983). Thirteen theorems in search of the truth. *Theory and decision*, *15*(3), 261-278.

Greenwood, R., & Hinings, C. R. (1988). Organizational design types, tracks and the dynamics of strategic change. *Organization studies*, *9*(3), 293-316.

Harris, M., & Raviv, A. (2002). Organization design. *Management Science*, *48*(7), 852-865.

Holler, M. J. (2004). Coalitions and Power Indices. *The Encyclopedia of Public Choice*, 402-407.

Hillman, A. L. and Van Long, N. (1987). "Hierarchical Structure and the Social Costs of Bribes and Transfers, *Journal of Public Economics* 34: 129-142.

Krueger, A. O. (1974/2008). The political economy of the rent-seeking society. In *40 Years of Research on Rent Seeking 2* (pp. 151-163). Springer, Berlin, Heidelberg.

Macey, J. R. (1988). Public choice: The theory of the firm and the theory of market exchange. *Cornell L. Rev.*, *74*, 43.

Morin, R. A., & Suarez, A. F. (1983). Risk aversion revisited. *The journal of finance*, *38*(4), 1201-1216.

Niskanen, W. A. (1968). The peculiar economics of bureaucracy. *The American Economic Review*, *58*(2), 293-305.

North, D. C. (1990). *Institutions, Institutional change and Economic Performance*. Cambridge UK: Cambridge University Press.

Peltzman, S. (1976). Toward a more general theory of regulation. *The Journal of Law and Economics*, *19*(2), 211-240.

Olson Jr, M. (1971). *The Logic of Collective Action: Public Goods and the Theory of Groups, with a new preface and appendix* (Vol. 124). Cambridge MA: Harvard University Press.

Olson, M. (1982/2022). *The Rise and Decline of Nations*. Yale University Press.

Sandhu, S., & Kulik, C. T. (2019). Shaping and being shaped: How organizational structure and managerial discretion co-evolve in new managerial roles. *Administrative Science Quarterly*, *64*(3), 619-658.

Simon, H. A. (1991). Bounded rationality and organizational learning. *Organization science*, *2*(1), 125-134.

Steunenberg, B., Schmidtchen, D., & Koboldt, C. (1999). Strategic power in the European Union: evaluating the distribution of power in policy games. *Journal of Theoretical Politics*, *11*(3), 339-366.

Stigler, G. J. (1971). The Theory of Economic Regulation. *The Bell Journal of Economics and Management Science*, 3-21.

Tushman, M. L., & Nadler, D. A. (1978). Information processing as an integrating concept in organizational design. *Academy of management review*, *3*(3), 613-624.

Tullock, G. (1967/2008). The welfare costs of tariffs, monopolies, and theft. In *40 Years of Research on Rent Seeking 1* (pp. 45-53). Springer, Berlin, Heidelberg.

Tullock, G. (1980/2008). Efficient rent seeking. *Toward a Theory of the Rent-Seeking Society,* edited by JM Buchanan, RD Tollison, and G. Tullock, College Station: Texas A&M University Press.

Vanberg, V. J. 1992. Organizations as Constitutional Systems. *Constitutional Political Economy*, 3, 223–253.

Verle, K., Markič, M., Kodrič, B., & Gorenc Zoran, A. (2014). Managerial competencies and organizational structures. *Industrial management & Data systems*, *114*(6), 922-935.

Weber, M. (1904/1922). *Economy and Society*, Berkeley CA: Berkley University Press.

Witt, U. (2007). Firms as realizations of entrepreneurial visions. *Journal of Management Studies*, *44*(7), 1125-1140.